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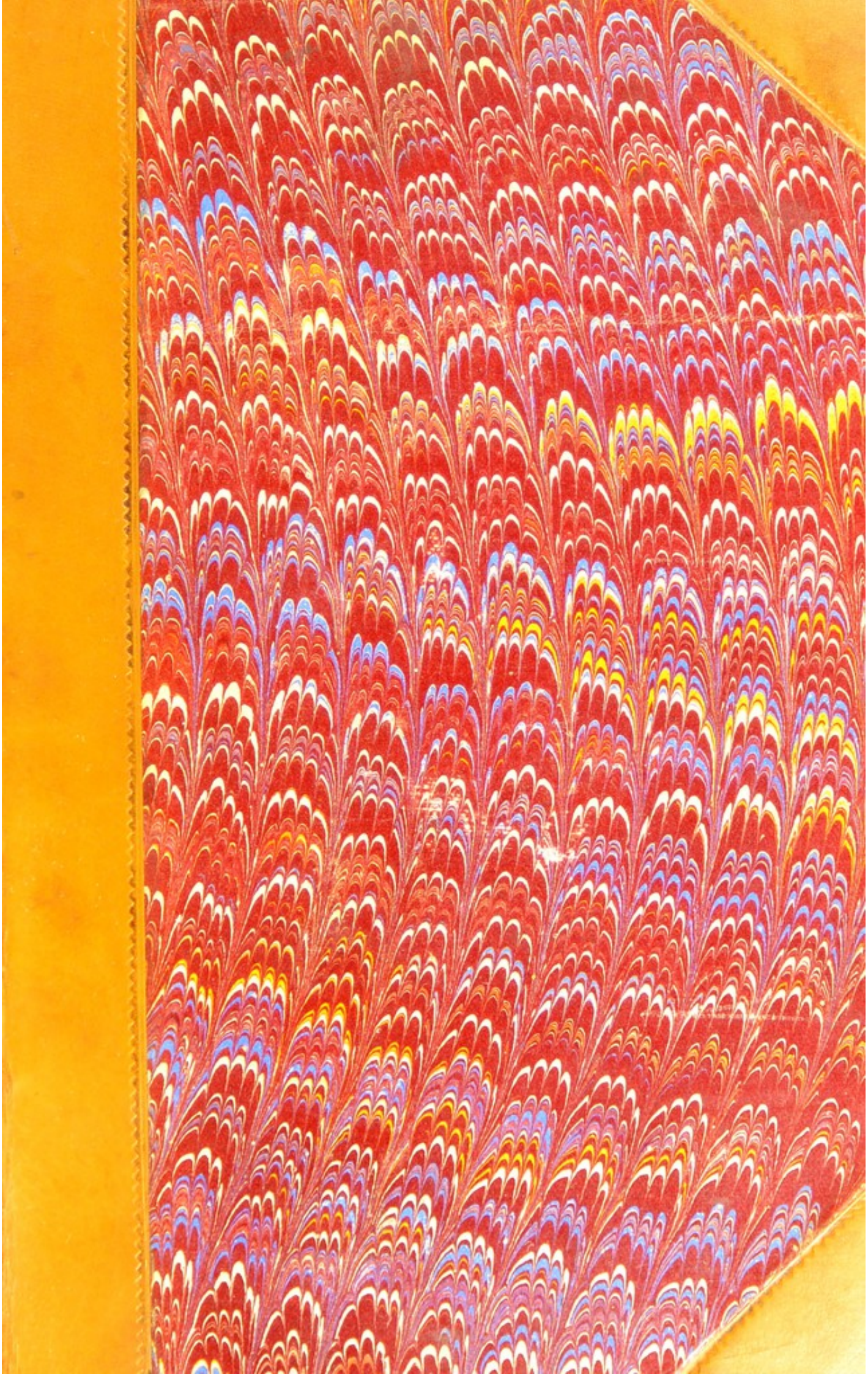
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A

PRACTICAL TREATISE

ON THE

DISEASES PECULIAR TO WOMEN,

ILLUSTRATED BY CASES,

DERIVED FROM HOSPITAL AND PRIVATE PRACTICE.

BIBLIOTH. COLL. REG. MED. EDIN.

BY

SAMUEL ASHWELL, M.D.,

MEMBER OF THE ROYAL COLLEGE OF PHYSICIANS, LONDON, AND

OBSTETRIC PHYSICIAN AND LECTURER TO GUY'S HOSPITAL.

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TO

BENJAMIN HARRISON, ESQ.,

TREASURER TO GUY'S HOSPITAL,

This Work

IS

JUSTLY AND GRATEFULLY INSCRIBED.

BY

THE AUTHOR.

PREFACE.

It is now more than twenty years since my attention was particularly directed to the important branch of Medical Science which constitutes the subject of the following pages. During a great part of this period, Guy's Hospital, with its extensive Lying-in Charity, and my own private and consultation practice in female diseases, have afforded me opportunities falling to the lot of few practitioners. I do not, however, on this account urge any exclusive claim to the publication of a work of this kind, nor do I ask for its opinions and practice any exclusive or undue deference; but I trust the truth of the principles, and the treatment recommended in the book, will obtain for it the sanction and confidence of my professional brethren.

The disposition to publish has been strengthened by an opinion I have long entertained, that practitioners, who hold important public appointments, are bound, so far as their sources of authentic information can be made subservient, to improve and increase the common stock of professional knowledge. It may, too, be urged in favour of my attempt, that some production of the kind is really wanted; for, while we possess many valuable individual essays on female diseases, there are few complete and practical works.

This treatise was commenced years ago, and but for its difficulty and extent, it would long ere now have been completed. It must be remembered, that it is strictly devoted to pathology and treatment, not to anatomical detail and physiological research. The latter sciences will therefore be introduced for the sole purpose of illustrating disease and the influence of remedies; further they would be irrelevant.

Numerous cases are narrated, in order that their symptoms may show whether the histories of the various diseases are accurately given, and from their successful or unfavourable issue, the danger of the malady and the worth of the treatment may be demonstrated. These motives will, with practical men (and for them I have written), sufficiently apologize for the increased size of the volume. Perhaps it may be also urged, that cases add greatly to the interest of an elementary work, as they relieve the dullness from which a constant repetition of principles, without such portraits, is nearly inseparable.

The book contains little which is not the result of my own practice and observation; and if I have not quoted largely from the works of others, it has not arisen from any want of due appreciation of their excellence, nor from an unwillingness to acknowledge obligation, but from a conviction that every practical book ought mainly to rest on what its author knows and has proved for himself to be true and valuable. Where such is the case, a writer naturally uses a phraseology of his own; the dress in which he appears before the public is seen to belong, not to another, but to himself; and there is, consequently, a consistency of arrangement and character throughout the whole. Nevertheless, it will be seen on perusal, that I have

not omitted to mention the names of those from whom I have derived assistance.

Many formulæ of remedies are appended to the various chapters, and this has been done, because it harmonized with the practical plan I had prescribed to myself; and because there are young practitioners without sufficient therapeutical knowledge, and older ones with too many demands on their time, nicely to test the value, and accurately to determine the doses and other important conditions on which the efficient use of remedies so much depends.

My aim has been, to produce a treatise on female diseases, true, simple, and practical, which may form a safe and efficient guide to the elucidation and curative treatment of many of these intricate, rapidly-progressing, and dangerous maladies. If success attend the effort, that alone will be a sufficient reward for the labour I have bestowed on the work. I have endeavoured to write in a plain and perspicuous style, with scrupulous accuracy as to facts; and in reference to opinions and treatment, nothing is recommended, the probability or worth of which my own experience has not confirmed.

The first part of my undertaking is now before the profession, and in reference to it I may say, in the words of the great and lamented Dr. Gooch, "When an author attempts to execute his own view of a subject, he is the last person in the world to judge whether he has succeeded or failed. When he has finished his book, it is impossible for him to see it in the same point of view, and in the same light, as the public will: and as he himself would, if he could forget its thoughts and phrases, and read it with a fresh and impartial mind: he may show it to a judicious and well-informed friend,

but this is a poor thermometer of public opinion: the only one is publication, and to this I must trust the fate of my volume."

In conclusion, I acknowledge with pleasure some valuable assistance afforded me by the late Mr. Tweedie, Dr. Lever and Dr. Oldham, the Obstetric Assistants of Guy's Hospital.

Grafton Street, Bond Street, London.
November, 1844.

P.S.—I take this opportunity of gratefully acknowledging the following letter :—

Boston, America, August 14, 1843.

Dear Sir,

The Massachusetts Medical Society is in the habit of republishing annually some volume of practical utility, and distributing a copy to each of its members. For this purpose, the Committee of Publications has the present year selected the first part of your treatise on the Diseases Peculiar to Women; the second part not having reached us in season to accompany it. Believing that it may afford you some gratification to know, that your labours are appreciated on this side of the Atlantic, and are conferring a special benefit on six or seven hundred physicians in Massachusetts, we have taken the liberty to send you a copy of our edition.

With much respect,

Very truly, your obedient servant,

Dr. Ashwell.

ENOCH HALL, M.D.,
Chairman of the Committee.

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A PRACTICAL TREATISE

ON THE

DISEASES PECULIAR TO WOMEN.

PATHOLOGY OF FUNCTIONAL DISEASES OF THE UTERINE SYSTEM.

I PROPOSE to comprise the diseases peculiar to women in two divisions. In the first, I shall place the functional; and in the second, the organic sexual diseases.

A few preliminary observations on the pathology of each of these classes may explain and illustrate what is subsequently to be advanced. The functional are more complicated and less easy of accurate diagnosis than the structural diseases. It is often difficult to assign a precise locality to the former, as few of them are exclusively confined to the uterus, but exert, through the medium of the ganglionic system of nerves, an extensive constitutional influence. The difficulty is not so great in determining the seat and degree of an organic lesion. A functional disease is one *which is dependent on deviation from the natural or healthy action of any part of the organization, indicated by symptoms during life, which, after death, are found to be unconnected with discernible changes of structure.* Contrast such a disease with cancer or scrofula, essentially organic maladies, and the difference is striking. In the latter, any part which is attacked will suffer conspicuous changes of its texture and con-

formation. Functional uterine affections are mainly dependent on the derangement of menstruation; such, for instance, as chlorosis, amenorrhœa, and dysmenorrhœa, profuse menstruation, menorrhagia, and in some measure leucorrhœa. In all, there is a deviation from the standard of uterine health. In chlorosis, amenorrhœa, and dysmenorrhœa, there is scantiness of the catamenial secretion and pain; while in menorrhagia and its varieties, there is profusion and excess; results indicative, probably, of marked difference in the nature of the primary affection, both of the organic nervous system and of the circulation. In health, the catamenial secretion is generally of the colour of the venous blood, perhaps slightly more florid, but less viscid and without the power of coagulation, never separating, as blood does, into its component parts, however long it may be kept. Ordinarily, it occurs once in every lunar month, and without pain, the process continuing for three, four, or five days, and the excretion amounting, in quantity, to three, four, or five ounces; the fluid having a faint and sickly, and occasionally an offensive odour, quite different from blood, and but little disposed to putrefaction.

There is considerable variety in these particulars. In some women, menstruation is performed more, in others, less frequently. In one individual, the amount of the secretion exceeds, while in another, it falls short of the usual quantity, differing also in its quality or character. So far, however, as my observation extends, at least within certain limits, regularity in the periods of menstruation appears of greater importance than either the absolute quantity or quality of the fluid. Nor must it be forgotten, in estimating the influence of menstruation on the health, that the catamenial secretion is peculiar to the female of the human race. There is no analogous secretion in other animals. Their uteri are neither so thick, so capable of development during pregnancy, nor so vascular; nor in any of them, not even in those species of apes which walk nearly in the erect position, have we any proof that the mucus discharged during the œstrum, is furnished by the uterus; it is thought to be almost entirely a vaginal fluid.

Menstruation may with truth be said to be a function of the highest importance to women; so intimately connected with

the whole of their economy, that its partial or entire suppression, may and does often induce serious and sometimes fatal disease.

It might have been supposed that there would be structural or physical changes in the uterus, concomitant with these affections. But it is not so; for, if the undeveloped organization of the uterus and ovaria, in chlorosis, be excepted, there is little discovered by post-mortem examination, to account for these derangements.

Even in protracted and incurable menorrhagia, which occasionally destroys life, by giving rise to dropsies and other secondary diseases, if there have been no morbid growths coexisting, the uterus will not yield evidence of much structural disease. An increased softness and paleness of its parenchyma and lining membrane, will generally comprise the whole of the visible organic change. The same may be said of amenorrhœa and dysmenorrhœa. Beyond hypertrophy and congestion in the latter affection the organization generally continues unaltered.

The local symptoms accompanying these affections, excepting dysmenorrhœa, are usually slight and obscure. The constitutional derangements, on the contrary, although functional and sympathetic, are severe and extensive. Thus, it is common in chlorosis, amenorrhœa and dysmenorrhœa, as well as in menorrhagia, but particularly in the former, to have marked disturbance of the nervous, vascular, respiratory, and digestive systems; pointing to the fact, that the womb and its appendages derive their nervous energy from the organic nervous system, while the external genitals derive their supply, almost entirely from the spinal marrow. Thus are the internal and external organs of re-production, in great measure, functionally independent of each other. Even paralysis of the lower extremities and external organs may exist, without a similar want of power in the conceptive faculty of the ovaries and uterus.

The proximate cause of these functional maladies has excited a good deal of controversy. Chlorosis ought to be attributed to an impoverished circulation and undeveloped ovaries. Dr. Hamilton, seeing that costiveness frequently precedes and accompanies chlorosis, erroneously, I think, regards this

state as its cause. He also denies the influence of the genitals on the general health, and says "that castrated and spayed animals suffer certain changes of constitution, but they retain the enjoyment of perfect health. Reasoning from this analogy," he says, "I do not understand how the influence of the female genitals can be so great, as that its partial suspension should occasion retention of the menses, or should induce chlorosis." I think Dr. Hamilton is in error here. In the case of castrated and spayed animals, puberty was either already present, or would have occurred, but for the castration. In early chlorosis, on the contrary, puberty is absent when it ought to exist, and the subsequent evils are not so much the result of the absence or abstraction of the genital organs (for in Mr. Pott's celebrated case the woman lived and did well after the removal of the ovaries), as of the early deficiency of vital energy or power, of which the costiveness, equally with the chlorosis, is one of the results. This author overlooks, in the conservative effects of life, when important organs have been taken away, the injurious and sometimes fatal consequences of such a congenital deficiency of vital power, as shall permit the reproductive apparatus to remain partially or entirely undeveloped, and who can measure the amount of the injurious effect? The examples, therefore, are by no means analogous. Amenorrhœa is connected with a torpid and inactive state of the generative organs, excepting in those cases where, from a variety of causes, marked derangement of the uterine circulation exists. Dysmenorrhœa, as a functional disease, appears to be most frequently induced by irritation more or less acute, by a low inflammatory state of the uterine mucous membrane, or by an active, or even slow congestion of the uterus. Menorrhagia and profuse menstruation may arise from different conditions of the capillaries, which are sometimes over-distended from repletion; and at others, having lost their tone, permit the passive exudation of their contents.

PART I.

FUNCTIONAL DISEASES OF THE UTERINE SYSTEM.

CHAPTER I.

OF CHLOROSIS.

DEFINITION.—*A peculiar affection of the general health; in which debility, languor, and deranged stomachic functions are prominent symptoms; most frequently occurring when puberty is or ought to be established, although it may exist at any subsequent period, always characterised by anæmia of the system, and a yellowish, dirty green pallor of the surface; when a disease of early youth, almost invariably connected, either with entire absence of menstruation, or with a scanty, painful, and irregular performance of the function, and if a disease of later life, in addition to these causes, it may have been preceded and produced by menorrhagia, or leucorrhœa.*

History and Symptoms.—In furnishing these, precision is important, as chlorosis presents itself in *three* forms: as a *mild* and *incipient*, an *inveterate* and *confirmed*, and a *complicated* disease.

The incipient and *mild form* commences almost unobserved: the patient has been, perhaps from infancy, or at least for some years previously, delicate and feeble, so that anxiety has existed about her; but now, at the age of twelve, thirteen, or fourteen years—without any obvious exciting or morbid cause, other than a negative one, the non-establishment of puberty—a series of distressing and perplexing symptoms are ushered in,

and observation is more especially directed to her, because an important epoch in her life has arrived. Hitherto she has been delicate, but there has been probably no disease. Now she excites apprehension from the gradual but evident decline of her health, in connection either with the entire or partial absence of menstruation. She does not pass on to womanhood.

Such a patient is languid, soon fatigued, and therefore inactive; she is not cheerful, but dull, and listless; sometimes perverse and sullen, and prone to solitude. Her appetite is capricious, it either fails altogether, or she craves for unwholesome food. Her complexion is altered; although always pale, it is now much more so; the bowels are constipated, the tongue is of a dirty, pasty white, the breath is offensive, she suffers from flatulence, the slightest exertion fatigues and induces short breathing; frequent, severe, and peculiar head-aches, palpitation of the heart and pain in the side, are common occurrences; the pulse is quick, weak, and compressible, and sometimes fluttering. The catamenia, if not absolutely retarded, have scarcely appeared, the discharge having been pale in colour, and scanty in quantity.

The symptoms already described, in an aggravated degree, and some new ones, attend *inveterate* and *confirmed* chlorosis. The debility, langour, and listlessness, are more marked. The depression is more complete, the appetite is more morbid, with a desire very often for slate-pencil, chalk, acids, pickles, and other things equally pernicious. The complexion becomes still more characteristic: it is a yellowish, dirty green, and the lips, gums, conjunctivæ, and lining membrane of the mouth, are bloodless; the tongue, too, is of a still paler white, and being soft and flabby, it is easily indented by the teeth; the breath is more offensive; there is nausea; sometimes vomiting and frequent heartburn; the bowels, although generally constipated, are occasionally in a state of irritable and painful diarrhœa. There is acute and anomalous headache, attended by every variety of distressing sensation, such as heavy weight in the front or at the back of the head, vertigo, fixed and intense pain in one particular spot, paralytic feeling and neuralgia. There is a dark line underneath the eyes, about the alæ of the nostrils and at the angles of the mouth; the eyelids are dark and œdematous in the morning; the ankles and legs are frequently so

at night; the cellular or soft tissues are flaccid, and the surface generally, especially of the upper and lower extremities, is cold. If menstruation has continued up to this time, its intervals become more distant, the discharge itself is very scanty, continuing to flow only for a few hours, and in quality it is often serous and pale, and of offensive odour. There is sometimes a general dryness of surface; the skin is no longer resilient; there is a splitting and brittleness of the finger-nails; the hair loses it glossy brightness, falls off in large quantities, and alters in colour. It is not uncommon in advanced chlorosis, for the abdomen to be full and painful; and without decided phthisical complication, there may be slight, short cough, pain under the left mamma, and hysteria in a variety of forms. At this period, one or several symptoms being confirmed, so far mislead as to induce the belief, that the lung, the brain, the liver, or the heart may be organically diseased. Such is the malady when fully developed.

Complicated chlorosis consists in the presence, in greater or less degree, of the general symptoms of the disease, with a more prominent morbid affection of some distinct organ or part of the system.

Predisposing causes.—A delicate, feeble, and undeveloped constitution, where the circulation and nervous power are inadequately exerted to perfect the organization of the body, in consequence of which the evolution of the ovaries is delayed, and their peculiar influence on the system, and particularly on the uterus, is withheld; thus, puberty is only imperfectly or perhaps not at all established, and menstruation, which must be preceded by puberty, is absent. At a later period of life, when even married women and widows are the subjects of chlorosis, its predisposing cause is most frequently derangement of menstruation; there is either retention, irregularity, or pain, and difficulty in the performance of the function. Nor must it be forgotten, that profuse menstruation, menorrhagia, and chronic leucorrhœa, may induce chlorosis.

A damp, cold, and marshy locality, insufficient and innutritious food, the late hours and excitement of fashionable life, the sedentary employments of the poor in crowded and ill-ventilated factories, where the temperature is high and the smells are

offensive, in fact, whatever relaxes and enfeebles the system, at any period of life, and especially at an early age, predisposes to this disease.

Chlorosis is occasionally met with in our own sex, and I certainly have seen one or two well marked instances of it.

Exciting causes.—Circumstances which depress the mind, and keep the feelings in a state of painful suspense or delay, unrequited affection, an attachment which is opposed on account of its imprudence, separation from family and friends, the sadness occasionally induced by being at school. Habitual constipation of the bowels, according to Dr. Hamilton. Amenorrhœa, leucorrhœa, and menorrhagia; excessive venereal indulgence, and manustupration, weaken the powers generally, and especially the tone of the sexual system, and thus conduce to chlorotic disease. In all these causes, the impaired influence of the organic system of nerves may be traced, not only on the ovaries and uterus, but also on the organs concerned in digestion, circulation, and respiration.

Pathology of chlorosis.—It may probably be fairly assumed, certainly it is the most prevalent opinion, that chlorosis primarily depends on a morbid condition of the blood, which secondarily affects the ovaries and uterus, by retarding their growth. This opinion is supported by the fact, that in the blood of chlorotic patients there is an increased proportion of the serum, with a marked diminution of the crassamentum. This has always been my view of the disease; nor would it be difficult to trace to this morbid condition of the blood, many—nearly all the different theories which have been propounded.

Gooch and Andral pointedly allude to the deteriorated quality of the blood; the former in his published lectures,* says, "If in girls who have attained the age at which this change is customary, the sexual organs are not developed, a deranged state of the constitution occurs, characterized by peculiar symptoms," &c.—"In addition to the other circumstances just enumerated, the quality of the circulating fluid is, in chlorosis, altered; blood has been taken by way of experiment, and it has been found to be of a pale red colour and

* Vide Gooch's Lectures by Skinner, page 7.

watery, like the juice of a cherry." After thus acknowledging that the sexual organs are not developed, and that the blood is morbidly altered, Dr. Gooch, inconsistently, I think, condemns, as entirely groundless, the opinion that chlorosis depends on the absence of the physiological influence of the ovaries; and yet a little further on, in explaining his own views, he says, "that chlorosis depends on a want of that constitutional vigour, by which the sexual organs may be brought into action; that to this deficiency may be imputed the failure both of their development and functions. At the period of puberty, the constitution has not only itself to nourish, but it must have energy to rouse and excite to action a new set of organs; it must supply the materials for an increase of their growth, and all other purposes incident to their functions." Dr. Gooch could not more accurately have explained the course by which the blood, when impaired in quality and diminished in quantity, delays puberty and menstruation, and in their stead allows the establishment of chlorotic disease.

Andral's observations on the anœmia of chlorosis are so confirmatory of the views now expressed, that I cannot resist their entire quotation.

"The expression,* general anœmia, if taken in its rigorous signification, is incorrect; for the system can never suffer the total and complete absence of blood, without the heart ceasing to act, and the other phenomena of life becoming extinct. The term hypœmia would therefore be more correct. The quantity of blood in circulation may, however, be so diminished, as no longer to penetrate the minute vessels of the cutaneous surface, in which it place is supplied by a thin serous fluid; and after death, a deficiency or even total absence of blood is observed, not only in the large arteries, veins, and right side of the heart, but likewise in the capillary system, which is remarkably pale and colourless. In these cases the membranous and parenchymatous tissues, such as the brain, lungs, liver, kidneys, alimentary canal, and the parenchyma of the heart and muscles, are also remarkably pale and exsangueous."

* Vide Pathological Anatomy, translated by Townsend and West. Vol. I, pages 97 and 106.

Andral again says, "In chlorosis several of the morbid phenomena first recorded are constantly observed; and if this disease, as is now generally admitted, frequently results from a defective formation of the blood, the cause of which may reside exclusively in the nervous system, can we with any show of reason refer either to irritation or sanguineous congestion, the proteus-like variety of functional derangements which chlorotic patients so constantly present, such as epileptic paroxysms, convulsions, chorea, dyspnea, palpitations, vomiting, &c.? Or, shall we not approach nearer the truth, in assigning these different morbid phenomena to the same cause, which produces them in persons who are reduced to a state of anœmia, by the deprivation of food, light, and wholesome atmosphere? We may appeal to the test of experience, to the lædentia and juvantia, for the further confirmation of this doctrine. Venesections employed in such cases to combat an irritation, which in reality does not exist, invariable produce a marked aggravation of all the symptoms; on the contrary, it frequently happens that by stimulating the nervous system of these chlorotic patients by the physical and moral emotions of matrimony, we produce a more natural complexion and colour of the whole cutaneous surface, thus indicating a correspondent improvement in the process of sanguification, and in proportion as the anœmia disappears under the influence of this new modification of the nervous system, the whole train of diseased action, the difficult respiration, constant sensation of uneasiness and listlessness, impaired digestion, gastralagia, vomiting, tympanitis and limpid urine, together with all the strange nervous symptoms, which seemed dependent on some organic alterations of the solids, gradually subside and eventually vanish, as a fresh supply of blood is generated in the system."

Diagnosis.—It will be allowed, after what has been advanced, that chlorosis is not an inflammatory disease. It is indeed most intimately connected with anœmia, and closely resembles (except in the pale greenness or dinginess of the skin,) that state of system which is the result of hemorrhage or any undue secretion. Those symptoms, therefore, such as severe headache, pain in the side affecting the breathing, distressing action of the heart, and several others, must not and cannot, where proper

caution is observed, be mistaken for and treated as acute inflammatory affections. From the want of this caution, I have witnessed the very injurious consequences of such mistakes, the practitioner having forgotten, what in female disease it is peculiarly important to remember, that the severity of the pain, and the rapidity of the pulse, are generally indications of irritability and excitement, not of inflammation; demanding narcotics, carminatives, and at the most, counter-irritation, not bleeding, active purgatives, or spare diet. If my definition be correct, amenorrhœa, which may, and often does exist, quite independently of chlorosis, cannot be regarded as a synonymous disease. It is impossible, that there should be chlorosis without more or less of amenorrhœa, yet it is often seen, that there is amenorrhœa without any degree of chlorosis. It is quite true, that when amenorrhœa has not been cured or relieved—when it has produced, by its long continuance, extensive constitutional derangement—that then chlorotic symptoms will appear, and that, ultimately, the series of morbid phenomena constituting chlorosis will be clearly seen. Nor must it be forgotten, that chlorosis is itself a frequent cause of amenorrhœa, by its prevention or protraction of puberty, on which menstruation depends; and subsequently, even when the catamenial function has been established, leading to its partial suspension, and occasionally to its entire suppression. There will be no difficulty in distinguishing chlorosis from chronic affections of the abdominal viscera, especially from hepatic, splenic, and renal disease, or indeed from any morbid state, of which anœmia and pallor are prominent symptoms. The period of life, the peculiar aspect of a chlorotic patient, and the derangement of menstruation, will ensure a correct diagnosis.

In the *complication of chlorosis with amenorrhœa*, the ovaries and uterus are principally affected. Here the chlorosis may have existed for some time, preventing the complete establishment of puberty and menstruation, but allowing both in a partial degree. After some months, when the function entirely ceases, there is a marked deterioration of the general health, and the malady becomes a double or complicated one. It is chlorosis with amenorrhœa. Or this combination may gradually

occur, as the result of amenorrhœa, produced slowly and insidiously, after months or years of healthy and natural menstruation. I need not say that the latter disease is rare, the other is common, and, if protracted, dangerous. It is this complication with amenorrhœa which has led to the confusion of names; the symptoms of menstrual suspension being so intimately blended with the affection of the general health, as to have induced, in many minds, the opinion, that chlorosis and amenorrhœa are convertible terms, and that they really denominate one and the same disease. It is almost unnecessary to add, that these are the cases which so frequently terminate in health, if early, well, and sedulously treated. Under tonic treatment especially, the blood is improved, both in quality and quantity; the pallor of the surface disappears; there is a vigour of system never before possessed; and, prompted and sustained by this increased energy of the constitution, the various functions of the system are better performed; puberty is more fully developed; and thus, with or without the assistance of emmenagogue medicines, the catamenial secretion is regularly and pretty abundantly established. A few months demonstrate, that the transition from disease to health is at length safely, though tardily and with difficulty completed. Of course, in some instances, the duration of these chlorotic and amenorrhœal complications will be painfully protracted, and there will be an aggravated severity of symptoms, productive of great alarm. In such circumstances, it will be necessary to redouble, not the activity of the treatment, but the care and watchfulness bestowed upon the patient, so that we may discern immediately any indications of further complication; always remembering, how probable it is, in this climate at least, that phthisical disease may occur.

If the malady continues, although the treatment may have been ably and perseveringly pursued, parental alarm and professional anxiety will soon be heightened. There are instances, however, where the critical point in the disease may have arrived, before any treatment has been employed. Such maladies are prevalent, and present nothing unusual; delicacy of constitution, and imperfect menstruation, are events of every

day; and to the neglect and delay consequent on the commonness of the disease, many fatal results may be attributed. I have often, during the last few years, been requested to treat such patients, of whom, had I judged from what I heard, I should not have predicted any danger; and yet, on careful inquiry—and, in some instances, at first sight—I have been convinced that the case was all but hopeless. Chlorosis, combined with amenorrhœa, like other diseases, does not at once assume an aggravated form; the symptoms already described exist frequently for a long period in a moderate degree; and it would be wrong to deny, that there are cases in which, independently of treatment, the mischief gradually passes away. Change of air, a residence in the country, and more natural and out-of-door avocations, seem, by their combined influence, to lead to the development of puberty, and subsequently of menstruation and good health.

This, however, is not the usual course of events: more frequently after unsuccessful treatment, and peculiarly if there be entire amenorrhœa, some organ, the cerebrum, for instance, or the digestive apparatus, or the lung, becomes especially deranged; and the functions, dependent for their natural performance on the healthy condition of this structure, are disturbed, and, to a degree, marking the fact, that this is the organ or part peculiarly affected.

Complication of chlorosis with a discharge of blood from the stomach by vomiting.—This is not an unusual concomitant of protracted chlorosis and amenorrhœa. In such cases, the treatment may have been partially successful. The nutritious diet, and the tonic remedies, especially if iron has been used, may have improved both the quality and quantity of the circulating fluid. In this condition, the suspension of the catamenia continuing, congestion, or, according to the French, "engorgement," occurs in some of the organs of digestion and nutrition; irregularity of gastric and intestinal action is the result: constipation, pain, spasm, and nausea harass the patient; and, in an effort to cough or to vomit, a quantity of dark, venous-coloured blood is thrown up. It often happens, that these discharges observe a catamenial period, recurring every three or four

weeks;* there being in the intervals more or less of leucorrhœal secretion. I have seen patients alarmingly anœmiated by these hemorrhages, especially where the amenorrhœa has been of long standing, and where it has been greatly neglected. It is sometimes perplexing to determine whether the blood comes from the stomach, the lungs, or the mucous surface of the fauces and trachea; its quantity and colour will generally determine this point; although there are cases, where pulmonary bleeding is extensive, and where, from some quantity of the blood having been swallowed, and again rejected, by vomiting, it has acquired a dark hue and a clotted form, involving the point in still more difficulty. Doubt will not, however, be of long continuance; if the bleeding be pulmonary, there will be a prevalent cough, and a series of symptoms plainly denoting disease of the lungs. It is scarcely necessary to observe, that local emmenagogues are here peculiarly useful: the quantity of the blood is increased sufficiently to allow of the advantageous elimination of the menstrual secretion; and every effort must be employed to establish the function. Nor is it irrelevant to remark, that persevering and active treatment is generall successful, where the bleeding is not pulmonary; and I have seen two cases, where the hemorrhage has been large, and from the lungs, both of which yielded to persevering management.

Complication of chlorosis, with chronic derangement of digestion and nutrition.—In the milder form, there is always some disorder of these functions: but in its aggravated degree it demands much professional attention.

In these cases, we do not wonder at the emaciation which may have occurred: our only surprise is, that the functions of life should not have been even more interfered with. Patients in this condition eat scarcely anything; and the little they do swallow, is generally of the worst and least nutritious kind. I am aware that families and medical men are occasionally deceived on this point; but I am also persuaded, that in many instances, where I have been consulted, there has been no fraud, the patients not having obained food surreptitiously: and I

* Vide Chapter on Vicarious Menstruation.

may be allowed to remark, that although medical scrutiny and acuteness are never more useful than in these cases, yet that it is unwise and unkind to express a suspicion of this sort, without some tolerable proof. It is interesting to trace and to watch this complication. An impression every now and then exists, that such a patient cannot recover; she takes so little; her strength is so impaired; the whole system is so emaciated, that she seems only to wait for some favouring circumstances to induce phthisis; and if she be hereditarily or constitutionally predisposed to this fatal malady, the probability is that she will not escape it. And yet I know of no combination of chlorosis which affords such ample scope and reward to judicious, persevering, and observant treatment. It is rare for a structural change to occur in the stomach, liver, or intestinal organs, in the most protracted form of the disease, although it is common to see the largest amount of functional derangement. Nor are the attendant evils only physical. The mind, the disposition, the temper, are all disturbed. Gloom and despondency, ennui, irritability, and dissatisfied feeling, oft times exert an irresistible control over such patients; and when their present state is compared with what they were twelve or fifteen months previously, the contrast is lamentable indeed. Seclusion and solitary habits are frequently indulged, and require the watchfulness and penetration of the physician and the family. Nor are instances wanting, in which mental peculiarity has for a time assumed not only the appearance but the reality of insane aberration. Such individuals are seldom the subjects of high excitement; they are rarely violently insane. More frequently, they are in error on a few points only; or, giving up all for lost, as to their recovery, they indulge in depression and despair. It is unnecessary, minutely to describe the various indications of digestive disorder. They are so common, that they must be well understood. Nor can it be too strongly urged, that disorder of the general health, on which, perhaps, delayed puberty depends, and to which menstrual irregularity and suspension may be so often traced, is most intimately connected with the condition of the alimentary canal, and of the organs subsidiary to digestion; and if the peculiarities of the constitution, already pointed out, together with puberty and menstruation, especially modify the female economy,

it may be allowed that the state of the digestive organs exercises a more extensive and peculiar power in them, than in our own sex.

Complication of chlorosis with functional affection of the cerebrum.—There is scarcely any complication more difficult to relieve than this. The varieties, as to situation, and the differing degrees of intensity of the pain, are worthy of observation. In some individuals, the uneasiness of the head is general, but not severe; while in others, the site of the pain is limited, and so agonizingly intense, as scarcely to be endured. In not a few instances, the pain is periodical, and of neuralgic severity, while in others, it is so nearly constant, as to preclude mental or physical exertion, and almost to induce the belief that it must be connected with organic affection. Nor is it very uncommon to meet with fits of hysteria, chorea, and epilepsy, attributed by the patients themselves, and perhaps correctly, to the long-continued and painful affections of the head. These diversified degrees of suffering will, of course, be associated with a variety of morbid cerebral sensations: in some, there will be vertigo; in others, an overwhelming sense of weight. At one time, there will be paralytic sensation about the head and upper extremities; at another, a painful quickness of sensibility; and with many of these feelings, there will be morbid sympathy, of the stomach especially, as well as of the digestive organs and alimentary canal. Let it only be remembered, how these morbid actions will become blended, how irregularly and extensively they will affect the entire system, and it will not be difficult to conceive of the tedium and misery which these patients endure. It is consolatory to know, that, in by far the majority of individuals thus suffering, the affection of the cerebrum is functional, there is rarely structural disease; and if pressed for proof of this opinion, we may point to the numerous instances of recovery, even when the symptoms seemed clearly to indicate organic affection.

It is nearly impossible, within reasonable space, to describe the distressing and intricate morbid results attendant on this complication. There are, however, as already stated, not only shades of difference in the amount of suffering, but marked extremes; and I know nothing worse than the aggravated

cephalalgia peculiar to this disease: to call it a nervous or a sick headache, even of the worst kind, gives only a faint idea of the intensity of the evil; for I have heard many patients deliberately declare, that life would be undesirable, were it to be continued in association with this sad infliction. Temporary loss of memory and acuteness of perception, physical irritability, torpor, and derangement of the organs of digestion are amongst its most common consequences. Yet it is important to know, that there are, in most cases, limits, within which the morbid influence is confined. There are functions, with which, even this amount of suffering, does not greatly interfere. Such patients sleep tolerably well; their appetite is capricious, but not wholly destroyed; and, although nutrition is imperfect, there is not much or rapid emaciation — a circumstance in decided contrast with what is seen in chlorosis complicated with organic pulmonary change. It is not meant to be stated, that structural alteration never occurs, nor that ultimate recovery from the headache is invariable and certain. But, after having treated many of these diseases, and afterwards having watched them for a considerable time, I am disposed to believe that the cerebral structures, for the most part, remain unchanged; and that the cephalalgia of many months, and, in some rare cases, of years' continuance, is eventually completely lost, provided puberty and menstruation are fully established. The cerebral affections attendant on epilepsy must be excepted from this statement, and, perhaps, that highly nervous and paralytic tremor or shaking, which is sometimes the consequence of a very protracted chlorosis. Again, it must be remembered, that even epilepsy may occur without structural lesion, and that paralysis may sometimes be cured. There are two cases (Nos. 10 and 11) illustrative of these opinions, and confirmatory of the extraordinary curative effects attendant on the development or restoration of the sexual function.

The vascular system, especially the capillaries and the heart, is frequently implicated in protracted chlorosis; and, by patients and their immediate friends, such complications are viewed with much apprehension. Constipated bowels and severe headache, are common circumstances; but the entire

loss of the natural colour of the surface, œdema of the face and extremities, palpitation of the heart and syncope, are less frequent, and wear so formidable an aspect, as to excite great alarm.

Ascites, I have rarely seen connected with the œdema of chlorosis; certainly not in early life: at a more advanced period, derangement and structural change of the liver or kidneys may, combined with chlorosis, induce effusion into the peritoneal sac. Such events are, however, rare. No doubt ascites in diminished quantity does occur, in the general tendency to serous effusion, which is so marked, when chlorosis is protracted; but it is not a formidable symptom in itself, and yields to the remedies which would improve the quality of the blood. When, however, the effusion is in greater amount, distending the abdomen; structural disease of the liver or kidney, as already observed, will be found to exist, when only palliative remedies can be employed. It is right also to caution the attendant and the family, against supposing that every hue of the surface, slightly more icterode than usual, is to be regarded as an indication that the liver is seriously deranged, and requires for its restoration mercurial remedies.

Complication of Chlorosis with structural change of the Lung.—The malady rarely terminates fatally, except in combination with phthisis, and the question is not unimportant, whether the phthisis be induced by it and amenorrhœa; or whether these latter affections do not owe their origin, at least in part, to the original phthisical tendency of the system. This predisposition may be dormant till the epoch of puberty; and then its injurious influence may pervade the entire system. One of the immediate results will be a want of energy—an imperfect development of the sexual character; and this failure of puberty, will lead to chlorosis and amenorrhœa. These latter affections will be the prominent, but not the real disease. Yet it is not astonishing that the chlorosis should principally arrest medical attention: it is the malady peculiar to the age: there are only few and slightly-marked indications of phthisis; and these, and even much worse symptoms, would be viewed as within the scope of the curative influence of menstruation.

Occasionally, phthisis may be induced by chlorosis and amenorrhœa; but, in by far the greater number of instances, the chlorosis only excites into activity, the previously latent tendency to this fatal disease;—an opinion which receives confirmation from the fact of the other complications rarely passing into this. There may have been extensive vicarious hemorrhage, excessive and long-continued leucorrhœal secretion, intense pain of the head, hysterical and even epileptic seizures, a highly morbid condition of the digestive organs, and a moderate degree of emaciation; and yet there shall be no phthisis. The individual shall recover from these morbid states, without even an apprehension of consumption:—nay more, there may be fearful protraction of these maladies, and yet there shall not be cough, pain in the side, or expectoration; so distinct is the line of demarcation between this and the other complications. From what I have seen, I am convinced that structural disease of the lung, is most frequently connected, either with chlorosis alone, or with chlorosis in connexion with amenorrhœa. For instance: a girl of consumptive family, arriving at the age of puberty, becomes slightly chlorotic; and soon, instead of the negatively morbid state which may have existed up to this period, there creeps on slowly, but certainly, a confirmation of the disease;—there is no menstruation; or, if the function be developed, it is only once or twice, and very imperfectly. Then, there is great cause for apprehension, not that the series of symptoms belonging to the other complications will occur, but rather that the anæmia and want of constitutional power, will favour the predisposition to structural pulmonary change: such patients are not altogether without appetite, the derangements of the stomach and the alimentary canal are not prominent symptoms, the cerebrum does not painfully sympathise, and frequently there is an entire absence of hysteria; but there is quickness of pulse; irregular action of the heart; rapidity and difficulty of respiration; more or less thoracic pain, frequently confined to the left side; a short, hacking cough, and emaciation. Inquire particularly, and it will sometimes be found, that there is in slight degree, both expectoration and perspiration. When patients have arrived so far, and sometimes,

happily, before they have reached this point, apprehension is roused, and medical treatment is eagerly sought.

Many such cases are occurring; and I wish the attention of practitioners, to be particularly directed to this complication. The vicissitudes of an English climate predispose to phthisical disease; and with the physiological circumstances peculiar to the sex, explain how it is, that girls so frequently die, at this epoch, of phthisis—in connection with chlorosis and amenorrhœa. If asked, what such a series of symptoms as I have just enumerated indicate, the reply must be, chlorosis complicated with a tendency to phthisis. And if it be inquired, what is the chance of entire recovery, a very guarded answer must be given.

To say that patients advanced thus far never recover, would be untrue: although it is perfectly right, to give a doubtful opinion. If the constitutional power can be augmented, if the blood can be improved in quality, and increased in quantity, then the symptoms may be arrested, and renovation of health may be slowly effected. A symptom of improvement, of great value, is, diminution in the rapidity of the pulse: for so long as the pulse beats 130, 120, or even 110 in the minute, it must not be supposed that any real amelioration has taken place. It will be necessary, also, to be guarded in the opinion we ourselves form: the same self-delusion exists here, as in phthisis at other periods. The patient is convinced, there is no occasion for alarm; and the disease often creeps on so insidiously, as to lead the family to believe, that there is no immediate danger. Let it, however, be remembered, that so long as there is a rapid pulse, short hacking cough, and a want of nutrition, there is real hazard. If, on the contrary, the pulse becomes slower, fuller, and softer — if the cough be less frequent—if the pyrexia disappear—and especially, if the patient gather flesh, in ever so trivial a degree—hope may be entertained.

Carefully treat such an individual: avoid mercury, drastic purgatives, and emmenagogues. Place her in the country, where she shall breathe pure air: let her diet be simple and nutritious (milk and animal food), and her medicine some of the various tonics; and the expectation may be cherished, that

the time is not far distant, when the sexual character will be fully developed, and the danger safely passed. From what has been stated, it must not be inferred, that this is the only fatal complication of chlorosis; but, comparatively, it is rare for the others to terminate unfavourably. Still, after continued derangement of the viscera of nutrition and digestion, the debility, pyrexia, and emaciation may become intimately blended with alteration of the pulmonary structure; and the cough, expectoration and morning perspirations, may become prominently influential, in bringing about final sinking.

I have thus attempted to distinguish the morbid circumstances appertaining to the different forms of this prevalent malady. And although the leading and distinctive features will generally enable us to determine the complication; still, when any form of the disease has become aggravated, severe and of long duration, the blending of symptoms may perplex the diagnosis. It ought to be remarked, that leucorrhœa in various degrees, is an almost constant attendant on chlorosis and amenorrhœa; and, when excessive, so seriously impairs the restorative powers, as to render the cure long and difficult.

I wish to particularise, as correctly as I can, the ages, at which, these various complications most frequently occur. Chlorosis alone, independently of amenorrhœa, is a disease of early life. In conjunction with menstrual suspension, it may be met with at any period, between the ages of puberty and the final cessation of the catamenia. Chlorosis conjoined with phthisis, may be seen between puberty and thirty years of age; sometimes later; but such instances are very rare, in comparison with the numerous complications of this kind, before the attainment of the twentieth year. Again, chlorosis with amenorrhœa or phthisis, at an early age, are forms of the malady, generally associated with debility and delicacy of system; while the other complications may exist at any period, and are not unfrequently combined with plethora or congestion.

Treatment of Chlorosis.—The treatment of chlorosis, to be extensively successful, must be early and most sedulously prosecuted.

It cannot have escaped observation, that the disease is one of almost universal influence: it is not confined to a particular organ, but affects the entire system: and yet, it is often productive of so much functional derangement, of so many isolated and painful affections, as to demand local treatment; which, while it shall be in complete accordance with the main principles of the cure, shall still be especially directed to ameliorate topical pain.

The reader, then, will be prepared for a classification of the means of cure;—an arrangement necessary, not only to prevent confusion and disappointment, but equally so for the attainment of that correct view of the malady itself, and of the particular stage which it may have reached, on which will depend the peculiar fitness of the whole treatment.

Thus, *first*, in mild chlorosis, either alone or complicated with amenorrhœa, the remedies will be principally of a constitutional kind, directed to the improvement of the general health, and to the establishment of puberty. If, when these points are gained, the uterine functions are not developed, the delay may perhaps be attributed to torpor of the organs of reproduction, and emmenagogues may be employed.

Secondly, When the disease is variously complicated, it often happens, that the organ, or part of the system principally implicated, becomes so prominently morbid, as almost to throw into the shade the original chlorosis and its accompanying amenorrhœa: but it must never be forgotten, that these have been the source of the complications, the soil in which they have sprung up. Here the treatment will require modification: it will, of necessity, be less constitutional, and must assume more of a topical and symptomatic character.

And, *lastly*, where structural alteration of the lung is threatened or suspected, the management must have especial and almost exclusive reference to this alarming complication; every measure being adopted to avert this greatest of all dangers. Still, even here, it must not be forgotten, that if puberty could be sufficiently developed to allow of even the partial establishment of menstruation, a very formidable feature of the complication would disappear.

It is evident, that a combination of means is required; medicine, alone, cannot accomplish all; and other measures, without medicine, will generally fail. Again, if it be remembered, that the disease is proteiform and of ever-varying degree, it will be seen, that constant and unwearied efforts are required, not only to vary the old, but to suggest new resources.

The treatment of the most common form of chlorosis, namely, that accompanying puberty, may be regarded as the type of the treatment of all the others; embodying the principles, which, with greater or less modification, are universally applicable. It is here, at the very threshold of the disease, when its character is not understood, or when it is treated empirically, that the greatest error is committed. It is viewed as a local, not as a constitutional affection; and many are the individuals who have been sacrificed to the vain and ignorant attempt of prematurely establishing menstruation; mercury, drastic purgatives and emmenagogues, having irretrievably destroyed the constitutional power and paved the way for phthisical disease.

It is not my intention elaborately to comment upon certain great mistakes in the *physical education* of female youth. And yet, I must be excused, if I direct attention to the diet, air, exercise, and clothing of the sex. It will readily be granted, that if, in these particulars, there is extensive deviation from the dictates of nature and common sense, there must be a proportionate risk of debility and disease. In our own changeable climate, it behoves the guardian of female youth to be especially prudent; and I am one of those who think, that it is scarcely possible to study these matters too closely. If the national practices in these particulars could be changed—and the remark applies with great force to the middle and higher classes of society living in cities and towns—chlorosis, imperfect puberty and amenorrhœa, would be uncommon, instead of being, as they are now are, extremely prevalent diseases.

Chlorosis is a rare affection in rural districts; where female youth are much in the open air, where it is not unfashionable to walk and run, and where it is not considered a gross viola-

tion of good breeding to sport and play with activity and vigour. Such girls acquire energy of system, each organ is developed, the blood is abundant and of excellent quality; nutrition is healthy, and puberty is attained without difficulty.

These remarks may serve as an illustration of the principles on which the treatment of simple and amenorrhœal chlorosis must be conducted: and while it is scarcely possible to present a succinct and specific history of the pathology of this and the other complications, it is not difficult to describe, with simplicity and tolerable accuracy, the order of morbid events and the medicinal means, by which, they are to be relieved if not cured.

I have already observed, that a morbid state of the blood, of which anæmia is the prominent feature, lies at the basis of the disease. This may be viewed as the clue, by which the intricacy of the symptoms may be unravelled: and it will equally explain the nature of the malady, whether the specific morbid impression be in the system generally, in an isolated organ, a particular texture, or in any of the fluids of the animal economy.

But, to be more precise:—I would commence the treatment, by special attention to the digestive organs and alimentary canal; for I regard the disorder of these, as second only in pernicious effect, to the peculiarity of constitution, already mentioned. Nor will the advantage of their improved condition be limited to themselves: the deteriorated quality of the blood and its defective quantity, may both owe their origin to impaired digestion and nutrition. I have already alluded to the jaundiced hue of the complexion and of the surface generally, as leading to the suspicion of hepatic disease. The diagnosis will be made, by a careful examination of the region of the liver itself, of the urine and the fæces; which will prevent the possibility of being misled by the colour of the lips and conjunctivæ.

At first, then, a due evacuation of the bowels must be daily secured; and much will depend on the kind of medicine by which this is effected. If mercury and drastic purgatives be frequently and largely employed, intestinal irritation will ensue,

evidenced by unhealthy and undigested motions, mixed with mucus, and occasionally with blood. If the purging be excessive—if it be exclusively relied on for the cure—debility and exhaustion will result, and, in place of amelioration, the whole of the symptoms will become aggravated and severe. The best aperients are aloes, rhubarb, the sulphate of soda and manna, and, if an alterative be necessary, the hydrargyrum c̄ cretâ. Nor must we forget, that an injection of a pint of warm water, two or three times a-week, into the rectum, is, of all measures, the most efficacious in aiding peristaltic action, and in removing the load of the large intestines. The compound decoction of aloes with the compound tincture of cardamoms; the compound aloëtic pill with the oil of cassia and hyosociamus, and the vinum aloes with the compound tincture of rhubarb, are the forms of these medicines I prescribe. The combination, with any purgatives or aperient remedies, of mild cordials, is exceedingly important. The following may be advantageously exhibited:

Pulv. Rhei ʒss. Magnes. Subcarb. ʒss. Conf. arom. ℈i. Aquæ Cinnamoni ʒix. Tinct. Card. C. ʒi. m̄ ft. Haust. bis terve in septimanâ sumendus.

Sodæ Sulphatis vel Magnes. Sulphatis ℥iss. Pulv. Rhei ʒii. Magnes. Subcarb. Sodæ Subcarb. aa. ʒiii. Pulv. aromatici ʒss. m̄ ft. Pulv. aperiens.

Sumat Coch. i. vel ij. parva, bis terve in septimanâ, ex aquâ purâ.

It is surperfluous, perhaps, to observe, that warm clothing, regular exercise, by walking, if it can be borne, if not, on horseback, are valuable auxiliaries; and, so soon as the repugnance to them can be conquered, nutritious animal diet and mild malt liquor will be productive of benefit. The improvement of the digestive organs, indicated by return of appetite and the natural and daily evacuation of the bowels, are generally accompanied by alteration of the complexion, and by the partial disappearance of the chlorotic hue; rarely by the immediate establishment or return of the catamenial secretion. At this crisis, some of the preparations of iron may be exhibited; and the sulphate is probably the most efficacious, and possesses more specific properties than any

of the rest. If the order of procedure, now pointed out, be reversed—if the iron be used before the bowels have been freely evacuated and their functional action improved, or while the tongue is loaded and foul—aggravation of symptoms will be produced; while, if there be only the peculiar debility and pallor, then the iron may be most beneficially tried. A single grain, or even two, may be given, twice or three times daily, combined with extract of hop, aromatic confection, and a single grain of extract of poppy or hyoscyamus. Occasionally, the effect of the iron is almost magical, especially where it does not confine the bowels nor induce febrile heat. The following form may be prescribed:—

Ferri Ammon. ʒiss. Extr. Humuli, Extr. Papav. alb. āā gr. xv. Ol. Cassiæ m. xv. m̄ ft. pil. xxiv. Sumat. i. vel ij. bis terve quotidie.

Where there is torpor of the system, flatulence, and hysterical depression, a tea-spoonful of the annexed mixture, in water, may be swallowed with each dose of the pills:

Tinct. Humuli, Calumbæ vel Gent. C. ℥iss. Tinct. Lyttæ ʒi. Sp. Ammon. arom. ʒiii. ft. Mist.

It is impossible minutely to describe every circumstance which may require medical management: in a lecture, much more may be accomplished. Still, we must keep constantly in view the peculiarity and the anæmia of the chlorosis itself. It will not, then, be difficult to vary and modify the treatment. In some instances, iron cannot be exhibited, or it may have been too early used: it may not have been employed in the right dose, or in the most desirable form. These, and numberless other minutiæ, demand sedulous attention. Quinine and sarsaparilla, gentian and zinc, are remedies of acknowledged power: and in a variety of instances, where the sulphate and other preparations of iron were injurious, I have given, with decidedly good effect, the following powder, either once or twice a-day:—

Ferr. Subcarb. gr. viii. Pulv. Ipecac. gr. i. Hydr. c̄ Cretâ gr. ii. m̄ ft. Pulv.

I have already alluded to the necessity for continued care in

the progress of the treatment; and the hope of cure must rest, not on the vigilance of a week, but on the perseverance and skill which shall keep in activity, for months, every part of the prescribed plan; not only the medicinal but likewise that which depends on air, regimen and active exercise. I do not dwell on the value of travelling; because it is universally admitted, that nothing contributes more to cheerfulness and health, than change of scene, of air, and of temperature. Chalybeate waters are sometimes extraordinarily efficacious; and a sea voyage has, within my own knowledge, been productive of entire cure, not only completing puberty but leading to perfect menstruation. — At what time shall emmenagogues be employed? When the health is so far improved, that there is less pallor, regularity of bowels, and more and better blood. Iron itself, is often an efficient emmenagogue. The use, every night, of the hip mustard bath and the local salt shower bath across the loins, topically affects the uterus, and induces the catamenial secretion. The ammoniacal injection, composed of one drachm of the pure liquor ammoniæ to a pint of milk, daily injected into the vagina, has proved efficient in the hospital.

I am not aware that any variation in this plan will be required in chlorosis complicated with amenorrhœa. Caution will be most needed in the selection of the time for the use of emmenagogues: but after what has been said now, and what is to be said hereafter, the reader cannot remain long in doubt.

The *iodide of iron* has been extensively tried, both in hospital and private practice, and with undoubted success; especially when glandular enlargements and other indications of a strumous habit, have been associated with the chlorosis. I give it in the subjoined form:

> Ferri Iodidi gr. xvi. Tinct. Calumbæ vel Gent. C. ℥i. Aquæ distillatæ ℥vii. ft. Mist. Sumat coch. ii. magna, bis terve quotidie.

Three or four leeches have been applied to the mammæ, on alternate days, with very doubtful effect as to the restoration of the menstrual function: nor can I speak more favourably of the employment, to the same organs, of mustard cataplasms.

Marriage frequently cures chlorosis and amenorrhœa: yet its good effects are not certain and invariable; nor is it uncommon to witness the aggravated forms of the malady in married life. A passing allusion is all that is necessary on its remedial influence; as in the chlorosis of early life, such a connection is unlikely and distant, and even at later periods, its existence is not a matter for medical discussion or control. Electricity deserves to be mentioned, as a local uterine stimulant; and I have seen many cases where its efficacy was decided.

The complications of chlorosis require extended and scrutinizing investigation; and perhaps enough has not been said of *hysteria* and *chorea*, as its combinations. The former, in differing degrees, is an almost invariable attendant on the malady; while chorea is rarely seen after twenty, and seldom after sixteen or seventeen years of age. The observations on the treatment of the various complications will be appended to the illustrative cases. By this method, the cases themselves will be rendered more interesting, and their peculiarities and plan of management more distinct and prominent.

In conclusion, let it be remembered, that the progress of these affections is often interrupted; domestic occurrences of a vexatious or painful kind produce frequent relapses; and the family as well as the patient, despond. Repeated attacks of cold, errors of diet, and a neglect of especial attention to the evacuation of the bowels, may be enumerated as the causes of delay. These, the address and practical skill of the attendant must control: and it is no slight tribute to his worth in such protracted cases, that the confidence of the invalid and of her friends is continued to him unimpaired. He must repeatedly urge, that while there is only one consistent method by which recovery can be accomplished, there are almost innumerable ways by which a simple case may assume an inveterate or complicated form.

CASES OF SIMPLE CHLOROSIS.

MANY OF THESE AND THE SUBSEQUENT CASES WERE REPORTED BY THE GENTLEMEN OFFICIATING AS CLINICAL CLERKS AT GUY'S HOSPITAL.

Case 1.

Mary ——— aged 14, an out patient (under Dr. Ashwell's care), January 6, 1835, is stated by her mother to have been from birth a delicate sickly girl, and frequently the subject of cough with mucous expectoration and pain in the left side. Her symptoms are entirely chlorotic. There is pallor of countenance, coldness of surface and especially of the lower extremities, lividity of the hands and of the tips of the fingers, and emaciation. Puberty appears partially established, as there is some development of the mammæ; the pulse is 120 and feeble; respiration quick and short; cough distressing at night with slight mucous expectoration; the bowels generally constipated, but occasionally purged; appetite capricious, dislikes all animal food, is fond of pastry, tea, and bread and butter. She is one of nine children, two of whom are girls and older than herself; and in both, the same symptoms have attended the establishment of puberty and menstruation. The tongue is loaded and tumid, and the mucous lining of the mouth is pallid and indented by the teeth. She resides in a confined narrow street, and sleeps in a small room, in which are three beds. There is at times a slight leucorrhœal discharge; the urine is scanty and high coloured.

Pil. Rhei c. gr. v. omni nocte horâ somni.
Julep. Ammon c̄ Magnes. ℥i. bis quotidie.

To live on beef-tea and arrow-root, and if possible, to be removed to a healthier residence.

Jan. 16. Her mother states that she caught cold when last out, but she thinks her bowels more regular. She is to continne the remedies.

26. The bowels are regularly and more healthily acted upon; the pallor is less; and the pulse does not exceed 98, fuller and softer; the tongne is nearly clean.

She is to continue the ammoniacal julep with magnesia two or three times weekly; and to take the following mixture:

Ferri Iod. gr. xviii. Tinct. Calumbæ ℥i. Aquæ distillatæ ℥vii.
ft, Mistura. Sumat coch. i. magnum ter quotidie.

A pint of mild ale daily, and animal food.

Feb. 10. Is greatly improved; complains of headache and throbbing of the temple; pulse 80, and full: bowels rather confined. Is to omit the iron for a few days; and to take ten grains of the colocynth and calomel pill every other night.

17. The bowels are quite regular; the cerebral symptoms are alleviated; but she complains of languor and debility.

Rep. Mist. et Cerevisia ut anteà.
Julep. Ammon. c̄ Magnesia ℥i. bis quotidie.

Is ordered to go in the country, and to be out much in the open air.

March 1. Is better in every respect; and is now requested, in addition to the remedies, to use the mustard hip-bath every night.

8. Has menstruated for three days, with little previous indisposition; and is so greatly improved, as not to require further treatment.

Case 2.

REPORTED BY THE CLINICAL CLERK.

Jane ——— aged 19, a native of London, a girl of ordinary stature, light hair, fair complexion, and brown eyes. Admitted May 2. She began to menstruate at 16 years of age, and has regularly observed a period of three weeks, until within the last two months. The only peculiarity connected with the catamenia, has been the light colour of the discharge. Her situation, as a house-maid, exposed her to very irregular hours; and her enumeration of the symptoms which attacked her, when in this capacity, seems to indicate the commencement of disorder of the general health. She suffered from headache, pains in the side, languor, and restlessness, which were succeeded, in two months, by a suppression of the catamenial discharge. Since this time, her disorder has increased, and she now presents the following symptoms:—The surface is uniformly of a very light-yellow colour, and in parts, assumes an icterode hue. Around the eyes, there is a darkened areola, and the integuments appear puffy. The prolabia, with the gums and the mucous membrane of the mouth and fauces, are exsan-

gueous. Tongue flabby, with indentations from the molar teeth on each side. The nails are brittle and the cuticle around them peels off. The legs are free from swelling. She experiences considerable dyspnœa on any slight exertion, and is very susceptible of fatigue. The appetite is capricious, but she has not manifested any particularly vitiated taste. Bowels naturally costive. The pulsations of the heart are loud, and the pulse full. No leucorrhœa. There is no fixed pain in any part of the abdomen.

Colocynth c̄ Cal. gr. x. statim.

May 6. Bowels well open. There is very little difference in the character of her symptoms, and the general surface remains pallid. There is a slight leucorrhœal discharge. A bellows sound accompanies the heart's pulsations.

Ferri Iodidi gr. xvi. Tinct. Calumb. ℥i. Aq. ℥vii. Cap. cochl. ij. magna bis die.
Habeat Cerevisiœ Oct. ss. quotidie.

She was kept on this tonic plan, with occasional aperients and daily exercise, until the end of the month. At this time she felt considerably improved. Apetite good; secretions natural; countenance still pale, although the yellow colour and dark areola had disappeared. At her request, she was presented. A week after her departure from the hospital, under the same treatment, the catamenia returned, and her countenance assumed a more ruddy aspect.

Case 3.

REPORTED BY MR. HENRY OLDHAM.

Harriet S———, aged 18; a girl of strumous diathesis; short; thin made, and rather inclined to emaciation. Admitted May 11. She was born in London; where she has continued to reside, being in service as a house-maid. She has always been delicate, but has not been the subject of any particular illness. She began to menstruate at 16 years of age, but has never accurately observed the regular periods. About five months ago the catamenia became suppressed, and have failed to appear since that time. This seems to be the date of her present illness. She now compains of fluctuating pains about the chest, left side, and back; sometimes in the loins, and which occasionally proceed down the thighs. She suffers severe headache giddiness, vertigo, muscæ volitantes, singing noise in the ears, with

other symptoms of imperfect cerebral circulation. Her arms, too, are sometimes benumbed; and the fingers deadened, so that she cannot grasp anything firmly. Her manner is hurried; and at times there are movements about her like the first indications of chorea. Several of the teeth have lately become carious. Her legs swell; appetite fickle; pupils dilated. There is a general pallid appearance, although this has been somewhat improved by a steel mixture, and occasional aperients, which she has taken as an out-patient. Bowels well open.

Ferri Iodidi gr. xvi. Tinct. Calumb. ℥i. Aq. ℥vij. ft. Mist. Cap. cochl. ij. magn. ter die.

May 16. Feels much better, looks more lively, and her appearance has improved. Complains of dyspnœa, on any unusual exertion. Bowels open; pulse small, quick, and vibrating. Has continued the iron mixture; was enjoined to keep the surface warm by sufficient clothing and was ordered to take exercise daily. Under this plan, her strength increased, she became stouter and of a more natural colour. She suffered headaches occasionally, which an aperient usually relieved; and on June the 4th, the following report was entered.

"The catamenia appeared two days ago, the discharge lasting only twenty-four hours. She has felt great relief from this circumstance; her general health has greatly improved; pulse 80; bowels well opened daily; tongue clean."

July 4. Presented cured.

Case 4.

REPORTED BY MR. FOOTE.

Charlotte ———, aged 26, an unmarried woman, with dark hair and eyes and chlorotic aspect. The menstrual function for the last seven years has been irregularly performed, there having been suspension for five or six months, and always a scanty flow. Her present symptoms are, palpitation, dyspnœa, cough, pains in the chest and loins and between the shoulders. Her legs are œdematous: she has no appetite; her pulse is 80, and soft; tongue clean; bowels confined.

Cap. Jul. Ammon. c̄ Magn. et Tinct. Card. Co. ℥i. ter die.
Beef-tea. Arrow-root.

June 20. Appetite slightly improved; still there is pain in loins and back.

Ferri Iodidi gr. xviij. Tinct. Calumb. ʒi. Aq. ʒvij. ft. Mist. Cap. coch. ij. mag. ter die.

Allowed one pint of porter daily; and of wine, an ounce and a half.

July 5. She has been improving considerably under the treatment, and makes but little complaint. Her bowels are very confined.

Pil. Rhei. co. gr. x. o. n. s.

Tinct. Castor. Sp. Lavand. Co. āā ʒi. Ammon. Subcarb. ℈i. Aq. Cinnam. ʒ vii. ft. Mist. Cap. cochl. ij. magna ter quotidie.

26. Face losing its chlorotic appearance; better in all respects.

Inf. Gentian. Co. Inf. Sennæ āā ʒvi. bis die sumend.

Aug. 4. The menstrual discharge, which appeared on the 1st, has lasted three days; complains now only of headache.

12. She was discharged, with her health and countenance very much improved.

Sept. 6. Returns to-day, to say that she is well. The catamenia have again appeared, in proper quantity, and for four or five days. Her cough, dyspnœa, and palpitation have not returned at all since the last period.

These few cases, selected from many similar ones, are sufficiently numerous to ensure a trial for the plan of treatment pointed out, and to demonstrate the importance of early and unremitted medical care. Neglect, in these instances, would probably have insured aggravation and severity; and instead of a cure easily accomplished, there would have been protraction, difficulty, and danger. It is worthy of remark, that the iron will not suit every individual; and although it has a more direct and salutary effect, where the uterine functions are torpid, than any other known remedy, yet the quinine must occasionally be substituted. I cannot forbear especially to urge the daily use of mild ale or porter; as, independently of its agreeable properties as a beverage, it greatly assists in the restoration of flesh and strength. If these cannot be taken, port, sherry, or madeira wines, with hot water and a little spice, will advantageously excite the stomach, and promote digestion.

The temperature of the body is often supported with difficulty in chlorosis; and as cold induces congestion, warm clothing and exercise are important adjuvant measures. The circulation of delicate girls is feeble and lymphatic; their stomach and bowels are soon deranged; and by such causes the uterine functions are interrupted and impaired.

CASES OF INVETERATE AND CONFIRMED CHLOROSIS.

I shall insert only two such—because it is easy, after what has been already advanced, to imagine an aggravated form of the malady. Still, it would not be right altogether to omit its illustration by examples.

Case 5.

Miss B——, æt. 27, March 1833, began to menstruate at 15, and till within the last three years has enjoyed good health. Since this period she has lived in town, and the catamenia have been gradually diminishing in quantity and in colour, till now the discharge scarcely lasts more than a few hours, and has lost all sanguineous tinge. The pulse is 108 to 120, irritable and easily compressed; the breathing is quick and short, on the slightest exertion; and the heart palpitates often and violently. Her depression is extreme, and she entirely desponds as to her recovery.

There is no acute neuralgic pain of the head, but she suffers much from vertigo and loss of memory. Her aspect is a dirty, almost green yellow, very much beyond the pallor of incipient chlorosis; the bowels are generally constipated, but occasionally much purged, the motions being highly offensive and dark. There is a fetid odour about the breath; frequent nausea, and sometimes vomiting; the cellular and muscular tissues are flabby, and the alarm of her friends has been especially excited by her progressive emaciation, and her icterode hue; the tongue, lining membrane of the mouth and lips, are of unhealthy paleness; there is a dark mark under the eyes, and at the angles of the mouth; the nails are chipped and dark; and the skin is dry. In addition to these symptoms she has frequent hacking cough; and although it is thought to indicate approaching phthisis, it evidently depends very much on nervous excitement; emotion or hurry invariably produces it, and there is no expectoration, pain in the side, or morning per-

spiration; on the whole there can be no doubt that this is a severe and aggravated case of chlorosis, as yet a functional disease, and one which will probably yield to persevering and careful treatment.

She was ordered the following:—

℞. Ferri Iodidi gr. xv. Tinct. Card. C. ℥j. Aquæ distillatæ ℥ vij. M. ft. Mist.

Sumat Coch. i. magnum ter quotidie.

℞. Pil. Rhei. C. Extr. Colocynth. C. āā ʒ ss. Hydr. Chloridi gr. v. Ol. Cassiæ gtt. xii. M. ft. Pilulæ xiv. Sumat ij. vel. iij. alternis noctibus.

Chocolate or coffee and broiled bacon for breakfast; roast or broiled meats for dinner, with mild malt liquor, especially ale; weak coffee or chocolate in the afternoon; and a sandwich, with a small quantity of ale for supper.

March 14. Is still feeble; although in several respects better; has less cough; breathing less quick; nor does the heart palpitate so violently. Has more appetite; the bowels are in a healthier state; and there is less leucorrhœa.

She is strictly to continue the same plan.

April 1. Is steadily improving; there has been a very slight menstruation.—Pergat.

April 14. Has had the catamenia for two days and a half; the secretion of good colour and large in amount; palpitation and pain of side much less; appetite improves very slowly; aspect clearer. Thinks the iron produces headache; pulse 100.

Omitte. Mist. c̄ Ferr. Iodid. Cont. Pilulæ.

℞. Infus. Rosæ C. ℥ vij. Tinct. Humuli, Tinct. Card. C. āā ʒ iv. Quininæ Sulph. ϑ i. Acid. Sulph. dil. ♏ x.

M. ft. Mist. Take one tablespoonful three times a day.

May 26. The catamenia have returned twice since her last visit; and the secretion has been altogether healthy. Is still far from strong; but the cough and all the distressing symptoms are so greatly improved as to leave no doubt of ultimate recovery; she is about to visit Tunbridge Wells. I saw this patient once more in the latter part of the summer, and she was entirely restored.

The next case is one of aggravated chlorosis, complicated with menorrhagia and leucorrhœa.

Case 6.

Mrs. B———, æt. 38, is the mother of six children, the youngest now, July 1837, four years old; she has been formerly weakened by over lactation, and by several bad miscarriages. Has been menorrhagic for the last three years, the discharge not only being profuse and clotted, but lasting for eight or nine days, with leucorrhœa in the intervals. A humid atmosphere has aggravated the disease; the aspect is highly chlorotic; the hue of the skin dirty white; and the dark marks about the eyes and angles of the mouth and alæ of the nose are especially apparent. It is scarcely necessary to say more than that every symptom of the disease exists in aggravated form, especially vertigo. She dare not, sometimes, for a day or two, walk across the room; her body seems to have been almost drained of its blood; and what remains, judging from what is lost in epistaxis, is very watery and attenuated.

Her great fear is that she shall become entirely dropsical, as her lower limbs are anasarcous and the arms œdematous. She is hysterical and nervous, almost to insanity.

I need not detain the reader by the daily and weekly details; suffice it to say, that a year elapsed before the disease was cured. A variety of palliative and adjuvant remedies were employed; but the great benefit was derived from iron, ergot, and camphor.

The form of pill, most frequently exhibited, I annex.

℞. Ferri Sulph. vel ammoniat. gr. ij. Camphoræ gr. iss. Cons. Ros. q. s. ft. pilulæ. Take one pill twice or three times a day, or

℞. Ferri Sulph. ℈i. Secalis Cornut. (in pulvere) ℈ii. Syr. Simp. qs, ft. pilulæ xii. Take one, or two pills, twice or three times daily.

It must be borne in mind, that the ergot is a remedy of variable power, although, in the cases fit for its use, it more frequently fails from not being fresh, and from having been long in a powdered state and exposed to the light, in a white bottle, than from a want of beneficial activity in the genuine drug.

The menorrhagic and leucorrhœal form of the malady is rare in early life. It generally occurs in women who have borne children, who have worked hard, and who have lived irre-

gularly, and on scanty and poor food. I have seen several cases of this form of the disease in the wards at Guy's; and it is worthy of observation, that iron succeeds almost invariably in their cure. Perhaps this may prove that they are chlorotic maladies. Were they merely cases of loss of blood and simple anœmia, nutritive diet and a restraint of the hemorrhage would cure them; but I am convinced they are more than this. The indications of chlorosis are really present, and the remedies for chlorosis, especially iron, will be required.

CHLOROSIS COMPLICATED WITH VICARIOUS DISCHARGES OF BLOOD, AND DISORDER OF THE STOMACH AND BOWELS.

Case 7.

REPORTED BY DR. JOSEPH RIDGE.

Aug. 9, 1836. Eliza ———, aged 16, a delicate, chlorotic girl, with pale cheeks and exsanguine prolabia: has always lived in London, and has enjoyed tolerably good health.

She has been engaged for the last four years in a sedentary occupation (waistcoat-making); and has rarely quitted the house, sometimes not for weeks together. The catamenia appeared first a year ago, continuing for three days, but were of light colour: they observed the natural period for five or six months; but on each successive recurrence were more scanty and serous, with lumbar and pelvic pains, and great lassitude. For the last twelve weeks, the function has been entirely suspended; and she has suffered, for some time, from dyspepsia, constipation of the bowels, and intense headaches. Nine weeks ago, she had a severe attack of hæmatemesis, which was preceded and attended by considerable pain over the stomach, and sickness after eating. It continued for four days; and, according to her own account, she must have vomited altogether several pints of blood. There has been occasional epistaxis since; and once or twice, a slighter return of hemorrhage from the stomach. She at present complains of flatulency; pain in the left side; of dyspnœa; disturbed action of the heart upon exertion; and pain in the occiput. The tongue is pale, moist, and flabby; pulse quick, silky, and irritable.

Sumat Pil. Colocynth. c̄ Calomel. gr. x. bis in hebdomadâ, horâ somni.

Mist. c̄ Ferri Sulphat. ʒi. ter quotidie.

Liq. Ammon. pur. ʒiss. Lactis tepid. Oct. i. pro Injectione, quotidie utend.—Meat diet, and a pint of porter daily.

Aug. 20. Is relieved from many of the symptoms: slight epistaxis yesterday: bowels well open.—Pergat.

24. Complains of fulness and pain of the stomach and head; her aspect is less anæmiated.

27. Considers herself much improved: appetite good: pulse stronger: complains only of headache: she was ordered to take air and exercise, in the square.

30. Makes no complaint. Some colour is returning to her cheeks; and though the catamenia have not yet again appeared, her general health is so rapidly improving, that she is allowed to become an out-patient.

Sept. 8. Has menstruated fully and without pain, and is rapidly recovering her health.

Case 8.

REPORTED BY DR. JOSEPH RIDGE.

Eliza ———, aged 19; a girl with light hair; of pale, waxy, and chlorotic aspect; and under the middle stature: admitted as a patient of Dr. Ashwell, Jan. 7, 1836.

She was born in London; has been occupied as a domestic servant; and till within the last twelve months has enjoyed good health. Menstruation commenced at the age of 16; and was perfectly natural till the commencement of her illness; at which time, the function was suddenly suppressed, the suspension still continuing. Her general health has been gradually giving way, and there has been progressive emaciation.

Vicarious discharge first occurred during the last week; and on three successive days she vomited about half a pint of dark-coloured and clotted blood. Her present symptoms are, pain in the head, accompanied, on assuming the erect posture, by violent throbbing, giddiness, swimming of the sight and singing in the ears. There is palpitation of the heart, increased on exertion; inability to lie on the left side; globus hystericus; dyspnœa with slight cough, but without expectoration; constant pain of the right side; loss of appetite; occasional tumefaction of the abdomen; constipation of the bowels;

and, at intervals, abdominal pain and tenderness. The tongue is clean, but pale and relaxed: pulse 90, compressible, yet jerking.

Sumat Pil. Colocynth. c̄ Calomel. gr. x. ter in septimanâ.
Mist. cum Ferri Iodido more solito præparat, coch. ii. majora ter quotidie.
Utatur Inject. cum Liq. Ammon. pur. et Lacte quotidie.
Diet, Beef-tea, and Arrow-root.

Jan. 12. Complains of pains in the sternum, in the region of the heart, and of throbbing pains in the head: sleeplessness. Skin cool.

Pergat.
App. Cucurbitulæ sine ferro nuchæ.

18. Feels better, though the head is still painful and dizzy.

To be electrified.

23. Severe pain in the left side, probably hysterical: head is very painful, and throbs violently: bowels open: tongue clean.

Omitte Mist. c̄ Ferro. Sumat Decoct. Aloës C. ℥iss. quoque primo mane.

28. Suffers still from dyspnœa, and neuralgic pains in the side: headache: abdomen tumid: bowels open.—Pergat.

Feb. 4. There has been considerable improvement: she has been freer from pain, and is active about the ward; bowels are well relieved.

6. Continues to improve: is much less subject to dyspnœa and palpitation: the pains in the head and side are relieved. There has been no appearance of the menstrual secretion.

9. Has a return of the former symptoms, though not in so aggravated a form. Bowels open.

Mist. Ferri c. ℥i. ter die.—Pergat.

15. The pain in the side is increased; otherwise she continues the same.

Emplast. Opii part. dol.

22. She now complains of a load at the stomach, after taking food; and for the last day or two she has vomited about an hour after dinner. Tongue clean: pulse feeble.

27. Since the last report, she has been better until yesterday afternoon, when, after dinner, she retched violently, and brought up a small quantity of dark-coloured blood, after which the dyspnœa and pain in the chest returned. Pulse, 80, soft, but somewhat sharper.

March 2. The oppression at the chest returned again last evening;

and this morning she was seized with another attack of hæmatemesis, and vomited half a pint of dark-coloured blood. Bowels open: pulse 96, and feeble.

Cont. Medicament.

At her own request, she was made an out-patient: and under a similar course of treatment, in country air, the vicarious hemorrhage was subdued; she returned again to the iodide of iron, and after six weeks the catamenia appeared. I have seen this patient several times since; and, by purgatives, iron, and exercise, the bowels, and the uterine functions, are preserved in a healthy active condition.

Case 9.

REPORTED BY MR. HENRY OLDHAM.

Eliza H———, aged 24, a woman of moderate stature, dark hair, fair complexion, and spare habit, was admitted July 4, 1835, under Dr. Ashwell. She has been married nine months, without pregnancy, and is employed in general household work. She began to menstruate at 15 years of age, since which time she has had occasional attacks of amenorrhœa. These never extended over many periods; but the discharge was usually restored by taking aloes, with new-laid eggs. She has been in delicate health for four or five years; principally complaining of a bad cough with expectoration, occasionally accompanied by pains about the epigastric region. For this she has been frequently blistered and leeched. For the last half year, at every monthly period, she has vomited a quantity of dark-coloured grumous blood, and the catamenia have proportionally diminished in their amount. These attacks of hæmetemesis once or twice supervened on coughing; but usually they were the result of vomiting. She has latterly abstained from intercourse, as it produced intense pain in the vagina and hypogastric regions.

She looks pale and wan: complains of considerable headache and lumbar uneasiness: she is weak, and unable to perform her usual duties. There has been profuse leucorrhœal discharge for seven or eight months, pain in micturition, and a tenesmic effort to evacuate the contents of the bladder. The skin is moist; but has lost its resiliency, so that, when pinched between the fingers, it is slow in regaining its natural position. Tongue flabby, indented at the edges, and rather foul. Bowels naturally costive. The mammæ are very tender, and there is occasional nausea. On examination, the uterus was found of its na-

tural size, and the os and cervix of their normal form and dimensions: they were, however, tender to the touch. Abdomen tumid.

Col. c̄ Cal. gr. xv. statim; et repet. alt. noctibus.—Sumat Inf. Rosæ c̄ Mag. Sulph. ℥i. bis quotidie.

July 8. The general uneasiness was relieved by the free action of the purgatives. The headache has been intense, and increased when in the recumbent posture. She sleeps heavily; aud being continually disturbed by frightful dreams, she rises unrefreshed. She complains of a fixed sharp pain, on pressure, beneath the margin of the lower ribs on the right side. Leucorrhœal discharge profuse: pulse 100. The pain in the left mamma is severe; the left nympha is elongated, and a superficial ulcer is seen on its inner surface. Heart pulsates forcibly.

Ferri Iodidi gr. xvi. Tinct. Calumb. ℥i. Aq. distillat. ℥vij. Cochl. ij. magna ter die.

Pil. Rhei c. gr. x. p. r. n.

Liq. Ammon. ℥i. Lactis Oct. i. fiat Injectio, omni nocte utenda.

Hirudines vi. mammæ sinist. applicand.

10. She feels better. The headache and pains in the mamma have decreased. Bowels open: pulse 90.

Rep. Medicamenta.

13. There is heavy dull pain in the head; aggravated on lying down, and preventing its free movements. The pain in the loins occurs in paroxysms; and is so severe as to occasion sudden and spasmodic starts, like those produced by an electric shock. Pulse 86, soft and regular. The leucorrhœal discharge is lessened: the os is still tender. The ulceration on the nympha is healed. Bowels open: countenance and general surface more healthy.

15. The white discharge has been examined, and is found to be mucus. This is the period for the return of the catamenia, and the usual time for the re-appearance of the hæmatemesis. She has expectorated some gelatinous mucus, but no blood. Bowels open. Pulse quiet: lumbar pain diminished.

Repetantur Medicament.

20. The paroxysms of lumbar pain have entirly ceased, and she looks much more healthy. The catamenia have not appeared, and there has been no premonitory symptom of the hæmatemesis. Headache entirely relieved. Skin moist: bowels open.

Omittant Inject. et Mist.—Capiat Ferri Carb. ℥i. ter die.

Electric sparks to be passed through the loins.

24. The electricity has been four times repeated; and was to-day immediately succeeded by considerable pain, both in the loins and thighs. The leucorrhœal discharge greatly diminished. She feels much improved. Secretions natural: appetite good.

25. From her sensations, she expected the re-establishment of the catamenia: in other respects the same as yesterday.

Rep. Medicamenta, et Scintillæ Electr.

26. The catamenia appeared early this morning, accompanied by great pain in the loins and thighs.

Balneum tepidum hâc nocte.—Pergat.

The discharge continued to flow until the evening of the 28th. With its cessation she experienced considerable relief, and quickly began to amend. The electricity was continued on alternate days, with the daily exhibition of the carbonate of iron. On the 11th of August she complained of severe pain at the scrob. cordis, sore throat, and headache, the effects of an imprudent exposure to cold. These were relieved by antiphlogistic measures, and soon disappeared. Under a continuation of the tonic plan of treatment, her strength was renovated. The surface lost its pallor, and the circulation was well and vigorously carried on.

Aug. 24. The catamenia have again appeared, accompanied by lumbar pain, and sympathetic irritation of the mammæ.

On *Sept.* 2, she left the hospital, free from serious malady; and so greatly improved as to leave no doubt of her ultimate recovery.

OBSERVATIONS.

It will not be necessary to offer many remarks on the preceding group of cases. Hæmatemesis occurs more frequently than is supposed; and in connection with so much pain, fulness, and congestion in several organs, as might appear to justify active treatment. I have seen bleeding, purging, and lead, lavishly employed; but with decidedly bad effect. In all the four cases narrated, there was anæmia, quick irritable pulse, and excitement, precisely the symptoms of chlorosis, and such as may, without difficulty, be distinguished from similar symptoms dependent on acute inflammatory disease. The transient neuralgic character of the chlorotic pains, notwithstanding their severity, the amenorrhœa, countenance, and pulse, must lead to a correct diagnosis, and to modified and local treatment. The

great indication is, either, to establish or to restore the catamenial function; and to attempt the attainment of this point, even by the empirical use of emmenagogues, bad as the practice may be, is less injurious than a full pursuance of the antiphlogistic plan. Blood-letting can seldom be required. On one occasion, I visited a chlorotic patient who had been bled from the arm for the relief of thoracic fulness and difficult respiration: she was partially and temporarily relieved. It was thought adviseable to repeat the bleeding; and nothing could be more conspicuous than its bad effects. Her prostration of strength was extreme; the breathing was more laborious; and an anasarcous state of the body was universally apparent. Nor is it less important to reiterate the caution against excessive purging, especially where mercurial or drastic medicines are employed. The first object, doubtless, is to procure, by proper aperients, healthy and regular evacuations; but the anæmia of the patient must be increased by their undue exhibition—a practice so common, that some individuals doubt whether more harm than benefit has not accrued from their use. Let this be as it may, it is quite true, that the evil results of such a plan are not confined to the stomach and bowels themselves; the irritation and flatulent distension of the intestines leading to aggravation of the chlorosis, and to nervousness and distressing sinking, very difficult to be borne: and yet, with such an increase of disorder, I have known mercury and aloes persevered in for weeks. So strong is the prejudice in favour of a "good, active purgation."

Electricity, the mustard hip-bath, the ammoniacal injection, leeches to the vulva, moderate cupping to the loins, the various emmenagogues, and occasionally a very active purgative, are the remedies peculiarly appropriate to this complication.

Case 10.

CHLOROSIS COMPLICATED WITH CEREBRAL AFFECTION.

Mary ———, aged 19, admitted as an out-patient under Dr. Ashwell, Nov. 10, 1833. She began to menstruate at 13 years of age; and from that period was never quite well, frequently complaining of lumbar

pain, headache, indigestion, &c. These symptoms were disregarded for three or four years, and then they became too acute to remain unnoticed. She is now considerably emaciated, suffers intensely from pain in the head, is frequently unconscious, and her intellect is greatly impaired. Her breathing is laborious, with frequent palpitations of the heart, and pain in the cardiac region. If she lie down suddenly in bed, and without two extra pillows, her breathing is so interfered with, that she is afraid of suffocation. Her digestion is bad, her appetite capricious and depraved, caraway-seeds and mint being favourite articles of diet. Aperients are constantly given, and never without the removal of scybalæ. Pulse 130, quick, irritable, and feeble; pain in the side very acute: has not menstruated at all for the last three months, and not properly for the last year. Her tongue is marked by the teeth, and the lining membrane of the mouth is unhealthy. Her aspect is blue and leaden, and the prolabia almost bloodless. Her finger-nails are cracked, and her extremities are of the chlorotic hue. Urine scanty, and high-coloured.

Ordered, Cordial aperients; Leeches behind the ears; the Æther-wash to the head; and a Pill three times daily, composed of one grain each of Quinine, Camphor, and Hop; with nutritious Animal Diet and mild Ale.

Dec. 6. Somewhat better. The catamenia have not appeared.—

Pergat.

24. Less headache; acute lumbar pain; spasms of the lower part of the abdomen.

Applicentur Hirud. x. labiis pudend.—Hot mustard baths.

Jan. 6, 1834. Has menstruated for nearly four days, plentifully, and without pain; is, in all respects, improved.

Pergat.

20. Headache nearly gone; acute pain in the side, and difficulty of respiration less; still emaciated, and appetite impaired; bowels much constipated.

Sumat Cal. c̄ Colocynth. gr. x. alternis noctibus.

31. Bowels well cleared, and more regular; improved in appearance.

Feb. 28. Calls to say she is quite well.

CASE 11.

Jan. 23, 1836. Miss ———, aged 34; of delicate and leuco-phlegmatic appearance; menstruating irregularly and scantily, but especially for the last year; devoted to reading, and occasionally oppressed by anxiety, but never called upon for any laborious exertion. Bowels confined: pulse quick and feeble: appetite never very good. On the whole, up to twenty-five or perhaps thirty years of age, she was tolerably healthy, and sometimes florid. The complaint for which she now seeks advice is headache, which has existed more or less severely for six or seven years. It was unnoticed at first, and was accompanied by a jaundiced appearance of skin, and by retching; but the vomiting never removed, and scarcely palliated the pain in the head. There was not much done medically for the first few years; but her health became gradually more impaired; and about twenty-four months since the pain assumed an intensity and constancy never previously belonging to it: every symptom since this period has been grievously aggravated; and the disease now absorbs her whole attention. In October, 1835, new symptoms arose—pain deeply seated in the orbit, tension of the tympanum with soreness and painful hearing; throbbing and beating of the head, and, in a few days, almost entire deafness, lasting till December; since which time the deafness has only recurred during menstruation (which is almost amenorrhœal), alternating with a peculiar sensation of syncope, tension, and noise in the ear. Remedies have been tried, of a mercurial, depletive, and antiphlogistic kind. Pulse 110, quick and irritable.

Good diet, principally animal food and ale, without wine or spirit, were enjoined.

Iodide of Iron, and Colocynth as an aperient, but without Mercury, were exhibited; and the head was shaved, and the Æther-wash applied.

Feb. 20. Considerably improved in all respects. To use the mustard hip-bath before the catamenial period, and continue the same remedies.

March 20. Has menstruated for three days, and without pain. Her cerebral symptoms less; still very far from well.

April 30. Is certainly greatly better. Her intense headaches re-

turn at very distant intervals. She is gaining flesh; and is able partially to resume her occupation of teaching. Bowels regular; urine natural; pulse 90, but feeble, and easily compressed. Still continues the iron, and the mustard-bath, before the period. Is ordered to take much out-of-door exercise.

I have not since seen this patient; but during the present month, September, I have heard, from a relative who lives in the same town, that there has been no relapse. The catamenial function is well performed; and the headache and the cerebral affections have entirely disappeared.

Case 12.

REPORTED BY MR. BLACKBURN.

Emily ———, aged 17, a tall thin girl, of florid complexion, and of intelligent appearance, was admitted under Dr. Ashwell's care, Feb. 5, 1836. She has always been weakly; and for the last four or five years has been subject to chest affection, from which she has been free since the existence of her present malady. Two years ago she had phrenitis, and has since been in imperfect health, being often seized with aggravated fits of hysteria, so that she falls and remains insensible and motionless for hours together, She is now deaf, and has once had otorrhœa; but its presence was attributable to an accidental injury of the meatus externus. She has intense headache, chiefly affecting the occiput. The cephalalgia was unusually severe in Dec. 1835; and soon afterwards her right foot and hand were frequently in agitation. A month subsequently she lost all control over them; and since this time there has been aggravation of the pain. Ten days ago she was delirious, and remained so for a few hours. Menstruation has been only once regular and natural. Her present symptoms are—dulness, almost imbecility of intellect; constant and rather acute occipital pain; frequent but not very violent agitation of the right side, with occasional spasms of the left; little or no affection of the face; no difficulty of articulation. Bowels open by purgative medicine: skin soft, and moist.

Pulv. Scam. c̄ Cal. gr. xv statim. Ferri Subcarb. ʒi. quartâ quâque horâ.

To take half-a-pint of porter daily, and use the flesh-brush.

This treatment was pursued for a fortnight with advantage; and the

daily reports exhibit progressive amendment. The agitation is decreased, and the pain in the head diminished.

Zinci Sulph. gr. ij. ter die.—Balneum pluviale omni aurorâ.

Feb. 22. The agitation is much less; and she has recovered considerable power of the left hand, but not so much of the leg. Bowels open; tongue clean.

25. The agitation has somewhat increased, and she complains of pain in the affected arm and leg.

Augeatur dosis Zinci Sulph. ad gr. iv. ter die.

She continued to improve until March 11; when the nurse reported that she had had a fit in the night, in which she appeared to have lost the power over her limbs, and the legs were somewhat contracted: the hands were placed over the occiput, where she appeared to suffer pain. She is now rather confused; pupils dilated, though obedient to light. There is some involuntary movement principally confined to the left side. Bowels well opened yesterday; pulse small, and soft.

Radatur Caput. Lotio frigida constanter applicand. Zinci Sulph. gr. iv. ter die.

March 16. Had another fit this morning, but much less severe than before. Pulse quick; pain in the head not increased.

22. Has had no return of the fits, and appears much improved. The involuntary twitchings are comparatively slight. She is more collected, and can articulate clearly. Bowels open; pulse quiet; still deaf; her strength is so increased, that this morning she was able to walk twelve or fourteen yards.

Inf. Rosæ. c̄ Quin. Sulph. gr. ij. t. d.—Pil. Rhei C. gr. x. p. r. n.

She remained in the hospital till April 21, when she was presented quite well. During this time she gradually regained her strength, losing all symptoms of chorea. The general health was confirmed; her appetite returned; the catamenia appeared, though scantily; and her countenance assumed its natural aspect.

Her intellect is still somewhat impaired; but the head is free from the occipital pain, and there is no symptom of structural change.

The cases narrated, illustrative of this complication, require little comment. They attest the aggravated severity of the cerebral affection; and present indications so similar to those resulting from structural change, as fully to demonstrate the difficulty of correct diagnosis. Although it is very rare for

organic affection of the cerebrum to accompany chlorosis, it must not be forgotten, if the malady continue, that a complication entirely functional at the commencement, may lead to change of structure; and that whilst the greater number of accompanying symptoms are merely functional, there may exist, in some one organ or viscus, organic disease. Local cupping, not general blood-letting; a blister to the nape of the neck; moderate and cordial aperients; change of air; and cheerful occupation and amusement of the mind in society, or active out-of-door pursuits, are means the most likely to restore or to establish the catamenial function.

CASES OF CHLOROSIS COMPLICATED WITH FUNCTIONAL OR STRUCTURAL DISEASE OF THE THORACIC VISCERA, ESPECIALLY OF THE LUNGS.

Case 13.

REPORTED BY THE CLINICAL CLERK.

Mary ———, aged 21, an unmarried woman, spare made, and of pale and emaciated appearance, was admitted into Mary's Ward, under Dr. Ashwell's care, Dec. 3, 1835.

She has always been delicate, and liable to inflammatory attacks: she began to menstruate at sixteen years of age, but the function has always been irregularly performed. Sometimes a suspension of five months has occurred: at others, the discharge has been suddenly checked; and rarely has she had a full and healthy flow.

On the 8th of November last the catamenia appeared, which terminated an amenorrhœa of five months' duration: yesterday there was another attempt, which lasted for eight or nine hours, then ceased: and the discharge, although pale and serous, has this morning returned. She has for some time been subject to leucorrhœa.

About two years and a half ago she had a severe attack of thoracic inflammation, and was greatly weakened by its treatment: there is now much debility; the face is flushed, and the surface pale and waxy: dyspnœa and pain at the epigastrium. She has had cough and mucous expectoration for several years, from which she is still suffering. Sometimes she coughs up three or four ounces of a fluid slightly muco-

purulent, and occasionally half a pint in the four and twenty hours. The heart beats violently, and is excited on the least exertion: her appetite is impaired; and the pain at the epigastrium, occurring after food, is relieved by vomiting a quantity of watery fluid, with a remarkably sour taste: urine limpid, and secreted in large quantity; pulse 72, rather full: bowels constipated.

Colocynth. c̄ Cal. gr. x. statim. Infus. Rosæ c̄ Magnes. Sulph. bis die.

December 8. Feels better. The cough is less troublesome: pain diminished: appetite improved: still headache and wakefulness.

Hydr. c̄ Cretâ gr. v. c̄ Pulv. Tragacanth. Comp. gr. v. omni nocte. Mist. Oleosa c̄ Mannâ; et Vin. Ipecac. m xv. bis die.

11. Is greatly improved in her feelings and general aspect. Pulse 86, regular. Yesterday she ate meat without the usual pain at the scrob. cordis. Leucorrhœa still continues.

Rep. Medicamenta.

17. There is an attack of pneumonia, cough, and dyspnœa; severe crepitation at lower part of left lung, involving a very small portion; expectoration not altered in character or quantity; skin hot.

Cucurbitulæ Cruentæ ad ʒx. infra mammam sinistram: posteà Emp. Lyttæ.

Colocynth. c̄ Calomel. gr. xv. statim. ℞ Vin. Ant. Tart. m xv. Liq. Ammoniæ Acet. ʒiv. Tinct. Hyoscyam. m xx. Mist. Camph. ʒvi. ft. Haust. ter die sumend.

27. The inflammatory attack readily yielded to the remedies, and she appears to have gained strength: complains of nausea.

Mist. Ferri Comp. ʒi. bis die.

The tonic treatment was occasionally varied, but persevered in; and she daily improved. The pulse beat regularly, usually 80 in the minute. Bowels open. She can eat, and easily digest meat.

January 5. The catamenia appeared, accompanied with less pain; and of a more natural colour than formerly, lasting five days.

The cough and expectoration daily diminished. She was able to walk about, and left the hospital Jan. 19, with a slight bronchitis remaining, but the general health almost entirely restored.

Case 14.

Feb. 28, 1835. Miss ———, aged 26, began to menstruate at 14 years of age; and till within the last year and a half has enjoyed good health. Since this period she has lived near town, and the catamenia have been gradually diminishing in quantity. At first, the discharge continued for half a day, or a day less than when in full health. Now, the flow does not last more than a day, but is unaccompanied by uneasiness: there is no acute pain of the head, but she is frequently giddy; her digestion has been interfered with, and her appetite greatly impaired: thirst is sometimes distressing: the thoracic symptoms are, however, the most pressing; as her breathing is short, hurried, and laborious, and she has frequent hacking cough.

Still, these thoracic symptoms precisely resemble those sometimes produced by chlorosis complicated with hysteria. The cough is excited by any mental emotion; and loss of voice and sudden difficulty of respiration are often induced by the same cause. Palpitation is of frequent occurrence. There is no expectoration of phlegm, but frequent water-brash: the bowels are constipated: the pulse is quick and irritable. The aspect icterode: the tongue and lining membrane of the mouth are unhealthy; and there is the dark mark under the eye: the conjunctiva preserves nearly its healthy and natural colour: the nails are chipped and dark; and the fingers partake of the general jaundiced hue.

Ferri Iodidi gr. xvi. Tinct. Calumbæ ʒi. Aq. distill. ʒvii. ft. Mist. Sumat coch. magn. i. ter die.

Pil. Rhei Co. ʒij. Ol Cassiæ gtt. xij. m̄ ft. Pil. xxiv. Sumat ii. vel iii. alt. noctibus.

April 4. Has had the catamenia for two days and a half, and is more relieved by the flow than formerly. Palpitation less; pain in side diminishing: more strength: appetite not much improved.

Bacon with chocolate for breakfast; roast beef and mutton, with mild ale, for dinner; weak chocolate for tea; and a sandwich, with a little mild ale, for supper: these were the directions given Feb. 28: the result was as described above. She was ordered to continue the same diet.

May 16. Bowels irregular and confined: less cough: pulse 100,

fuller and softer; the pallor continues, and the debility is considerable. Catamenia appeared at the usual time, but continued only for a day.

Cont. Remedia.
To use for a week, previously to the period, the strong mustard hip-bath, every night.
Sumat Decoct. Aloes C. ℥ii. cum Pulv. Jalape gr. x. alternis matutinis.

June 20. Has menstruated fully, and without pain: the hysteria has nearly ceased. Circumstances of a painful nature, relative to an engagement which she had formed, were unexpectedly removed; and cheerfulness and vivacity have succeeded to gloom and anxiety.

Pergat.

It is unnecessary to say more about this patient, than that by a sedulous prosecution of the remedial measures, she entirely recovered, is now married, and the mother of two children.

Case 15.

CHLOROSIS COMPLICATED WITH PHTHISIS.

Miss ———, aged 15, a young lady of dark complexion, intelligent countenance, and of great delicacy, was attacked, at the age of 13, with hooping-cough. The paroxysms were frequent and violent; and, notwithstanding treatment and change of air, the disease lasted some months, with little or no diminution of severity. At first it was unaccompanied by expectoration; but shortly a mucous phlegm was thrown up. Her strength decreased; her appetite was capricious; and it was feared that the lungs would become phthisically diseased. She was sedulously watched; and her exercise, diet, and clothing were carefully regulated. Before she attained her 14th year, the cough had lost its peculiar character, and appeared to pass into chronic bronchitis. The generally emaciated state of the body, with the pallor and concomitant symptoms, clearly indicated chlorosis; yet it was hoped that the establishment of puberty and menstruation might lead to a restoration of health. For a few months, remedies to improve the constitutional power, and induce the desired change, were ineffectually employed. Her countenance became more chlorotic; the lips and mucous lining of the mouth more pallid and unhealthy; and the anterior wall

of the thorax seemed daily to approximate more closely towards the spine; there was not the slightest enlargement of the mammæ; nor did it appear at all probable that puberty or menstruation would be developed. The expectoration changed its character, and, instead of mucus, large quantities of dark-coloured pus were coughed up, so offensively fetid as to require immediate removal from the apartment. Every indication was decidedly phthisical: there was hectic flush and quick pulse in the evening, and exhausting perspiration in the morning: the appetite was, at times, morbidly great; while at other times scarcely any thing was eaten. Her strength rapidly failed. Pectoriloquy, gurgling cough, and cavernous respiration, were severally detected by the stethoscope; and before she reached her fifteenth year, she sank from phthisis complicated with chlorosis.

Case 16.

April 1, 1838. Miss B., æt. 19, of light complexion, delicate from infancy, and frequently suffering from amenorrhœa, was exposed, in September 1837, to a cold, damp atmosphere. The result has been entire suppression of menstruation, with its accompanying inconveniences, and severe cough. The aspect is entirely chlorotic, the skin being dirty-white, the conjunctivæ, gums, and lining membrane of the mouth are bloodless, nor is there one indication of the malady absent.

The expectoration, which is occasionally purulent, the pain in the left side, the morning perspiration, and the emaciation, point very clearly to phthisis. There is also considerable leucorrhœa. The progress of this case has been instructive: at first the amenorrhœa did not attract attention, because it was unattended by important indisposition. But, in December 1837, some more serious symptoms showed themselves: the chlorosis was fully established, cough, and quick pulse, with the icterode hue and gradual emaciation, alarmed her medical attendants, who had carefully watched and treated her. Since this period, it is unnecessary to detail the course of the disease; but it is sufficient to add, that menstruation was never restored, that tubercular cavities formed in the substance of the lung, and destroyed the patient in October 1838.

Many similar examples I could furnish, scarcely a year passing without my seeing several such melancholy cases. I forbear offering many remarks on the treatment of this most fatal

complication, having already insisted upon the absolute necessity of continued vigilance and care. I may, however, suggest the importance of early and entire change of air. A sea voyage, a milder climate, frequent travelling, and cheerful society, offer the best prospect of creating or renewing vigour of system, and establishing a healthy condition of the pulmonary organs.

I have purposely avoided the discussion of the stethoscopic signs of phthisis, not to dissuade the practitioner from the careful examination of the chest, but because I am fearful of his attaching too much importance to the absence of physical evidence of this disease. His apprehensions should be excited by the peculiar condition of the patients already described—a condition favourable to the deposition of tubercular matter in the lungs. To obviate the probable consequences of this condition will require the utmost forethought. If, however, he wait till these consequences have ensued, or, in other words, till auscultation affords proof that organic change is actually commencing, all his care and all his skill will be unavailing.

CHAPTER II.

OF AMENORRHŒA.

DEFINITION.—*The Absence of Menstruation.*

There are two principal forms of the disease.

First, The Amenorrhœa of Retention, where, at the appropriate age, menstruation is absent, including *three* varieties.

a. Amenorrhœa, dependent on congenital deficiency, malformation or structural disease of the genital organs.

b. Amenorrhœa, where, independently of deficiency or malformation, there is either a slow and partial development, or an entire absence of puberty.

c. Amenorrhœa, after puberty is fully established.

Second, The Amenorrhœa of Suppression, where menstruation having existed perhaps for a length of time, has, independently of pregnancy or lactation, become suppressed, including *two* varieties.

a. Recent and acute suppression.

b. Chronic suppression.

a. Amenorrhœa, dependent on Congenital Deficiency, Malformation or structural Disease of the Organs of Generation.

History, Pathology, and Diagnosis.—These are happily rare cases, and the cure, under the most favourable circumstances, is hazardous and difficult, and sometimes impossible. It is now almost universally acknowledged, that menstruation, as well as conception, is dependent on the existence and influence of the ovaries. If, therefore, the absence of the function is connected with the absence of these organs, the disease is irremediable. Nor will the chances of a cure be augmented, if both ovaries have become structurally diseased. So long as one of them, or even a portion of one of them, is sound, menstrua-

tion may be performed; but if there be entire disorganization, complete amenorrhœa will be the result. These opinions receive additional confirmation, from the development of the ovaries not occurring till the age of puberty, from the diminution of their size, when the catamenial and reproductive functions cease; and from the gradual lessening of the menstrual discharge, as disease of the ovaries progresses. In Mr. Pott's celebrated case of the removal of both ovaries, menstruation entirely disappeared, although, previously to the extirpation, puberty existed, and the function had been well performed. An instance of complete schirrus of the ovaries, attended by a similar result, and occurring in my own practice, will be narrated hereafter.

The history of these cases is not encouraging: the health often suffers, and there is a proneness, either to irritability and excitement, or torpor and depression. I have now under my occasional care, a lady of thirty-two years of age, who has never menstruated, I believe from congenital deficiency of the ovaries, and she is never quite well. Of late, her health has been more seriously deranged; she loses flesh, has frequent febrile attacks, a troublesome cough, pain in the side, and embarrassed respiration. The probable termination of this unhappy condition is phthisis. In this instance, sexual development and feeling are entirely absent; nor has there ever been leucorrhœal discharge.

I cannot, without more qualification than my friend has appended, entirely concur in the following statement of Dr. Churchill, in his very able and interesting work on the Diseases of Females. "These patients," Dr. Churchill says, "have the body generally well developed and healthy, the circulation active and regular, the organic functions (save one) fully performed. But the breasts are not prominent, the genital characteristics and sexual propensities are not developed, the voice is deeper than usual, a slight beard appears on the upper lip, and there is a mixture of masculine with feminine peculiarities." The latter part of this statement is fully borne out, but the author has probably underrated the general amount of ill-health in cases where the ovaries are wanting. Other organic deficiencies and malformations produce amenorrhœa.

There may be no uterus, or if it exist it may be anormal in form, its cervix may be wanting, or together with the os, impervious. The vagina may be entirely absent, or so imperfectly formed, that it shall not be connected with the uterus; its sides may be adherent, solid growths may obstruct the continuity of its canal, or there may be an imperforate hymen.

I have seen several cases where the uterus could not be ascertained to exist; although the presence of the ovaries was tolerably certain. One or two such will be given. Here the health was not seriously, and in one case, not at all deranged. The uterus did not exist, and, of course, healthy menstruation was absent. No mischief, therefore, arose from the retention of the catamenial discharge; but it is far different where there is a uterus, where menstruation is performed, but where the escape of the secretion is entirely prevented by malformation.

Distension of the uterus, pressure on neighbouring organs, impeding their functions, derangement of the general health, and periodical efforts at menstruation, occurring probably at monthly intervals, clearly distinguish these examples of retained menstruation from cases of absent ovaries or uterus; and show the absolute necessity for a most careful examination.

Prognosis.—This must be unfavourable where there is a congenital deficiency or extensive organic disease of the ovaries or uterus. In neither condition can menstruation be established. It is not, therefore, probable that the usual amount of health shall be enjoyed, although it is quite true, excepting in structural disease, if such individuals escape phthisis, to which, in early life, and in our climate they are especially prone, they may, and often do, become vigorous and robust.

Where the other malformations are present, the prognosis must mainly rest on the nature and extent of the obstacles, on the practicability of a surgical or any other operation for their relief, on the degree of danger, not only in the operation itself, but to surrounding parts, and especially on the risk, certainly the most serious of all, of peritoneal inflammation. The more distant serous membranes also, the pleura and pericardium may become inflamed, as a secondary result of any operation on the genital organs.

If a safe passage cannot be made, then a fatal or very dangerous result may ensue from immense accumulation in the uterine cavity, inducing peritonitis. Nor, is it perhaps impossible that this organ shall be ruptured, and permit the escape of its contents. Such a case I have never seen; nor from the acknowledged distensibility of the uterus, can I think it probable. It is far more likely, the accumulation being gradual, that the parietes of the organ will be slowly and sufficiently developed, to prevent rupture. The derangement of health, and the mechanical inconveniences consequent on retention, will almost certainly induce amenorrhœa.

Treatment.—Where the ovaries or uterus are wanting, the case is irremediable. Where an imperforate hymen, an occluded os, or a thin septum across the vagina, prevents the exit of the menstrual secretion, the knife, the bougie, or the finger, may accomplish a cure. If the cervix uteri exist, without a pervious canal, a trocar of small size, or a firm bougie, may form an artificial one; but in the other and more serious malformations, where there is extensive obliteration of the vagina, or merely a rudiment of this passage, or where there is only a space between the urethra and rectum (vide cases), and where, although the uterus be present, it cannot be reached, except by exploratory incisions, in such complicated examples, the safety of the patient will generally depend on the discreet non-interference of the surgeon, while her cure must be looked for, from his courage and enterprise. It is almost needless to remark that few men, qualified for such operations, are unwise enough to undertake them, without the sanction and assistance of able professional colleagues and friends.

A case of M. Amussat, appended to this chapter, will illustrate these remarks. Among the means at the disposal of the surgeon, may be mentioned the formation by the knife, trocar, and bougie or sponge tents, of artificial canals and passages, the removal by incision, by caustic and ligatures of tumours and attached growths; and where the uterus suffers from augmenting accumulation, so as to endanger its rupture, all other means failing, it may be punctured from the rectum. It is impossible, in a systematic work, to lay down precise

rules for the treatment of such maladies. Each case must be considered alone; its peculiarities must be coolly reflected on; and, while temerity is to be condemned, enterprise, short of recklessness, where the danger of non-interference is so great, is deserving of praise.

In the simpler obstructions, the operations, either by the trocar, knife, or bougie, are not difficult; but it must not be forgotten, that such patients, with whatever facility the impediment may have been removed, and a mere incision is often sufficient, are really exposed to the danger of peritoneal inflammation. When the operation has been successful, which it almost invariably is, in the simpler and more frequent cases, a quantity of dark, uncoagulated secretion escapes, and continues to drain away for several days. At length the uterus is emptied, and under favourable circumstances menstruation will occur naturally at the next, or at a more deferred period.

Peritoneal or local inflammation, especially the former, must be carefully guarded against; and where it is necessary to keep the canal open, by bougies, sponge tent or dossils of lint, the earliest approach of abdominal or local tenderness must be promptly treated. After such a warning, every expedient for preserving the aperture must be discontinued. If the inflammatory symptoms are slight, local depletion, by cupping on the loins or hypogastric region, leeches, numerously applied, purgatives and narcotic fomentations or poultices may suffice; but if the pulse be full and hard, the skin hot, and the abdomen really tender, in a word, if there be peritoneal inflammation, nothing short of large and repeated general bleedings will avail as preliminary to these milder measures.

b. Amenorrhœa where there is either a slow and partial development or an entire absence of puberty.

Causes.—As the age varies considerably, at which puberty is established, not only in different countries, but in individuals residing in the same country, the absence of menstruation, at the usual epoch, must not, at once, be regarded as a disease. Its delayed appearance may be caused by idiosyncrasy or delicacy of constitution, by a tardy development of the body generally, often dependent on impure air, confinement in factories,

or close apartments, and many other similar causes. Or the health may be so feeble, owing to rapid growth and excessive leucorrhœa, that the development of the genital system is necessarily delayed. We ought not, therefore, hastily to conclude that puberty will not be established, and still less that its non-appearance depends on congenital deficiency or disease; every measure for the invigoration of the general health should be fairly and long employed before the case is regarded as hopeless. It is very remarkable that Lisfranc should have met with fourteen cases of the total absence of menstruation, where he was unable to attribute such absence to physical obstacle or chronic affection of the uterus.

Pathology.—The pathology of this form of amenorrhœa is the same as that of chlorosis; let the amenorrhœa persist, and the anœmia and pallor of the latter disease, so indicative of attenuated and impoverished blood, will soon appear. I refer the reader, therefore, to the chapter on chlorosis, where he will find the subject fully explained.

Progress and termination.—The majority of these cases terminate favourably, especially if violent emmenagogue medicines, for they ought not to be called remedies, are abstained from; months and years, however, may elapse before the cure is completed, during which the confidence of the patient and her friends in medical skill will be severely tried.

Exceptional instances, where there never is puberty and menstruation, are rare; but they do occur. Nor are they always dependent on congenital deficiency and malformation—the powers of the constitution are sometimes entirely inadequate to the task of developing the genital system.

Treatment.—When the ovaries are wanting, or destroyed by disease, there is no remedy. Where only feebleness and delicacy of constitution delays puberty, judicious treatment will avail. I forbear to enter at large on the management, as I have done it so fully in the chapter on chlorosis.

c. Amenorrhœa, after puberty is fully established.

This form may occur, either in

a. The too plethoric, although otherwise healthy and robust, or in

b. The delicate, irritable, and hysterical.

a. Amenorrhœa in the former class is invariably characterized by symptoms of congestion or active plethora, and is not so common as the second form of the malady. It is not often seen in crowded cities or large manufacturing towns, but in the country, where girls live more naturally, and are much in the air. It is generally cureable, although often neglected.

Symptoms.—Headache, tension, and weight about the brain, with a sensation of fulness and throbbing in the centre of the cranium, or about the cerebellum, a florid countenance, torpor, lassitude, pain in the back and loins, a full, and generally a slow pulse, though occasionally in irritable females it is rapid; irregular circulation, evidenced by the feet and hands being, the one hot, and the other cold, or both at short intervals remarkably hot and remarkably cold. The skin sometimes harsh and dry, and at others clammy. It is not to be supposed, if the amenorrhœa continue, that these symptoms will pass away, after the attempt at menstruation is over. They may do so for the first few periods, but subsequently they will continue, during the catamenial intervals, recurring with aggravation as the menstrual epoch again approaches. If the malady has been long neglected, or inefficiently treated, a cure will not soon be accomplished. The constitution sympathises so entirely, that months and perhaps years may elapse, before it resumes its healthy and natural actions. Some women, however, naturally menstruate only at distant intervals; and I had lately under my care a patient, who for two or three years menstruated only every four months; and another, who never had the discharge oftener than every six months. Instances are also recorded, where healthy menstruation occurred only once every year, or once every two years. In my patients, symptoms of plethora were always present, and the menstruation was painful. Cupping, leeches, and purgatives, with narcotics, were the means employed.

Causes.—Exclusive of organic deficiency or malformation, the most simple cause is uterine congestion; so active as to prevent the secretion of the menstrual fluid, and this is most frequently induced by exposure to cold, which suddenly arrests

the secretory process. Less intelligible causes have been adduced, such as torpor of the secreting uterine arteries and spasm of their extremities. In some of these examples, the patients are indolent and sedentary, indulging in a luxurious and stimulating diet, soft beds, warm apartments, and too much sleep.

Diagnosis.—There is little difficulty, where the disease is seen early, in forming a decided opinion of its precise character. At first, there is neither anœmia nor pallor, and when subsequently present, the history of the affection will prevent error.

From amenorrhœa, where the menstrual fluid is retained either in the uterus or vagina, it may be easily distinguished. In the former there will be an absence of plethoric symptoms, the particular feature of this species; while the increasing size of the uterus, and the mechanical pressure on neighbouring organs, so characteristic of retained catamenia, will decide the diagnosis. I need scarcely add, that, if there be the slightest suspicion of pregnancy, examination per vaginam becomes an imperative duty.

Course of the Disease and Prognosis.—It is rare for plethoric amenorrhœa to resist all attempts at cure. In such an event the plethora most commonly disappears, and the patient becomes chlorotic, or suffering no longer from repletion, months and years, or even the whole of the menstrual period of life may pass over, without the establishment of the function. Occasionally chorea, hysteria, epilepsy, hepatic and intestinal disease may occur, nor is it impossible that the patient may be destroyed by a general cachexy, tabes mesenterica, or phthisis. The prognosis must therefore depend on the character of the complication.

Treatment.—This must primarily have especial reference to the plethora, abstraction of blood and purging being essential remedies. It will rarely be necessary to bleed generally, except there be marked congestion of some of the more important organs. Such, for instance, as the brain, the lungs, the liver, &c.; in which case twelve, fifteen, or twenty ounces of blood may be promptly abstracted. Local depletion, by cupping on the loins or over the sacrum, leeches to the labia, inner surface of the thigh, the groins and os uteri, are ordinarily sufficient, and give decided

relief where there is severe pain of the head, back, or loins. Active purgatives, and local depletion, so rarely advantageous in chlorosis, are beneficial. It is requisite to improve and increase the secretions of the whole canal, and to unload and stimulate the lower intestines. Jalap, rhubarb, colocynth and scammony with calomel at night, and a dose of salts and senna or infusion of rhubarb in the morning, answer the purpose exceedingly well. (Vide formulæ.) These must be repeated with a frequency and a modification of the dose, suited to the urgency of the case. Auxiliary remedies must not be forgotten, such as the mustard hip-bath, at 96° or 98°, every other or every night, the common practice being to enjoin its use for ten or twelve minutes, instead of half an hour, one or even two hours, taking care to preserve the high temperature during the whole time. The bath used in this way is a powerful remedy. Nor is it less valuable sometimes, when the feet only are immersed, every night and morning, especially where the circulation is torpid and irregular, and the patient suffers much from cold, flushing of the face, or headache. Exercise and a spare diet must also be enjoined. Such patients should not be allowed to ride in easy carriages, which favours congestion; nor is riding on horseback so good as a regular walk of several miles per diem, the length of the walk and the degree of exertion being, of course, proportioned to the strength. I have several times witnessed greater uterine fulness, and impaired circulation of the lower limbs, as the result of horse exercise. I invariably, therefore, strongly recommend walking in this form of amenorrhœa.

Animal food, malt liquor, or wine, must be sparingly taken. If they are freely used, under the impression that they will excite menstruation, further repletion must ensue. I have several times advantageously practised small revulsive bleedings; four, five, or six ounces of blood may be drawn from the arm, at the period when menstrual effort exists; leeches to the mammæ have not, in my observation, done good. The treatment, therefore, so long as plethora continues, includes occasional venesection, revulsive and small bleedings, cupping and leeching, active purging, constant and careful

regulation of the bowels, a spare and sometimes a vegetable diet, prolonged mustard baths, and walking exercise.

The condition of the system may have been altered and improved, the treatment may have removed the plethora, but there is yet no menstruation. It may be asked, whether it be necessary in such circumstances at once to employ emmenagogues? I think not. Some months may elapse before the uterus shall perform its proper function, but eventually, menstruation will most probably occur. If, however, the health fails, and instead of a ruddy and robust, there is a pale and wan countenance, and a gradually pervading debility, the amenorrhœa will merge into chlorosis: to prevent such a termination emmenagogues may be used. But I must also observe, that if, when the plethora is removed, menstruation does not quickly occur, the continuance of the malady must not always be attributed to debility. Such an opinion leads to the premature and injurious exhibition of tonics and stimulants; for although weakness is a cause of amenorrhœa it is by no means its only condition, since often, where debility has been entirely removed menstruation has failed to be established. I shall at the end of the chapter discuss the various considerations, justifying and demanding the exhibition of emmenagogues.

b. Amenorrhœa, after puberty is fully established, in delicate, irritable and hysterical females.—What is there to distinguish this form from amenorrhœa in females who, having been plethoric, are so no longer? I have observed that the former are generally more healthy; and after the removal of the plethora they more quickly and easily menstruate; girls, on the contrary, naturally delicate, if menstruation does not quickly succeed puberty, very often suffer for months and years from non-performance of the secretion.

In both forms of amenorrhœa now under consideration, viz., where it exists after plethora is removed, and in delicate females, it is understood that puberty is established: but even with this advantage, presuming that the amenorrhœa persists, chlorotic symptoms will ensue, and if emmenagogues have not been suc-

cessfully used or menstruation has not naturally occurred, the proper definition of the malady is amenorrhœa complicated with chlorosis; and to avoid perplexing repetitions, I refer the reader to the preceding chapter of the work.

Second, The Amenorrhœa of suppression, where menstruation having existed, perhaps for a length of time, has, independently of pregnancy or lactation, become suppressed.

There are *two* varieties.

a. *Recent and acute suppression.*

b. *Chronic suppression.*

Causes and symptoms.—If it be somewhat difficult, in every instance, correctly to discriminate the complicated forms of amenorrhœa and chlorosis, it is easy, from the history and symptoms, accurately to distinguish a case of suppression. Menstruation is healthily suspended only during pregnancy and lactation; but it must not be forgotten that the natural termination of the function may, from idiosyncrasy of constitution, arrive some years before the usual age.

The *two* great causes of acute suppression are mental emotion and the application of cold. Sexual intercourse during menstruation, fever, either idiopathic or secondary, hemorrhage or venesection, severe trying or drastic and emetic medicines, iced water and confectioners' ices are auxiliary and less frequent causes. The effect of cold in suddenly arresting menstruation is well known; whether it be applied by a stream of cold and damp air, by wet feet, by drinking cold water, when hot, or by undried linen. Nor are we less familiar with the injurious effects on the sexual functions of joyous and painful emotions. Not only is the secretion of the catamenia prevented, when about to occur, but when menstruation is present it is often immediately checked by sudden terror. The same observation is true also of the secretion of the milk. Happily the effect of several of these causes is diminished by the frequency of their occurrence. The bathing women go into the sea, during menstruation, with perfect impunity; and the habitual exposure to the casualties of life necessarily diminishes their injurious impression. Dr. Gooch relates that a patient of his consulted him, long after the entry of the Cossacks into Paris, for an amenorrhœa, which was solely

produced by the alarm she then suffered. And Dr. Churchill states that almost all the women who are sent up to the Richmond Penitentiary, near Dublin, after having been tried at the Recorder's Court, labour under suppression, in consequence of the mental agitation and distress they have undergone.

If it be asked how these causes operate, I reply, very differently. The effects being modified not only by the intensity of the cause, but in great measure also by the constitution of the individual.

In a young or middle-aged woman, fleshy, of plethoric habit and ruddy complexion, the immediate suppression of the secretion will be followed by congestion, if not by inflammation. While in a woman delicate, thin, and spare, of sallow aspect, and highly nervous, the more probable consequences are irritation, attended by spasm and paroxysms of severe pain, with intervals of ease. In the former case there will be sensations of weight and pain in the head and loins, tension and acute and constant pain in the region of the uterus aggravated on pressure, short breathing, a hot skin, and a full, hard, and rapid pulse; occasionally there will be violent hysteria, and I have several times observed delirium. It is scarcely necessary to add that suppression, accompanied by such symptoms, is far more immediately dangerous than any of the other derangements of menstruation. Gooch, indeed, mentions an instance of suppression, where, after death, the uterus was found in a state of gangrene, the result of intense inflammation.

About this form of suppression, then, there can be no doubt; neither the symptoms nor the treatment are at all masked or perplexing; it is much more than irritation, it is decided inflammation of the uterus. Apoplexy is said, by Capuron, to result from sudden suppression: this I have never met with, although I have seen seizures of a mixed kind, where there was something beyond hysteria, an approach to epilepsy. Partial and transient paralysis of the lower extremities has occurred once or twice in my practice; and Churchill mentions that the patient may also be attacked by local inflammation, either of the brain, lungs, or intestinal canal.

The *pathology* of acute suppression is clear. There is in the marked cases, inflammation of the substance and of the invest-

ing and lining membranes of the uterus. Of course, a similar remark is true of other viscera, when they are inflamed during menstrual suppression.

Diagnosis.—In plethoric and robust women the diagnosis of the malady cannot be difficult. The history of the case removes every doubt as to the fact of suppression; and the character of the symptoms is too decided to allow any other conviction than that the disease is inflammatory.

Treatment.—It is essential to the safety of the patient, where inflammation of the uterus, or its appendages, really exists, that general bleeding should be at once resorted to. If cordials be given and fomentations applied, with the view of restoring the suspended secretion, valuable time will be lost, and inflammation may, during the interval, advance rapidly to an incurable or gangrenous stage. Even were menstruation to be re-established, the inflammation would scarcely be diminished; the disease, therefore, being so dangerous, must be treated as though it were quite independent of the suppression. Of course, the amount of blood to be abstracted must depend on the intensity of the inflammation, and the strength of the patient. It may be necessary to bleed largely, and, more than once: fifteen, twenty, or twenty-five ounces, may be abstracted, and colocynth, with calomel, must be immediately exhibited, to secure a full purgative effect; a powerful enema should succeed the pills. If, in a few hours after the first venesection, the pain and the pulse are unimproved, more blood should be drawn; if, however, there is less abdominal tenderness, and a diminution in the number and hardness of the pulse, twenty or thirty leeches applied to the uterine region, may suffice, without the second bleeding. A saline mixture with digitalis, a pill containing antimonial powder, opium, and calomel, (vide formulæ) may be administered every two or three hours. After these measures, auxiliary ones may be employed. A general or partial warm bath, at 96°, is a powerful sudorific, particularly where the patient, being placed in an easy position, remains in the bath thirty or forty minutes; fomentations of equal parts of gin and strong decoction of poppies, and an injection into the rectum of half an ounce of barley-water and thirty minims of liquor opii sedativ. often produce great relief. Modifications

of this treatment will be suggested by the differing degrees of severity, and consequently of danger, appertaining to each case. Nor must it be forgotten, that the suppression, although the cause of the malady, is unimportant, when compared with active inflammation in an organ highly vascular, and covered externally by a serous membrane.

But suppression of menstruation occurs also, and perhaps more frequently, in delicate and spare women, who are highly nervous and irritable. Inflammation may, even in them, be the product of suppression; but in the majority of such attacks, the pain and other symptoms are not inflammatory, although it is sometimes difficult to distinguish the aggravated neuralgia and spasm of the different abdominal organs, and of the uterus and its appendages, from real inflammation. Still it may be done, although it requires some of that unwritten experience, that incommunicable tact, which a man can alone acquire by long and accurate personal observation. The pain is rarely fixed, attacking first one and then another viscus, changing its locality without the use of remedies; and, if treatment be employed, such as local bleeding, a mustard poultice, or a stimulant and narcotic embrocation, it is remarkable how quickly the pain is transferred from the uterus to the head, from the head to the chest or heart, and again from these parts to the intestinal canal. The patient is prone, during these attacks of irritation, to fits of hysteria, and syncope.

Treatment.—General bleeding is inadmissible, nor are leeches usually advantageous: metastasis of the pain, but rarely its permanent removal, may be produced by their application. Active purgatives are necessary, for the bowels are commonly loaded, and hard scybalous fœces long retained in the large bowels, excite and maintain painful irritation. A general warm bath at 96°; a warm mustard hip-bath or mustard pediluvia, may be advantageously employed. The following antispasmodic draught may be given every three or four hours, till the symptoms begin to subside.

℞ Liq. Ammon. Acet ʒii vel. iii.
Tinct. Castorei vel. Assafœtidæ ʒss. ad ʒj.
Pulv. Ipecac. C. gr. iv. vel. v.
Mist. Camph. ʒvii. M. ft. Haust.

In addition, if the pain be severe, a pill, containing two or three grains of camphor, and two grains of antimonial powder may be exhibited.

Injections into the rectum sometimes produce an almost magical effect. Laudanum, assafœtida, and poppy syrup are employed for this purpose, (vide formulæ) and as it is necessary that they be retained for some time after their introduction, a piece of sponge or a napkin, should be kept firmly and closely applied to the extremity of the bowel. When narcotic enemata are injected, the quantity should not exceed two or three ounces, as more will unnecessarily dilute the anodyne ingredient, and by distending the gut, induce expulsive action. The pain and spasm, in this form of acute suppression, are thus relieved, and menstruation does oftener recur during the immediate period, in this, than in the inflammatory species; but in neither can it be invariably expected. If, however, the treatment has fortunately re-established the discharge, every precaution ought to be employed to prevent the exposure of so susceptible a patient to any of those causes which might induce a relapse. It need scarcely be remarked, that an attack, either of inflammation or irritable suppression, is often the prelude to more permanent menstrual obstruction; and if month after month elapses, without the performance of the secretion, chronic suppression, to be next treated of, will be the result.

After a primary attack of suppression, unless any symptoms of uterine congestion remain, treatment in the interval is rarely necessary, but immediately previous to the subsequent periods, every measure should be adopted calculated to ensure natural menstruation. The bowels should be kept free by mild laxatives: cold should be guarded against; the feet and the surface of the body generally should be kept warm; mental emotion and undue physical effort should be avoided, and the mustard hip and foot-baths, should be used on alternate nights. If menstruation return at the expiration of the first or second month after the suppression, anxiety is at an end. If not, and leucorrhœa with other symptoms shall appear, then more active treatment must be adopted in the intervals, so as to prevent, if possible, chronic suppression.

b. *Chronic suppression.*

Causes, Symptoms, and Pathology.—Chronic suppression may result from an acute attack, or it may gradually supervene, as the effect of some permanent irregularity in the secreting power of the uterus; dependent on increasing constitutional delicacy, or decided ill health. It may be the issue of organic disease of the ovaries or uterus; or the natural consequence of a premature cessation of the menses. It is not to be expected that causes so various should operate uniformly, nor do they.

In some women the mischief having commenced in an attack of acute suppression, healthy menstruation cannot be restored, at least without difficulty and delay. A painful effort is made at monthly intervals; but the discharge does not appear, and the amenorrhœa becomes chronic and inveterate. In others the function is, for some time, scantily, irregularly and painfully performed; but the excreted fluid is pale and serous, and, after a few more months, the periodical molimen having died away, chronic menstrual suppression is permanently established. There are however, cases of healthy menstruation, where the quantity of the secretion is so extremely small, that, but for the regularity of its return, it might be believed that chronic suppression was approaching. Several examples of this kind are known to me. Nor does such a state greatly interfere either with the health or conception. In one patient, whom I have attended in numerous confinements, the menstrual periods have never lasted more than a day; yet she has been exempted from anything beyond the indisposition common to women. In another, married late in life, where the menstruation was equally scanty, I tried, at her suggestion, to increase the secretion; but the various remedies employed, such as iron, sarsaparilla, quinine mercury, and iodine, failed. Her marriage, however, has been prolific, and she has become the mother of four healthy children in three years. Since her last confinement the same sparing menstruation again returned, proving that, in her case at least, the peculiarity was not morbid, as neither remedies, pregnancy, nor parturition, effected any change. Dewees says of these instances, if there be no ill-health, that infertility after marriage may often be attributed to an anticipation of final menstrual decline. He mentions three instances where the function

ceased altogether before the twenty fifth, and two where it terminated finally before the thirtieth year. In all, the health was perfect. I have now a patient, in her thirty-sixth year, who having suffered from dysmenorrhœa up to thirty one, ceased then to menstruate. Her health has been gradually improving ever since.

It is not difficult to recognize the *symptoms* attendant on chronic suppression. Among the head symptoms there is occasional vertigo, diffused and obstinate headaches, muscæ volitantes and dilated pupil, with involuntary twitchings of the eyelids and muscles of the face. The surface is irregularly cold, hot, or dry, while there is a manifest susceptibility to the impression of cold, causing shuddering. The prevailing state of bowels is constipation, from weakened muscular power; and the accumulations in the bowels greatly interfere with nutrition, as the flabbiness of the textures and the occasionally rapid emaciation sufficiently prove. The urine is abundant and limpid. The thoracic symptoms are dyspnœa, palpitation, pains in the chest, &c. If the suppression continue, these symptoms may persist, or if the constitution be equal to the task, it may, aided by remedies, re-establish natural menstruation. The health may, however, seriously fail; and phthisis, organic disease of the liver or other abdominal viscera, or secondary dropsy, may destroy life.

The *pathology* of chronic suppression, where it does not depend on organic disease, may be referred to torpor or congestion in the earlier stages, and to constitutional debility in its more advanced periods. In the protracted and inveterate forms of suppression, the ovaries and uterus, in common with other organs, suffer from defective nutrition, the blood having become too impoverished to excite the organic nerves, and to supply the requisite secretion to the several tissues of the body.

Treatment.—It is important to determine, not only the exact treatment to be adopted, but the precise period when it shall be commenced. It is not right, for instance, to regard every menstrual suspension as justifying medical interference. Many of the slighter irregularities arising from cold, mental emotion, and other causes, quickly subside, without medicine or professional

management. If, therefore, the health does not suffer from the absence of the discharge, the case may be safely left to nature, excepting where there is excessive leucorrhœa, which so rapidly impairs the strength, that it is proper at once to attempt the removal of the suppression.

Where the amenorrhœa originates from a congested state of the uterine vessels, the cure under the treatment recommended, will in general be found more rapidly effected than in the other variety. Among the irritable and delicate women, where the discharge has become gradually lessened, a series of functional disorders, the result of sympathetic derangements have to be removed, which generally requires a prolonged treatment.

It has been already remarked, that debility is not the sole cause of absent menstruation, and it is peculiarly necessary, in protracted suppression, before entering upon the use of stimulant remedies, clearly to ascertain whether there is not congestion or latent inflammation of the uterus and its appendages: if there be, such medicines must do harm. An examination of the uterus, externally and by the vagina, will procure the requisite information. Dewees strongly insists, that emmenagogues frequently fail from this cause, and adduces cases to show how important it is, where debility has been only presumed to exist, but where there really is inflammation, that depletion should precede the use of this class of medicines. During the first two or three months of suppression, when the constitution sympathizes but little, active treatment is unnecessary. And the same remark is applicable, so long as the question of pregnancy is undecided.

After the full exposition already given of the treatment of the different forms of amenorrhœa, it is scarcely necessary to say more, than that in chronic suppression, the treatment will principally be determined by the predominance of plethora or debility. In the former, depletion; in the latter, tonics and stimulants will be required.

The following remarks on *complicated amenorrhœa*, I extract from my summary of obstetric cases treated at Guy's Hospital.

The six cases of complicated amenorrhœa were very interest-

ing. In one, it was associated with chorea. This patient, after protracted treatment, was eventually cured by sulphate of zinc, and the injection of liq. ammoniæ into the vagina In another, amenorrhœa was complicated with epilepsy. The medicine prescribed was ferri sulph. gr. i. pulv. digitalis gr. i. pulv. myrrhæ gr. ij. mucil. Acaciæ q. s. fiat pilula ter die sumenda. It is worthy of remark, that these pills were persevered in for three weeks, without any injurious consequences from the use of the digitalis; a circumstance attributable, probably, to its combination with the iron. At this period, the catamenia appeared; and there has been no return of the fits. In a third case, hemiplegia was attendant on the amenorrhœa. This complication was tedious, and difficult to manage. At first, the mist. ferri c. was prescribed; afterwards, the sulphate of zinc; and an iodine liniment was well rubbed over the spine, night and morning. Menstruation was eventually established, and the patient regained the entire use of the side. In the fourth case, there was tænia with the amenorrhœa. In addition to the other remedies, the ol. terebinth. was curatively employed. In the fifth patient there was vicarious discharge from the mamma, in conjunction with amenorrhœa: the mist. ferri c. was ordered, as well as the daily employment of the ammoniacal injection. The last patient had, in addition to the amenorrhœa, a peculiar nervous affection of one of her lower extremities, which completely subsided when the catamenial function was, by appropriate remedies, healthily established.

It is right also to mention, that amenorrhœa may occasionally be traced to hemorrhage during and after labour. In one well marked case, occurring in my own practice, the patient had three times suffered amenorrhœa from this cause, lactation not having been attempted. Twice pregnancy recurred, independently of the return of menstruation.

In the chapter on chlorosis, ascites is enumerated as one of the uncommon results of that malady; the same observation is true of amenorrhœa. In both, an improvement in the quality of the blood, and above all, the re-appearance of menstruation, are essential to the cure.

Dr. Churchill alludes to several cases of amenorrhœa, where a

distinct bruit de soufflet existed without other evidence of heart disease, and which disappeared spontaneously upon the re-appearance of the catamemia.

Emmenagogues are remedies supposed to exert a specific power over the uterus in exciting menstruation; or in other words, regarding the menstrual fluid as a secretion, emmenagogues are the medicines by which we endeavour to give to the secreting organ the state or condition on which the function depends. It is requisite, therefore, that these stimulating agents should be appropriate, and it would be indeed fortunate, if to aid the elimination of the catamenial secretion, we possessed a medicine, as uniformly and beneficially stimulant as mercury is in torpid states of the biliary function. Whether any medicines certainly possess this influence, is a question to which my experience does not afford an affirmative reply. Still, although there are no drugs positively emmenagogue in their action, the properties of some in stimulating the uterus, render them important auxiliaries in the treatment of various states of diseased menstruation.

In chlorosis, and in amenorrhœa, where there is deficiency or malformation, the local emmenagogues often do harm, never any good. In cases too of absent menstruation, where there is either a slow and partial development or an entire absence of puberty, emmenagogues, if used at all, are improperly employed: and in chronic amenorrhœa complicated with dropsy or phthisis, and in amenorrhœa with general and uterine plethora, still further congestion must result from their administration.

But where the uterus is inactive or entirely quiescent, puberty having been established, and neither plethora nor debility exist, emmenagogues may be advantageously tried: nor are they less valuable, where amenorrhœa continues, in delicate, irritable, and hysterical women, after tonics and cordials have failed to produce the menstrual discharge. In chronic suppression, emmenagogues are clearly indicated. Plethora, loaded bowels and fever forbid their use; spare diet, purging, local depletion, and occasionally a small bleeding from the arm, prepare the way for their beneficial exhibition.

Emmenagogues are of *two* kinds:

First, Local or immediate Emmenagogues directly applied to the uterus or the neighbouring organs.

Second, Constitutional Emmenagogues, producing their effect through the medium of the system.

Of the first class, *Electricity* is the only agent justly entitled to the appellation; the only power by which the uterus can be directly stimulated. It is well known, that local pain is produced whenever a sufficiently strong electric shock is passed through a sensitive part. Thus, if electricity, by shock, be directly applied to the uterus, a highly stimulant effect will ensue. Nor is the organ less beneficially affected, in some instances, by the electric sparks, or by a continued current being passed through it; still it is an uncertain emmenagogue. In the ward at Guy's, and amongst the out-patients, it has of late been used with more than the usual good effects, Dr. Golding Bird having superintended its application. In some of the cases, where, after the condition of the alimentary canal had become healthy, the amenorrhœa continued, with slight pallor and weakness, electric shocks passed through the loins quickly induced menstruation. In others, its continued repetition three or four times a week led to a similar result; and instances were not wanting where a shock suddenly produced the flow. Electricity must, however, be cautiously employed. Where the patient really dreads its exhibition, it may depress the nervous system, and still further protract the malady. Nor must it be forgotten, that if syncope, sickness, or diarrhœa follow its use, it ought to be discontinued. Electricity moderately applied, frequently, rouses into activity the energy of torpid organs and parts, but when used in excess it may altogether destroy their excitability. I rarely trust to it alone, nor do I employ it in cases of general plethora or local congestion. If pregnancy be suspected to exist, however strenously denied by the patient, electricity ought not to be used; once I ordered it, quite ignorantly, where the amenorrhœa depended on concealed pregnancy; and abortion occurred within an hour.

Of Galvanism as an emmenagogue I have no experience, but it is mentioned favourably, although cursorily, by several authors.

The application of leeches to the os and cervix uteri, where

congestion exists, will frequently produce menstruation; but it is somewhat difficult so to employ them, and in young unmarried women it is almost impossible. Dr. Stroud strongly recommends the practice, and speaks favourably of its effects. A proper leech-glass must be used by a well-instructed nurse, a few days prior to the period, and repeated several times.

Stimulant Injections.—These were formerly much employed, and a variety of irritating ingredients entered into their composition; at present, as a vaginal enema, the Liq. Ammoniæ fort. in milk, is generally administered. I have often used it with success during the last twelve years, both in hospital and private practice (vide formulæ.) It rarely does good, if it is not attended and followed by a pungent sensation of heat, tingling, and some pain in the vagina. Its use should be commenced three days prior to the expected period; and the patient, after each injection, should apply a napkin to the vulva, so firmly as to cause the injected fluid to be retained for ten or fifteen minutes. It is not a safe remedy where there is uterine congestion. In two such cases dangerous inflammation of the cervix and upper part of the vagina followed its use. Where, however, uterine torpor is unaccompanied by congestion and acute irritation, the ammoniacal injection is often efficacious. Occasionally, like electricity, it produces menstruation at once, while, in some women, in common with the most approved remedies, it is without effect. The strong mustard hip-bath, used twice during the day, the patient remaining in it for nearly an hour each time, at a temperature of 96° or 98°, is an effectual auxiliary remedy.

Stimulating fluids have been, as emmenagogues, injected into the uterine cavity; and they may, perhaps, by some who have not used them, be yet recommended. Death, from peritoneal inflammation, has several times followed the practice; and in two instances, occurring under my own eye, fatal results had nearly ensued from most alarming attacks of this formidable malady. It has been supposed, but certainly without due consideration, that as cold water alone or with sulphate of zinc may with impunity be injected into the uterus after labour, so with equal impunity a similar injection may be thrown into the

interior of the uterus in amenorrhœa; but there is little or no analogy to support the reasoning. In the former instance it may be fairly presumed that the mucous membrane is healthy, and, uterine contraction being secured, restraint of the bleeding will be the consequence of the remedy; but, in menstrual suppression, there may be, and often is, congestion and irritation, and perhaps a diseased state of the tissue lining the uterine cavity—here, on the contrary, inflammation will probably ensue. Excepting as a means of arresting hemorrhage, I never now inject the uterine cavity.

Of the emmenagogue properties of *medicated bougies* I have no experience; when used, stimulation of the lining membrane of the cervix is intended to be produced, with the hope that a similar action will extend through the continuous membrane of the uterus. These, with the exception of the *mustard* and the *variously medicated hip-baths*, are all the local emmenagogues directly applied to the uterus. The mustard hip-bath, if well employed, seems at times to exercise an almost specific influence over the uterus. Nor is the exhibition of mustard by the stomach without a similar effect. I have often given eight, ten, and twelve grains of mustard, in camphor julep, three, four, and five times daily, prior to the menstrual period, with good effect, the regularity and the quantity of the secretion being beneficially affected by it. Dr. Rigby relates that some school girls, for sport, swallowed mustard spread thickly on their bread, and in all the elder girls it produced menstruation in a few hours, although the regular period for its appearance had not arrived.

It is right to allude to *sexual intercourse* as an emmenagogue, as marriage often, though by no means invariably, cures amenorrhœa.

Stimulating Injections into the Rectum are much relied on by some practitioners, as emmenagogues, and certainly I have used with advantage an enema—recommended by Dr. Schonlein—composed of ten grains of aloes, and one ounce of mucilage, twice or three times a day.

Leeches to the Vulva, above the pubis, and at the upper and inner part of the thighs, are occasionally beneficial. Nor are *stimulating embrocations*, *warm frictions*, and *the flesh-brush*

to the hypogastric and *lumbar regions*, to be entirely neglected. They must, however, only be relied on as adjuvant remedies.

Of the utility of *Pressure on the Iliac and Femoral arteries*, as a remedy for amenorrhœa, I have no knowledge. Not once have I seen it tried. Dr. Hunter, of Beverley, first successfully employed it about seventy years ago. It was subsequently practised in Edinburgh, and Dr. Home reports that in his hands, it succeeded once in six times. It is not a satisfactory or rational thing to induce congestion of the uterus, if it can be accomplished, as a remedy for amenorrhœa, since it is admitted that the disease in question is often attributable to this very condition. The plan has been long discontinued.

The *Second* class of emmenagogues is *The Constitutional, producing their effect through the medium of the system.*

Mercury is our most powerful deobstruent, and deserves to be mentioned first amongst the remedies of this kind. It is not to be used in slight cases, nor where there is extreme exhaustion, a predominant irritability, or a tendency to phthisical or strumous disease. But, in obstinate amenorrhœa, where other treatment has failed, where there is chronic inflammation or permanent congestion, and any evidence of incipient structural change, there is no remedy comparable to this. In medicine, however, as in matters of less moment, there is a fashion: and in obedience to its dictates, we too often pass from one extreme to its opposite. The extravagant employment of mercury at one time, and its undeserved neglect at another, the indiscriminate praise bestowed upon it by some, and its unjust abuse by others, abundantly verify this observation. As an alterative I have not used it successfully; but if salivation be produced and maintained, mercury often ensures decided and permanent benefit. The inconveniences of a mercurial course, protracted through three or four months, however modified and lessened, are quite enough to induce not only great caution in the selection of an appropriate case, but great watchfulness of its effects. If the pulse becomes more rapid and less strong; if constitutional irritation and weakness daily increase; if there be cough or diarrhœa, these not having previously existed, the mercury should be at once discontinued. No prudent practitioner will administer it after such warnings.

More frequently, in cases warranting its use, improved symptoms will follow moderate salivation. The tongue becomes clean, moist, and of healthy colour; digestion improves, and there is some return of healthy appetite; the complexion loses its dingy, icterode hue, and becomes more clear; and the entire state is greatly improved. I am not aware that the form of mercury to be administered is a matter of much consequence. The Plummer's or the common blue pill, calomel, the grey powder, or the inunction of the mercurial ointment, may any of them be selected. The mercurial effect should be carried so far, as to produce soreness of the gums and moderate salivation; and these should be kept up for twelve or sixteen weeks.

The frequent daily use of the chlorate of soda as a gargle, will diminish the inconveniences of the salivation, by removing the fœtor of the breath and cleansing the mouth, so as to prevent the unpleasant taste. Sarsaparilla is a valuable adjunct; it allays irritability and prevents emaciation.

Iron, in its various forms and in modified doses and combinations, is a most valuable emmenagogue. Its worth, in all diseases where the blood is impoverished and where there is general weakness, is well known. Its protracted administration, instead of injuring, improves the health; and the blood, instead of remaining a watery and attenuated fluid, acquires from iron more healthy and nutrient properties. In this way its emmenagogue power is realized. Nor must it be overlooked, that iron possesses this additional value; that, as the cure of the amenorrhœa, is mainly dependent on the improvement which has been effected in the general health, so it is more likely to be permanent, menstruation not having been reproduced by powerful and transient stimuli. These remarks are pertinent to its exhibition, whether in a form purely medicinal or chalybeate water. The various *chalybeate springs* contain different quantities of the carbonates and sulphates; and their waters are certainly most efficient when drunk on the spot. The regulations for exercise in the intervals of swallowing the water ought to be sedulously followed. Nor must it be forgotten, that plethora and constipation should be removed prior to any form of iron

being exhibited; and if, during its use, giddiness, headache, sickness, and a quick or full pulse should occur, the iron must be immediately discontinued.

Of the *Ergot of Rye*, or *Secale Cornutum*, as an emmenagogue, I cannot speak favourably; nor is it on principle easy to understand how it should produce such an effect. As a powerful stimulant of the muscular substance in the pregnant and puerperal conditions of the uterus, it is, if judiciously employed, invaluable; but the removal of uterine torpor, and the arrest of uterine hemorrhage, by the excitement of muscular action, are entirely different effects from the restoration of a secretion, often owing its suspension to plethora and extreme debility. Nevertheless, Dr. Locock, the brevity of whose papers, on the diseases of menstruation is their only fault, speaks favourably of the deobstruent properties of the rye. I cannot say that I have never succeded, when I have used it; but it is necessary to be cautious, not only in selecting the case, but likewise the precise time when it shall be administered. It is most to be relied on in a somewhat relaxed and debilitated patient, and ought to be given, not in the intervals of menstruation, but when determinate efforts are being made to establish the secretion. Occasionally, at these periods and in conjunction with strong mustard hip-baths, it has produced the menstrual discharge. I rarely now give it, but never when these efforts having been unsuccessful, subside. Irritation and abdominal spasm are almost sure to follow its continued use. In one or two instances I have witnessed alarming seizures of this kind, where it has been long employed. The powder (see formulæ), in doses of ten grains, two or three times daily, is probably more efficacious than the tincture, although the latter induces less severe uterine and intestinal spasm and pain.

Iodine is occasionally a good emmenagogue; but there is no remedy of this class which in my hands has so frequently failed. In patients predisposed to struma, or actually suffering from scrofulous enlargement of the glands, the iodine exerts an almost specific influence on nutrition, and by improving the blood, favours secretion. Dr. Coindet was perhaps scarcely correct in attributing to this drug such powerful and certain

emmenagogue properties. I have made numerous inquiries about its effects, and have not discovered that others have used it more successfully than myself. It may be given in doses of five, eight, twelve, or fifteen drops, or even more, of the tincture, twice or three times daily, in sugared water. Or the iodine, in substance, may be administered, combined with the hydriodate of potass. (vide formulæ.) Caution must be observed after plethoric amenorrhœa, lest a return of this state, accompanied by vertigo, cerebral fulness, or slight hæmoptysis, may succeed its use.

Strychnine was introduced by my friend Dr. James Bardsley, of Manchester, in cases of suppressed menstruation. In four instances of amenorrhœa, occurring in delicate females, I have unsuccessfully used it. In two out of the four, one fifth of a grain was taken four times a day; but vertigo, and spasmodic twitching of the muscles, with severe headache, compelled me to lay it aside. The late Dr. Cholmeley, of Guy's Hospital, employed the strychnine in several cases of amenorrhœa, in the wards, but without any success. He began with the sixth of a grain three times a day.

Of Madder, the root of the rubia tinctorum, as an emmenagogue, I have little personal experience. In the commencement of my professional studies, I witnessed its successful use; but I believe it is now very rarely employed. Madder tinges the bones and the urine of a red colour; it is supposed, therefore, that finding its way into the circulation, it directly influences the secretory function of the uterus. It is given in doses of ʒss. to ʒj. of the powdered root, two, three, or four times a day. Dr. Home says that out of nineteen cases of amenorrhœa he cured fourteen by madder. It does not quicken the pulse, or derange the stomachic functions, but appears to operate almost insensibly in producing the return of menstruation.

Rue, so much praised in former times for its emmenagogue properties, is now scarcely ever used; nor does the evidence in its favour prove more than that it may be a cordial antispasmodic of uncertain efficacy.

Savine, the juniperus sabina, is powerfully stimulant and emmenagogue; but its use is at present much restricted. Its deob-

struent power is attributed to a volatile oil, which is similar in its properties to turpentine. Popular opinion is decidedly in its favour, and it is the medicine most commonly employed to procure criminal abortion. Dr. Davis, in his elaborate work, mentions on the testimony of one of his pupils, who served his apprenticeship at Tonbridge, that in the neighbourhood of that town there was a remarkably fine savine tree, the decoction of the leaves of which was successfully used, not only to remove menstrual suspension, but also to induce abortion. Where there is a feeble and languid circulation, savine is a suitable stimulant: but its use is injurious where there is plethora and irritation. The powdered leaves, and the oil of savine, are the preparations employed; of the former from four to twelve grains, and of the oil from two to twenty drops may be taken two or three times daily.

Seneka root, and *Black Hellebore,* are deobstruents, but they do not merit more than a passing allusion.

Nitre, by stimulating the kidneys, is a decided emmenagogue. It seems to reach these latter organs, judging from its effects, without decomposition. I lately gave to a patient, whose mother placed great confidence in this salt, one scruple three or four times daily, in a wine glass full of water. It purged and produced bloody motions; but on the third day there was a copious flow of the catamenia after a suppression of seven months.

The Infusion and the Tincture of Digitalis, produce their uterine effect through the kidneys.

Aloes is doubtless the most efficient of the emmenagogue cathartics, acting on the uterus through the rectum. Even after menstruation has ceased, the disposition to the function often remains, but the discharge can rarely be produced by the natural efforts alone—here, if a drastic dose of aloes be given, the catamenia are frequently, in slight degree, restored. It may easily, therefore, be allowed, that a similar effect may occur from the continued exhibition of the medicine, during the epoch of menstrual life. Aloes cannot, however, be always administered. If there be an irritable uterus or a highly irritable stomach and alimentary canal, the drug cannot be borne—sickness, intestinal

tormina, and extreme irritation of the rectum and anus, forbid its use. Several formulæ will be given.

Gamboge, serpentary, wormwood, musk, myrrh, castor, valerian, and lavender, with several others, are regarded as emmenagogues, but the majority of these remedies can scarcely be viewed as more than stimulant antispasmodics, and as aiding the more direct and powerful medicines of this class.

CASES OF AMENORRHŒA DEPENDENT ON CONGENITAL DEFICIENCY, MALFORMATION OR DISEASE OF THE GENITAL ORGANS.

Case 17.

AMENORRHŒA GRADUALLY SUPERVENING ON DISEASED OVARIES.

October 10th, 1838, Miss G——, æt. 17, a patient of Mr. Bailey, of Limehouse, is fair and strumous in aspect, rather thin, always delicate, but not sickly. Puberty was established at fifteen, and menstruation quickly supervened. In February, 1838, nearly nine months before the present time, a tumour about the size of a goose's egg, hard, uneven on the surface, and only slightly tender to the touch, was discovered low down laterally in the right hypogastric region. Up to this period the catamenia were regular in their return, although the quantity was lessened, and the colour light. A few weeks afterwards, in March, a similar though smaller growth appeared on the left side, and several of the inguinal glands were enlarged and indurated. Now, there are two distinct tumours, that on the right extends from the iliac fossa to the umbilicus, while the left iliac fossa is entirely occupied by the other and smaller growth. They are of stony hardness, at times painful, independently of pressure; mechanically, they derange the action of the bowels and bladder, while fever and defective nutrition are rapidly destroying her strength. Appetite is impaired, and there is a frequent dull pain in the stomach, accompanied by acute pain and cramp in the backs of the thighs and legs. The sleep is much disturbed; pulse from 100 to 110, small and weak, and there are nightly

paroxysms of fever; there is neither cough, expectoration, nor morning perspiration.

Since June menstruation has progressively decreased, and it has been attended with severe pain. Six weeks ago, the second growth (both are believed to be ovarian) having attained a large size, and having probably completely destroyed the healthy structure of the organ, a painful effort alone, without any discharge, marked the menstrual period.

Eight weeks subsequently to my first visit in October, the amenorrhœa continued. Only palliative treatment was recommended, the extent of the disease forbidding active interference.

In February, 1839, she died, worn out by mechanical and febrile irritation, and by want of nutrition. For six months before death there was entire amenorrhœa and excessive leucorrhœal discharge.

A *post mortem* examination confirmed the opinion that the uterus was perfectly healthy, and that the ovaries were entirely scirrhous, so much so as to have obliterated every trace of their natural organization.

This case requires no comment. It confirms the doctrine that the ovaries are the efficient cause of menstruation.

Case 18.

AMENORRHŒA WITH CONGENITAL MALFORMATION OF VAGINA AND UTERUS.

Hannah ——— æt. 22, was admitted June 13th, 1832, into Dorcas Ward, Guy's Hospital. The following particulars are taken from the case-book and my own notes.

This patient has never menstruated, but there is no abdominal enlargement. Has suffered severely for many months from headache, pains and tightness in the chest and loins. She has been plethoric, but is not so now; pulse 90; moderately full; tongue white, skin hot, especially at night.

For these symptoms, subsequently attended by dyspepsia, she was bled and purged, and put on low diet; and on July 7th, she left the hospital cured of her indisposition, but without having menstruated. As it was thought that malformation existed, this patient was, at her own request, carefully examined, and the following is the report:—

Hannah ——— is well developed as to her general womanly struc-

ture, and has therefore probably perfect ovaries. But the external aperture of the vagina is closed by a firm membrane, which being pushed up two or three inches towards the sacrum, forms a shut-sac, without the slightest opening. Neither the finger nor a probe can detect an os or cervix uteri beyond this closed extremity; nor does the finger in the rectum when pressing forwards, nor pressure downwards from above the pubes, cause any firm body, like the uterus, to impinge upon the finger remaining in the vagina. It is quite certain that there is no large accumulation of menstrual fluid either in the womb or upper part of the vagina. These parts, if they exist at all, must be of small dimensions. No exploratory operation was recommended, as any attempt to lay open this shut-sac might expose the cavity of the peritoneum. If catamenial accumulation shall hereafter render an opening expedient, the containing parts will be so dilated as to be felt by the finger, then the knife may probably be used with a prospect of success. I have, however, already said that these operations are scarcely ever devoid of danger.

Here menstruation was not performed, because the secretory organ, the uterus, was wanting. I saw this patient again two years afterwards, when she had quite recovered her health, and wished to be married; but hesitated because she had not menstruated. I declined to give any advice.

Case 19.

AMENORRHŒA DEPENDENT ON ABSENT UTERUS AND VAGINA.

Dec. 20, 1836. I visited Mrs. —— æt. 27 (a patient of Mr. New, of Mile-end). This lady has been married two years, and is well developed about the pelvis and mammæ. Her general health is tolerably good, if a proneness to fever, susceptibility to cold, and hysteria be excepted. She has never menstruated, but in other respects she is sexually healthy. The genitals are singularly anormal. The mons is large, the labia are well formed, and the fourchette and perineum do not deviate from healthy conformation. There is, however, no vagina, and I think, no uterus. On passing the finger in the direction of the os externum, it may be carried about an inch onward between the urethra and rectum. The former canal is very capacious and distensible, for after overcoming the contraction at its entrance, the finger may traverse it till it enters the bladder, the rugæ of which viscus are

easily felt in its empty state. Examination by the rectum, the finger being retained in the urethra, detects no body like the uterus, the two fingers approaching very closely to each other; a fold of membrane only being interposed between them. Intercourse is imperfectly accomplished, and yet not without gratification: the urethra being the recipient canal. That there are ovaries is certain; but I feel confident there is neither uterus nor vagina.

Case 20.

AMENORRHŒA WITH CLOSURE OF THE VAGINA, CONSEQUENT ON PROTRACTED AND INSTRUMENTAL LABOUR.

In *August* 1837, Mr. Maccay, and a neighbouring surgeon, requested me to visit Mrs. B., residing in Whitechapel; she was twenty-one years of age, had been married ten months, and had been in labour nearly sixty hours, under the care of a midwife. As there were not more than three inches and a quarter of space between the sacrum and pubis, as the internal parts were hot, tumid and tender, and the abdomen tympanitic and extremely painful on the slightest pressure, I proposed perforation. I brought the head of the child through the pelvis with great difficulty, even after I had reduced it to the smallest dimensions. There resulted, as I feared, from the long continued pressure of the head on the soft parts, vaginal abscess and ulceration; and the subsequent cicatrization was accompanied by contraction. In July 1839, not having seen Mrs. B., since the delivery, she called at my house and told me that she had never menstruated since the labour, but she was much weakened by constant leucorrhœa. On examination, I had no difficulty in passing the finger into the vagina, for about two inches and a half, where it terminated in a pointed extremity. The closure is quite firm, and I cannot discover, either by the speculum or probe, the slightest aperture. In front, beyond this shut-sac, I cannot feel the uterus, but through the rectum, it is easily discovered, nor is it at all enlarged.

This patient is failing in health, is dyspeptic, emaciated, and, since the labour, has become entirely devoid of sexual feeling. But I cannot persuade her even to think of surgical aid. It is an interesting case as showing the increase of constitutional morbid effect beyond what exists in the examples of congenital deficiency, where menstruation was never performed; and such an instance may be regarded as the connecting link between the congenital cases, and those where the menstrual fluid

is secreted, but retained. The examples of congenital deficiency are the least dangerous; cases like the one now described are more hazardous: and instances of secreted, but retained catamenia are full of risk, if the fluid cannot be evacuated, and even then there is abundant cause for anxiety.

Case 21.

AMENORRHŒA DEPENDENT ON MALFORMATION OF THE VAGINA.

REPORTED BY MR. HENRY OLDHAM.

Elizabeth R——, aged 22, a well-developed girl, of short stature, florid complexion, and fair skin, was admitted into Guy's Hospital in February 1836, under Dr. Ashwell.

At the age of 15, she had some affection of the eyes: but with this exception, she enjoyed good health until ten months ago, when she first became troubled with headache, vertigo, and lassitude, a sense of fulness in the hypogastric region, with lumbar pain, capricious appetite, pain in the side, and irregularity of the bowels, for which she was received into the Hospital, under Dr. Cholmeley. At this time the catamenia had not appeared; and an examination was instituted, to ascertain if any mechanical obstacle existed. The parietes of the vagina, about two inches from the vulva, were found closely adherent; and fluid could be detected immediately above. Mr. Key divided the septum; and a large quantity of dark-coloured, viscid fluid, was evacuated. The opening was dilated by bougies; and she shortly left the Hospital, feeling well. There was but one scanty appearance of the catamenia after this period; but her health was not materially deranged until six weeks of the present time, a white mucous discharge having alone occurred. A recurrence of the above-mentioned symptoms induced her to apply to me for advice; and, on examination, it was found that the two divided surfaces of the vagina had again firmly united, but that the catamenial fluid was accumulated in small quantity only, which was proved by the absence of a fluctuating tumour above the cicatrix. Finding her general health somewhat impaired, and the morbid sympathies with the uterus, such as sickness, headache, &c., continually present, I prescribed laxative medicines, mild tonics, nutritious diet, and palliative remedies, to remove urgent symptoms. The symptoms became more severe, as the quantity of menstrual fluid increased; and

she was readmitted into the Hospital under Dr. Ashwell. At this time, she complained of giddiness, headache, and tinnitus aurium, lumbar pains, with a sensation of fulness and bearing-down, occasional dyspnœa, uncertain appetite, depression of spirits, and great irregularity of the bowels, sometimes being troubled with diarrhœa, followed by constipation. The uterus was not to be felt above the pubes; but a feeling of fulness, not of distinct fluctuation, was communicated to the finger, on examination. The same class of remedies was used, under which her general health improved; and in two months' time, the tumor above the united parietes was so distinctly bulging, as to warrant the evacuation of the retained catamenial fluid, which was less in quantity than on the previous occasion. In twelve hours after the operation, symptoms of peritonitis were present, which were met by active measures, such as bleeding, both general and local, purgatives, calomel, &c. They, however, continued unsubdued, and she died.

The body was conveyed to the mother's house, where an inspection was obtained.

On opening the thorax, marked traces of recent pleuritis were universally diffused. The lungs, in some portions, were found adherent to the opposed pleura costalis, by delicate bands of imperfectly-organized fibrin, which were readily broken down. In other parts, layers of plastic lymph were found loosely attached to the pulmonary pleura, and within the pleural sac: on both sides there were three or four ounces of serous fluid, with some flakes of lymph floating in it. The depending parts of both lungs were gorged with blood and serum, which ran out from the two surfaces of a divided portion. The upper lobes were crepitant, but their edges were too rounded. The heart and large arteries were healthy.

On opening the abdomen, layers of lymph were found on the surface of the liver, particularly around the acute margin, and between the convolutions of the intestines. This lymph varied in degrees of firmness, appearing, at the under part of the liver, to be converted into a tolerably well-organized band of false membrane, attaching it to the opposed surface of peritoneum: in other parts it was plastic, and in the pelvis, some little flakes were seen, swimming in serous fluid. The mesenteric glands were greatly enlarged, and also those along the psoas muscle and brim of the pelvis. Some of these were of a scirrhous hardness, others of a chalky consistence. Those on the brim of the pelvis were particularly enlarged, so as greatly to encroach on the dimensions of the superior strait. The uterus and its appendages had not contracted adhesions, both anterior and posterior pouches being entire.

The situation of the stricture was a little more than an inch below the os; and above this part, the vagina appeared thin and distended, forming a continuous line with the dilated os, the circumference of which was above four inches. The cervix rapidly became thicker, and, for upwards of three inches towards the fundus, the parietes were fully double their normal size. The upper half of the body of the uterus was somewhat more bulky than natural, and its cavity slightly increased. The broad ligaments were unaffected, but their appendages were much less delicate than natural. There was a cavity within the cervix, which formed the chief dilatation, so expanded as to be able to enclose a goose's egg. The rugæ and cells of the cervix were greatly diminished, and their surfaces presented a slight appearance of fibrinous effusion. Some few longitudual striæ were visible, more particularly at the posterior part, apparently the result of a recently-contracted cavity.

The preceding case confirms the opinion, that operations about the vagina and perineum are occasionally followed by inflammation of the peritoneum; and it ought to induce caution in the prognosis. The first division of the septum was not succeeded by mischief of any kind: yet, although there was no difference in the mode of operating, a second incision through the parts led to a fatal attack of peritonitis. The distention of the cervix, while the fundus and body of the uterus retained their normal form and size, is singular, and corroborates the statements, lately made, as to prolapsus of the neck of the uterus by stretching, and perhaps by growth, while the parts of the viscus, above the cervix, remain in their original state. If, as this case proves, effused fluid may distend and stretch the cervix, independently of other parts of the organ, it is not difficult to conceive that the same result may occur from other causes.

Case 22.

AMENORRHŒA DEPENDENT ON CONGENITAL ABSENCE OF THE VAGINA.

Abridged from the case, as reported by M. Amussat in the Gazette Médicale for December 12, 1835.

A young lady, æt. 15, was in bad health, owing to amenorrhœa. The menstrual effort occurred every month, but without any discharge,

and the abdomen was distended by the gradually enlarging uterus. There was no vagina, but the urethra terminated naturally. A finger introduced into the rectum, and a sound passed into the bladder, detected the uterus, large and fluctuating; and it was also ascertained, that there was so little space between the posterior part of the bladder and rectum, as to render it impossible, or very hazardous, to form an artificial vagina by the knife, lest these important viscera should be wounded. M. Amussat, the other medical attendants having given up the case as hopeless, proposed to separate the contiguous organs by traction. He began by depressing the mucous membrane of the pudendum, just below the orifice of the urethra. Guided by a sound in the latter canal, he carried his finger onwards in the space between the rectum and urethra, and secured the ground he gained each day, by a properly adjusted sponge tent. At length he reached the distended uterus, and, after a small opening by a trocar, he enlarged the os uteri, by a bistoury, keeping it open for some time by a canula. Menstrual fluid was evacuated, not only through the aperture thus formed, but also by a spontaneous opening through the rectum. The sequel of the case is encouraging; the patient entirely recovered, and, when the account was published, was not only menstruating regularly, but about to be married.

Other cases of this kind may be found in the different medical authors.

I forbear to enlarge the size of the book by the addition of illustrative examples of the other forms of amenorrhœa. They are so common and so well understood, and in some respects so closely resemble chlorosis, that the description of them in the text will suffice for their ready detection.

Case 23.

PROTRACTED AMENORRHŒA CURED BY MERCURY.

Mrs. H——, æt. 23, a native of the north of England, of dark and sallow aspect, and evidently unhealthy, was placed under my care in August 1823. Has been married between three and four years, but without pregnancy. Menstruation commenced at fifteen; but it has scarcely ever observed the regular periods, and it has occasionally been absent for several months together.

Her present symptoms are amenorrhœa of seven or eight months'

duration: profuse leucorrhœa, sometimes of bad odour; pruritus of the genitals, always severe, but occasionally so intolerable as to compel her to keep her own room. Constipated bowels, the evacuations dark, scybalous, and highly offensive; healthy appetite destroyed, frequent craving for improper articles of food and progressive emaciation. Skin of dark, icterode hue, lips and lining membrane of the mouth colourless. Pulse 95 to 100, feeble and easily compressed; frequent dyspnœa, especially on the slightest exertion, but there is neither thoracic pain nor cough.

On inquiry, I found that Mrs. H. had been under the care of many practitioners, both in London and the country, and that nearly every plan of treatment had been tried, only excepting the mercurial. After explaining to herself and family, that as medicine had hitherto been unavailing, it was important at once to employ the most efficient means; I proposed that mercury should be exhibited to such an extent as to affect the system, and that soreness of the mouth, and gentle salivation should be kept up for three or four months. I was the more induced to do this, because I found the uterus generally slightly enlarged, and the os and cervix hard, uneven, and tender to the touch.

The patient was removed a few miles into the country, and on August 20th, 1823, commenced the following treatment:

Sumat Pil. Hydr. gr. iij. Pulv. Opii gr. $\frac{1}{8}$ in formâ pilulæ nocte, maneque.

Infricand. Ung. Hydr. ℈ iss. inter femora quaque nocte.

She was allowed wine and meat diet, and particularly enjoined to keep in the house and avoid cold.

Sept. 10th. Gums very tender for the last two or three days, and there is decided salivation. There has been no menstrual effort. Complains of the inconvenience of the spitting, but the bowels are more regular, and the evacuations more healthy.

Sept. 20th. The gums are not so tender, but they are slightly swollen and spongy. Has only taken three grains of Pil. Hydr. occasionally, just to keep up the effect. There has been no catamenial effort, but the pruritus is nearly gone, and her aspect is certainly improved. Appetite better.

Oct. 20th. On the 17th of October, after some suffering, menstruation returned, and the flow continued for three days. In all respects better, and the family are struck with her improved complexion.

Nov. 28th. Was ordered to discontinue the mercury, as it was thought the effect would be maintained some weeks without its further

exhibition. The catamenia re-appeared at the expiration of the month without pain; the discharge was abundant, and of sanguineous colour. No return of pruritus. On examination, I found the uterus less heavy, and the os and cervix softer and less tender. Gargles for the mouth, sarsaparilla and bark, porter and wine, were freely given during the continuance of the treatment.

In January 1824, Mrs. H. was quite free from all mercurial influence, and in better health than she had been for many years. In November 1824, she gave birth to a boy, now (1839) living.

For several years this lady remained healthy; but she was subsequently so much exhausted by excessive hemorrhage after childbirth, that dropsy supervened, and she died before she reached her thirtieth year. I could add similar cases, demonstrating the value of mercury in protracted amenorrhœa, and where there is congestion of the uterus. Dr. Davis relates several such in the first volume of his Principles of Obstetric Medicine, one of the most valuable works of reference we possess.

CHAPTER III.

OF VICARIOUS MENSTRUATION.

DEFINITION.—*A discharge, generally of blood, from other parts than the uterus; superseding menstruation, and in its return, occasionally observing a menstrual period.*

History and Symptoms.—This vicarious discharge can scarcely be regarded as a disease, when the hemorrhage does not really derange and exhaust the system. Dr. Locock calls it a curious freak of nature. I think he is right in doing so; for the process, in most instances, equally wants the regularity of a healthy function, and the injurious influence of a disease. It is an event entirely out of course; for although it is scarcely ever met with except in connection with amenorrhœa, still by far the greater number of instances of this latter malady are unaccompanied by vicarious discharge. Generally, it occurs in the unmarried, at least my observation warrants this conclusion, but quite as often in the weak and delicate as in the robust. When married women are its subjects, conception rarely takes place during its continuance, although an interesting case, in which pregnancy more than once suspended the vicarious discharge, is recorded by Dr. Davis. The sterility, depending principally on torpor of the organic system of nerves, may likewise be farther insured by the amenorrhœal state of the uterine lining membrane, incapacitating it for the formation of the decidua. The vicarious discharge is usually blood, but it may consist in an excess of the natural mucus of the genital organs, constituting leucorrhœa. Some portion of the pulmonary and intestinal mucous tissues are thought to be the more common seats of the vicarious loss; but certain it is, that the nipples, the ears, the gums, the umbilicus, the bladder, the axillæ, any part of the skin or the mucous membranes, or the surface of an open

ulcer, may occasionally by gush, more usually by slow transudation for several days, furnish the vicarious blood. In the regularity of its periodical return, it seldom resembles the healthy function, although cases are recorded where the menstrual epoch has been exactly observed.

It has been assumed, but without proof, that before furnishing the vicarious discharge, the part must be in a disordered, irritable, or weak condition; but it has been frequently seen, that so far from structural change taking place in the vicarious organ, even its functional disturbance is generally slight, and the amount of subsequent constitutional disorder, is only proportionate to the blood lost. Where the nipples or mammæ are the seat of the hemorrhage, there is often the formation of a crust over the affected spot, which being thrown off, the bleeding occurs.

The time during which vicarious menstruation may continue to be repeated, is very uncertain. I have admitted patients into Guy's, expecting its re-appearance, and after keeping them in the ward for many weeks, have been completely disappointed, the amenorrhœa persisting, and the vicarious flow not returning. Local pain, constitutional irritability, and hysteria, are often premonitory of its periodical approach; and in a patient, who was subsequently a nurse in the Hospital, the surface and edges of a large menstrual ulcer on the thigh, were invariably more painful, hot, and swollen, prior to its furnishing the vicarious evacuation. There are cases on record, by Churchill and Siebold, where excessive salivation has supplied the place of the catamenia. Such an instance I have never seen.

Causes.—The suppression of an accustomed secretion, and the sudden, or even the gradual supervention of plethora or congestion, may account for these local and vicarious losses. But why this form of menstruation should occur so rarely, if it be preventive or curative of these morbid conditions, is a question which I cannot answer.

Diagnosis.—The distinction can scarcely be difficult, between vicarious and common hemorrhage. The existence of amenorrhœa, the occurrence of marked catamenial effort and the vicarious evacuation, together with the absence of the local and con-

stitutional symptoms of primary hemorrhage, will remove all doubt.

Prognosis.—I am not aware that any case has ever terminated fatally. So far as my observation has extended, the uterus has ultimately resumed its peculiar function, nor has the vicarious organ ever suffered any permanent injury. The duration of this curious process will much depend on the obstinacy of the amenorrhœa, the effect of the vicarious loss, and the treatment.

Treatment.—The extent to which remedies shall be employed, must be determined by the amount of the hemorrhage, the effects of the loss, and the warning of its approach. If the process has been frequently repeated, and there are premonitory symptoms, emmenagogues may be used, if there be no plethora or congestion. If, however, there is engorgement of the uterus, cupping on the sacrum or loins, leeches to the os uteri, vulva or anus, must precede the use of any stimulants. A smart drastic purgative may not only prevent the vicarious attack, but also induce menstruation; and I have several times, after preliminary depletion, witnessed the good effects of electricity and the strong mustard hip-bath, at a high temperature.

If the hemorrhage, having come on suddenly and without any previous indication, is moderate, interference is unnecessary, the advantages of healthy menstruation being partially secured by it. But if, on the contrary, a large quantity of blood is lost, and from an organ important to life, then similar measures must be adopted as in hemorrhage, not vicarious. The infusion of roses with nitrate of potass, dilute acid and digitalis, cubebs and bismuth, the acetate of lead, ergot, turpentine, and opium (vide formulæ), may be exhibited.

In the intervals, the treatment must be directed to the removal of the amenorrhœa: tonics, and especially iron, ought to be given. A residence at Tunbridge Wells, Malvern, Buxton or Matlock, or by the sea-side, is often decidedly advantageous.

Vicarious Leucorrhœa.—There is in health a secretion, exceedingly small in quantity, of colourless transparent mucus,

poured out by the uterine lining membrane, for the purposes of lubricating the opposite surfaces of the organ, and preventing friction and adhesive inflammation. When excessive, constituting leucorrhœa, it is occasionally, and more frequently than blood, vicarious of menstruation. Strictly speaking, there is amenorrhœa, because a mucous, instead of a sanguineous secretion, is furnished by the minute extremities of the uterine arteries. But there is activity instead of torpor; and it will be found, on inquiry, that all the symptoms denoting menstruation regularly appear, especially when this condition is vicarious of the catamenia at an early age.

The disease is most common in delicate and susceptible girls, at the epoch of commencing menstruation. I have seen it also in weak and exhausted women, and I have now under my care a patient nearly thirty-five years old, who, in consequence of frequent abortion and protracted suckling, being exceedingly impoverished and feeble, has for the last twelve months, suffered from vicarious leucorrhœa. The regular menstrual period has been exactly observed, and although the discharge has been fully as abundant as the natural catamenia, and has lasted three or four days, it has never till the last month been coloured. Conception in these cases is not an improbable event, as in several females who have come under my notice, where the menstruation was colourless, pregnancy has occurred.

In early life this vicarious leucorrhœa, if from its amount and periodical return, it is believed to be uterine and not merely vaginal, removes all impression of congenital defect or malformation. Nor, if the interval be free from excessive mucous discharge, is the health much deranged: a circumstance marking the difference between this form of vicarious menstruation, and chlorosis and amenorrhœa. It rarely happens that the uterine function is fully developed independently of medicine or change of air, although it is quite possible that, under favourable circumstances, perfect menstruation may almost spontaneously occur.

Pathology.—There can be no doubt that vicarious leucorrhœa depends not alone on disordered action of the secretory apparatus of the uterus, but also on the impoverished and attenu-

ated condition of the blood; and, in those instances where the discharge is always present, we may probably infer the existence of sub-acute inflammation of the uterine lining membrane. It is difficult to explain by what diseased action it is, that vessels accustomed to eliminate a sanguineous fluid should so far lose their full secretory power as to furnish only an increased amount of mucus. Some years ago I pointed out a similarly perverted action, occurring after labour, where aqueous discharge, occasionally in immense quantity, is poured forth instead of the lochia. And in hemorrhage from the intestines, an analogous phenomenon is somesimes presented, when a large quantity of mucus, exhaled from the villous coat, supersedes the sanguineous flow. Dewees regards vicarious leucorrhœa as a slow development of the menstrual function. Friend and Astruc were both cognizant of its occasional existence. The former denominated it "the lymph-like menses," and Astruc recognises it as leucorrhœa taking the place of the catamenia. Nauche, in his comprehensive, valuable work, "Maladies propres aux Femmes," looks upon vicarious leucorrhœa as salutary, thus confirming the views I have guardedly expressed. He says that in 1824 he had under his care a patient, twenty-four years old, plethoric and robust, but healthy sanguineous menstruation was absent. Instead of it, there was secreted every month, and with satisfactory results as regarded the health, a quantity of white mucus.

Diagnosis.—The occurrence of the leucorrhœa at the monthly intervals, the other attendant circumstances, and the absence of healthy menstruation will fully elucidate the character and origin of the malady.

Treatment.—This is nearly, if not entirely, the same as where hemorrhage is vicarious of menstruation. A nutritious and easily digested diet, exercise, pure air, and tonics, especially iron, will so far improve the blood and impart constitutional vigour, as sooner or later to induce healthy menstruation.

CASES OF VICARIOUS MENSTRUATION.

Case 23.

REPORTED BY MR. EBENEZER VORLEY.

Sarah ———, aged 17, of short stature, fair complexion, and unmarried, became an out-patient of Dr. Ashwell, August 19th, 1836. Excepting an attack of intermittent fever, which occurred about four years ago, her health, though delicate, has been generally good. The catamenia first occurred two years since, while engaged many hours in the day at a sewing business; twelve months elapsing before their second appearance. Since this period, the function has been irregularly and scantily performed. Half a year subsequently to this return of menstruation, she had a vicarious secretion from the breast, preceded by an effusion of blood under the skin of the mammæ. The cyst soon burst, and discharged its contents: a cicatrix partially formed, slightly pitted, and discoloured round its edges. The same process has been performed at every menstrual period since; excepting on one occasion, when the catamenia appeared more naturally. The secretion is almost invariably from the left breast; the right only once having been similarly affected. The mammæ are much enlarged, exceedingly painful, and very tender a few days prior to the expected period, at which time there are severe pains in the lower part of the abdomen, loins, and back. There is also abdominal swelling. It has several times happened, that there has been a very slight catamenial show, but it has not proceeded to a full menstruation; and the breast, under these circumstances, has invariably performed its vicarious function. There is moderate leucorrhœa during the intervals, becoming excessive at the periods. She has little appetite; and, after food, suffers greatly from pain in the epigastrium, flatulence, and heartburn. The bowels are very confined, requiring large doses of aperient medicine for their full evacuation.

Pulse 108, feeble, and easily compressed. The tongue is coated with white fur; and her sleep is disturbed by pain in the inferior extremities and lower part of the abdomen.

Let her use the Ammoniacal Injection daily: take the Colocynth and Calomel Pill three times a-week; and the Mist. Ferri C. twice a-day.

The treatment was continued for some months, her health gradually improved, the leucorrhœa disappeared, and in February 1837 the catamenia were natural and regular.

Case 24.

August 20th, 1838. Miss ———, aged 17, a native of London, began to menstruate at 15, and after continuing to do so for a year, the discharge entirely ceased. Soon afterwards she had cough, and slight hœmoptysis. The latter symptom disappeared, and for the last six months she had vicarious hemorrhage from the ears. At the time I visited her, the blood filled the external meatus, and I was told by her mother, that the loss from both ears had never been less than three ounces at each period, and that it came away slowly. By a piece of sponge I cleared the meatus, and afterwards I saw the blood slowly exhaling from the inner surface. As there were decided symptoms of chlorosis, and a feeble pulse, I ordered small doses of iron, an improved diet, and a visit to Tonbridge Wells.

I did not see this patient again till several months after her return, but I had previously heard that the vicarious discharge entirely ceased in two months, her health in the interval having been materially improved by the return of natural menstruation.

Case 25.

VICARIOUS LEUCORRHŒA.

Mrs. L———, aged 40, residing in Kent, consulted me the 2nd of August, 1838, for vicarious leucorrhœa. She is thin, pallid, and extremely weak, although formerly robust and *embonpoint*. Menstruation commenced at seventeen, and after her marriage, which occurred when she was thirty years of age, she frequently suffered from its scanty and painful return. She has had two children at the full term, and five miscarriages, alarming hemorrhage having attended every abortion. For the last year the menstrual period has been regularly observed, but the discharge has been less and less sanguineous; and for nine months the secretion has been entirely bloodless. There is also considerable leucorrhœa in the catamenial intervals. Complains of extreme giddiness, and eannot occasionally stand upright. Pulse from 90 to 110, weak and small, appetite nearly destroyed, and the bowels never act without medicine. Hysterical fits often occur, and she is nervous almost to insanity.

She was ordered to the seaside, a nutritious diĕt was enjoined, with a small quantity of wine and malt liquor; the salt shower tepid bath, and constant exercise in the open air.

℞ Tinct. ferri. Muriat. Tinct. Humuli. Spir. Ammon. Aromatic. āā ʒiv. M. ft. Mist.

Take thirty drops in a tablespoonful of port wine three times a day.

A mild aperient when required; and a vaginal injection twice daily of sea-water.

I heard from this patient after a month's residence at Brighton: she was improved in many respects, but the vicarious leucorrhœa continued. She followed the plan laid down, and when she called at my house in December, having only a few days previously returned from the sea-side, she said that her health was perfectly re-established, but that the menstrual discharge was only slightly sanguineous. I enjoined a continuance of the iron.

CHAPTER IV.

OF DYSMENORRHŒA.

DEFINITION. — *Menstruation, preceded and accompanied by acute, and often lancinating pain in the uterus and adjacent parts, and occasionally in the mammæ, with derangement of the secretive function; the catamenia being usually, though not invariably, scanty in quantity, and in the severer and more chronic cases, clotted, shreddy or membranous.*

History and Symptoms.—Dysmenorrhœa is an important disease. It is very common, and produces extreme suffering—it often prevents conception; and if pregnancy has occurred during its continuance, the patient is exposed to the risk of abortion. Although, in itself, it is not a fatal malady, yet it admits of proof, that malignant diseases have followed its protracted existence; and lastly, it is exceedingly difficult to cure. It is not confined to one class of females; the married and the single, particularly the latter, are obnoxious to it. It prevails among women of irritable temperament, and of delicate, strumous, and phthisical constitutions. The habits of the rich, therefore, by fostering these tendencies, have a direct influence in promoting it. There are examples too, although rare, among women of sanguine temperament. Every case of merely painful menstruation must not be regarded as dysmenorrhœa. If, for example, the pain and tightness of the head, the pain in the lumbar and hypogastric regions, which have preceded the menstrual period, diminish and pass away as the secretion increases; such a case is not dysmenorrhœa. Scanty menstruation, is not always pain-

ful; nor is the opposite state, where the function is copiously performed, always free from suffering. Dysmenorrhœa is often co-existent with menstruation; often after a prolonged and healthy continuance of the function, a change in the general system, or some of the exciting causes, to be mentioned hereafter, induce its approach.

The earliest symptoms of *irritable* or *neuralgic* dysmenorrhœa, where there is neither inflammation nor congestion are referrible to general disorder of the health, such as impaired appetite, great languor, gradual loss of flesh, and uncertain action of the bowels. The catamenia become irregular, sometimes appearing in excess, with a prolonged interval; while at other times suppression is an early morbid indication. The discharge is emitted with almost indescribable pain, being shreddy, clotted, and generally scanty in quantity. These symptoms vary much in different cases. In some individuals, they are but temporary, continuing only for the first day or two of the period; when after the expulsion of a small clot not always firmly coagulated, the discharge assumes its natural consistence, and is unaccompanied by more than the usual local uneasiness. In others, the whole time is one of intense suffering, commencing with sharp, darting, lancinating pain in the uterus and vagina, and extending apparently to the uterine appendages. There is acute sympathetic pain in one or both breasts; the lumbar pain, running down the sacrum to the thighs and groins becomes excessive: and during the emission of the discharge, the expulsatory pains, resembling the throes of labour, add much to the suffering. The intensity and duration of the pain depend much on the nature of the discharge, the rigidity of the structures, and the nervous susceptibility of the patient. In some instances, the catamenial period is preceded for two, three, or four days, or a week, by severe pain in the mammæ. When the menstrual period has ceased, the suffering is for the time at an end, and the strength is less reduced than might have been expected. During the whole period, little febrile excitement exists, and the amount of constitutional injury, from one or even several of these attacks, is inconsiderable. By and by, however, if proper treatment be neglected, or if the disease is so invete-

rate, as not to yield to it, the general health becomes much impaired, and the reciprocal morbid action of the one upon the other greatly aggravates the case. Without any sympathies of the uterus, with the exception of the mammary being called into prominent exercise, the bowels become uncertain in their action, being sometimes constipated and then unduly relaxed, even from a mild purgative: the hepatic secretions are variable in quantity: and occasionally there is pain and excoriation about the anus, from their acrimonious nature. The appetite is capricious and small, food is almost loathed, the blood becomes impaired, and imperfect nutrition is evident from paleness of the general surface, emaciation and loss of physical power. In this stage of the disease leucorrhœa becomes profuse, if it has not habitually existed; and sometimes amenorrhœa supervenes, thus entirely suspending the uterine suffering. In connection with the continuance of this menstrual suppression, the mammæ become flaccid and almost disappear, and the torpidity of the uterus excludes that viscus from a healthy discharge of its functions.

In *plethoric dysmenorrhœa* there is not much deviation from the symptoms now described; but the menstrual period will be preceded by headache, flushing of the face, full and quick pulse, a sense of weight in the pelvis, rigors and sometimes by delirium. These precursory symptoms are followed by the catamenia, which are sometimes profuse with more or less of coagula. More frequently, however, the discharge is scanty, and consists of clots with portions of membrane, and the difficulty of emission is extreme. The pains resemble those of labour; the patient bears down with considerable effort, and after many abortive attempts, a paroxysm of uterine suffering is relieved, by the expulsion of a small concrete clot, or a detached portion of membrane. It must not be supposed that only the plethoric women expel these false membranes; women of an opposite temperament may do so, and for a lengthened period; an ill-advised use of emmenagogues aiding such a result.

Congestive Dysmenorrhœa.—When the affection of the mucous membrane is attended with a partial inability to secrete the full quantity of menstrual discharge, the large and repeated doses

of aloes and steel, so often given with the intention of compelling menstruation, augment the quantity of blood in the uterus, which remaining stationary, every successive period is accompanied with an increase of congestion, till at length this form of the disease is fully established. The premonitory symptoms in this variety are comparatively slight. A sense of weight in the pelvis, with the bearing down pains of prolapsus, lumbar pain, frequent micturition and constipated bowels, denote an enlarged uterus. But it is not till the function is about to commence that the very severe symptoms arise. There is then intense uterine pain, with a sensation as though some foreign body were shut up in the uterine cavity; and in the attempts at its expulsion, the uterus is aided by the voluntary, as well as involuntary efforts. The paroxysms occur as in labour, but in dysmenorrhœa there is no interval of ease. Incessant restlessness comes on; the patient looks anxious and pale, and frequently attempts to micturate, and as the contraction of the bladder is evacuating the urine, she uses all her power in the vain endeavour to expel a clot or portions of membrane. Sometimes there is spontaneous relief afforded by the passage of a small concrete mass; but this is temporary, and it is only with the cessation of the period, that she can be said to be relieved from her sufferings. One marked peculiarity of this form is the absence of imflammatory symptoms. The pulse is rather weak, sometimes quick and irritable, the skin is perspirable, and there is exhaustion not inflammation. During the intervals of congestive dysmenorrhœa, where false membranes are constantly expelled, there is generally abundant leucorrhœal discharge, the health becomes increasingly disordered, the mammæ shrivel, and the legs are œdematous. It is in this variety that spurious abortion most frequently occurs. A mass is ejected from the uterus, which is made up of a condensed or laminated coagulum with portions of membrane, or a membrane moulded to the cavity of the uterus, inclosing a large coagulum. Illustrations of these are beautifully delineated in Dr. Granville's work, and hereafter I shall give Dr. Montgomery's distinctions between this form of membrane and the true decidua.

The late Dr. Mackintosh, of Edinburgh, pointed attention

to *dysmenorrhœa dependent on mechanical obstruction*, caused by contraction or stricture of the canal of the cervix, or by partial imperforation of the os uteri. Capuron also alludes to it, and other authors think that in some very rare cases, the malady may be attributed to such a cause. There is no doubt that dysmenorrhœa has occasionally co-existed with such malformation; but it is by no means certain that it owed either its origin or its continuance to such a state of parts as its cause. Dr. Churchill, in one instance, distinctly ascertained the presence of a stricture half way up the canal of the cervix; but its dilatation left the dysmenorrhœa as bad as before. A few years ago I examined the cervix after an extremely severe and protracted attack of the disease, and I satisfied myself and a professional friend, that there was really narrowing of the canal. This was entirely cured by bougies; but the catamenial suffering was not at all alleviated. In another case I was more successful, and Dr. Ryan entirely cured one of the very bad forms of dysmenorrhœa by metallic bougies. In Dr. Mackintosh's examples there is nothing proved as to retention of the menses, which might have been looked for if the mechanical impediment had been so complete as "scarcely to admit a bristle." He tried the treatment by bougies in twenty-seven instances, and cured twenty-four. In eleven of the latter number, pregnancy subsequently occurred. As the introduction of bougies must act as a direct and powerful uterinē stimulus; the advantage, even where contraction really exists is not necessarily entirely attributable to dilatation. In doubtful cases an internal examination ought to be made; as dysmenorrhœa may depend not only "on a small os, but on inflammation of the lining membrane, and of the neck of the womb, and on tumours diminishing the calibre of the passage through the cervix." Still I believe that the views of Dr. Mackintosh are more correct than is generally supposed, and they should not be disregarded in protracted and obstinate dysmenorrhœa.

Causes.—It is not at all times easy to specify the exciting cause. The history usually brings to light some symptoms of uterine irritation, more or less acute; some catamenial irregularity, some proof of a temperament disposed to strong emotions. Among married women, miscarriages, premature confinements,

and particularly the various effects of cold, may be enumerated as preceding the complaint. Nor must uterine determination or congestion be forgotten, by some pathologists regarded as the most frequent cause of all.

Diagnosis.—But little need be said on the diagnosis of dysmenorrhœa: as in the great majority of cases, the functional disorder is clearly ascertained, and the symptoms well defined. It is only in the cases of spurious abortion, where the characters of individuals may be ignorantly aspersed, that much discrimination is required. The duration of the complaint, the nature of the menstrual secretion in former periods, the enlarged state of the uterus from congestion, as ascertained from examination by the vagina and rectum, independently of the physical characters of the product are quite sufficient to satisfy any observer. Dr. Montgomery, in his elaborate and accurate work, on "The Signs and Symptoms of Pregnancy," thus expresses himself, in reference to the peculiarities which distinguish the dysmenorrhœal membrane.

"The substance expelled in this disease will be found deficient in several of the properties of the true decidua; for although produced by an action in the uterus analogous to that by which it prepares the decidual nidamentum for the reception and support of the ovum, it differs therefrom in two essential points; first, that it is a morbid product; and secondly, that not being intended, like the true decidua, to become an organ, or at least a medium of nutrition for the ovum, it is not furnished with a structure such as would only be required for the performance of such an office; hence, it is thin, flimsy, and very unsubstantial in its texture; of a dirty white or yellowish appearance when slightly agitated in water, devoid of the soft, rich, pulpy appearance, deep vascular colour, and numerous foramina for the reception of the nutrient vessels from the uterus, which are always so distinctly observable in the true decidua, which however in one point it resembles, having its inner surface smooth, and the outer unequal, but of a ragged, shreddy appearance, unlike that of the healthy uterine decidua, and it is, moreover, entirely destitute of the little cotyledonous succuli already described as an essential character in the latter structure. In texture, it more nearly resembles that of the reflexa than

any other structure; but no trace of the transparent membranes of the ovum can be discovered within it, or attached to it, and should it happen to come away entire, in the form of a hollow triangular bag, we never find within it a duplicature of itself forming an inner pouch or reflex layer, as in the case of the natural decidual envelops of the ovum. Morgagni has given a very accurate account of this accidental product, as it occurred in the case of a noble matron of his country, who expelled it almost every month with pains like those of child-birth, having its external surface "unequal and not without many filaments that seemed to have been broken off from the parts to which they had adhered; but internally hollow, on which surface it was smooth and moist, as if from an aqueous humour which it had before contained."

Pathology.—Some authors regard dysmenorrhœa as a neuralgic affection, a disease of enervation, identical with hysteralgia and irritable uterus. Others take a different view of the malady, and consider it as invariably dependent on a morbid condition of the mucous lining of the uterus. The former attribute the pain, and all the other symptoms, to acute irritation; the latter, to inflammatory action. These conflicting opinions are not irreconcileable. In a great number of cases, particularly in delicate single females, there is only acute nervous irritation, affecting the muscular tissue as well as the mucous lining, and producing pain. In other and aggravated examples of the malady, there exists a low form of inflammation, modified by the peculiar membrane which it affects, and inducing intense pain. There are facts strengthening the impression, that dysmenorrhœa is often a disease of irritation. Hysterical and susceptible females are more prone to it than any other class. The pain is mostly unaccompanied by symptoms of inflammation; the pulse is quickened only during the paroxysm; this being over, it again subsides; and the flushed face and hot skin are often succeeded by a cold and clammy surface. Acute pain may exist without inflammation, and a layer of lymph may, as in dysentery, be thrown off from the intestinal mucous surface, without decided inflammatory action. Neither the pain of labour nor the after-pains, occasionally so protracted and agonizing, are inflammatory;

and yet, if the degree of pain were to be the criterion, one might easily believe that inflammation really existed; for certainly no suffering from dysmenorrhœa can be greater than the pain attendant on labour and its subsequent contractions. In other cases, and which are thought, (by the supporters of the opinion that inflammation is invariably present,) alone to deserve the appellation of dysmenorrhœa, a modified and low form of inflammation certainly exists, which produces a false membrane, assuming, in some instances, the shape of the uterine cavity, and in others, being expelled in detached portions. I quote the following remarks from a clear and practical paper on this malady, read before the Medical Society of Guy's Hospital in 1839, by Mr. Henry Oldham, one of the obstetric assistants of the institution.

"There are so few instances in which minute investigations of the exact condition of the mucous membrane and body of the uterus in dysmenorrhœa are permitted, that we cannot offer any remarks on the visible changes in these structures. We are consequently left to the far less secure, but the only admissible mode of inferring the character of these alterations, from the symptoms which accompany the affection and the analogous productions from other mucous membranes. There can be no doubt that mucous membranes, though prone to suppurative inflammation, often throw off from their surface false membranes of organized lymph. The trachea in croup, the intestines in some forms of dysentery, the urethra under inflammation, are familiar examples of the kind; and there is but one common explanation of this occurrence, viz. that the products of inflammation are present, and that the lining membranes of these several organs are the seat of the diseased action. The uterus presents a precisely analogous instance in dysmenorrhœa, and we hence infer, that its mucous lining is in a similar state."

A paper presented to the Statistical Society in 1839, by Mr. Lever, another of the obstetric assistants of the Hospital, and displaying his usual research, confirms these views, by showing that one of the occasional ultimate results of dysmenorrhœa, is structural change of the uterus. A protracted dysmenorrhœa, where the false membrane has been habitually secreted, and the fact will be noticed in the appended cases, is liable to induce

thickening and induration of the os and cervix. This is the result of chronic inflammation, and is only to be feared from the probability of its assuming a malignant character in women possessing a cancerous diathesis. By such a structural change, whenever it affects the channel of the cervix, mechanical dysmenorrhœa may be induced.

Prognosis.—This will be more or less favourable, according to the views entertained of its nature. If, like irritable uterus, dysmenorrhœa be regarded as invariably a neuralgic, not an inflammatory disease, it may be severe and protracted, but it will not be fatal. In fact, I know of no instance where a termination so serious has been its immediate result. But, if a scirrhous or carcinomatous change of the uterus follow, even very rarely in its train, then a prolonged dysmenorrhœa is a great evil. It must not, however, be forgotten, that in the majority of instances, the affection is cured, either by medical treatment, marriage and child-bearing, or by the natural permanent cessation of the catamenial function. From observation, I am disposed to think, that marriage and connubial intercouse are frequently remedial; the probability or impossibility of such events must therefore influence the prognosis. It is not meant to be affirmed, that they are invariably curative, or that aggravated examples of the affection are not to be found amongst married women. I am now attending an unmarried patient in her forty-fifth year, who, from fifteen to forty-two, (when the function entirely and suddenly ceased,) invariably suffered from dysmenorrhœa. Her sister was similarly affected till her marriage, but that event, and frequent pregnancy, entirely displaced and cured the dysmenorrhœa. In the former case, I have examined the uterus very carefully, but I cannot discover any structural change either in the body, cervix, or os. The utmost caution should be used in the investigation of suspected structural change, supposed to be connected with dysmenorrhœa, as, in the opinion of the sex, very little suffering is sufficient to induce them to denominate any case painful menstruation. A few years ago, it was a matter of doubt whether the false membranes of dysmenorrhœa could be formed independently of impregnation. This point is now laid at rest, and no suspicion

can for a moment be entertained of the purity of any individual so circumstanced. It has been thought, too, that conception was entirely incompatible with this disease. I have known pregnancy occur in several instances, almost immediately after the marriage of dysmenorrhœal patients; but it cannot be doubted, that an aggravated form of the malady must be unfavourable to such an event, and that sterility may often be fairly attributed to such a cause.

Treatment.—This is necessarily different; for, while inflammatory and congestive dysmenorrhœa require depletion and antiphlogistic measures, the neuralgic or irritable form calls only for narcotic and slightly nauseating remedies. There are, however, in the treatment of every variety, two principal indications; to alleviate the urgent pain of the menstrual period, and to employ, during the intervals of the discharge, such remedies as shall restore to the uterus its healthy secretory power. Both are occasionally accomplished with difficulty; the first, however, is generally the most easy of fulfilment.

In the more ordinary variety of the malady, the *neuralgic*, the mustard hip-bath and some narcotics are especially beneficial; if the attack be aggravated or of frequent recurrence, then ipecacuanha or antimony ought to be employed. But to be more precise: let the patient, on the first premonition of pain, commence the use of the hot bath at 96 or 98°, and ordinarily remain in it for a half or three quarters of an hour, repeating it three or four times in the twenty-four hours, and always guarding against the effects of cold, by keeping in a hot bed, so long at least as to allow the skin to resume its ordinary temperature. When the pain is very severe, the bath may be continued until faintness is induced; and if it be inadequate for this purpose, then half a grain of ipecacuanha, or fifteen or twenty drops of antimonial wine may be exhibited every hour. It will be found, that the general relaxation of the cutaneous surface, and the attendant and temporary depression of the system, greatly favour menstrual secretion. In the milder cases, a hot hip-bath and slight narcotics will suffice. Camphor, ipecacuanha, and hyoscyamus, the Dover's powder, the extract of hop, lettuce, conium and belladonna, variously combined (vide formulæ), relieve the pain and induce perspiration and sleep. If perspira-

tion is with difficulty obtained, three, or four, or five grains of antimonial powder may be given, by which a diaphoretic effect will be insured. Sometimes, when the pain is terribly severe, and the cerebral excitement goes on nearly to delirium, one quarter, or half a grain of the acetate of morphia may be given at night; and smaller doses, either of it, the muriate or meconate of morphia, or Battley's Liquor opii sedativus, at intervals during the day. A suppository of opium, conium, hyoscyamus or belladonna, is often effectual in relieving the pain. In some cases, from the forcing, bearing down efforts, we can distinctly recognize the attempt on the part of the uterus to expel a clot. Here the ergot, either in decoction or tincture, may be repeatedly given, and an interval of marked ease, however brief, will occasionally follow its expulsion. It would be difficult to speak with precision of every modification of treatment; but enough has been said to enable the practitioner, while he maintains the principle, to vary the mode of management. In a French publication of the Society of Agriculture, Sciences, and Arts, Dr. Patin recommends the acetate of ammonia for dysmenorrhœa; enjoining, however this caution, that as it diminishes the discharge, it must be used with reserve. He says, that so far from being a stimulant, it is really a sedative remedy; and he regards it as applicable in any case, whether of dysmenorrhœa, profuse menstruation, or menorrhagia, if there be morbid excitement of the female genital system. This physician gives from forty to seventy drops three or four times daily; the only inconvenience being slight and transient giddiness. I have no experience of this remedy.

In the *inflammatory* and *congestive* forms of dysmenorrhœa, in addition to the remedies already enjoined, local depletion is peremptorily required; and there are cases, where there is vascular fulness, in which a small general bleeding will be advantageous. Congestion almost invariably prevents secretion; the unloading of the vessels, therefore, aids the flow of the discharge. In the majority of instances, cupping on the loins, to the extent of eight, ten, or twelve ounces, or leeches will suffice, and, if necessary, the bleeding may easily be repeated. Leeches to the os uteri have been already mentioned, and I think, that when well applied, they are decidedly more beneficial than

any other local depletion. Several times I have witnessed their superior efficacy in relieving the severe pain; in one instance, where the patient had been in the habit, for several years, of being occasionally cupped, the relief afforded by thus directly unloading the congested vessels themselves, exceeded, to use her own expression, any idea she could have formed. The speculum tube may be introduced into the vagina prior to their application; and if the cervix be brought fully into view, neither the vagina nor any other part than this portion of the congested viscus will be fixed on by the leeches. Their use should, as much as possible, be confined to married women, and a clever nurse should be taught to apply them. The hot-bath, as heretofore advised, sudorific, nauseating and anodyne medicines may all be used. Hot poppy fomentations to the abdomen generally, and particularly to the hypogastric region, injections, several times during the twenty-four hours, of poppy and conium into the vagina, so as constantly to bathe the lower part of the uterus, will encourage the discharge and sooth the pain.

The *second* part of the treatment comprises the management during the catamenial intervals. In the neuralgic and irritable form of the disease, the object is to improve the general health, principally by attention to the disordered state of the digestive organs, and by the avoidance of local excitements. I need not dwell on the importance of mild and cordial aperients, in preference to drastic and mercurial purgatives. An occasional alterative, such as the grey powder, or a moderate dose of blue pill, is required, but active and repeated purging must be injurious. Afterwards, the various preparations of iron, combinations of the mineral and vegetable tonics, omitting them when the bowels are disposed to be relaxed, a nutritious and unstimulating diet, pure air, a temporary residence at places celebrated for their chalybeate waters, and gentle but persevering exercise, are the most important indications. Dr. Dewees, one of our ablest obstetric writers, regards the neuralgic form of dysmenorrhœa as analogous in its nature to chronic rheumatism; and strongly recommands, in the intervals of the disease, the volatile tincture of guaiacum; adding, that he has relieved many dysmen-

orrhœal patients by the antiphlogistic plan, but cured none. He begins with drachm doses of the tincture three times daily, increasing the quantity to three drachms three times daily, in a glass of wine. His success has been great; mine, although I have often tried the guaiacum, has been inconsiderable.

In the *inflammatory*, and especially in the more frequent *congestive* form of dysmenorrhœa, local depletion, saline aperients, and spare diet, are particularly necessary; nor should they be discontinued till the volume of the uterus is satisfactorily lessened. The hot hip-bath three times a-week, and warm injections of the fotus papaveris twice a-day, will topically aid the former and more important remedies. Afterwards, mild tonics will complete the restoration of the patient. Bearing in mind what has been already said, of structural uterine change following chronic dysmenorrhœa, mercury must not be forgotten in the inveterate cases. In the preceding chapter, when treating of its deobstruent effects, I pointed out certain conditions as unfavourable to its use; but, where these indications are absent, there is no medicine so likely to prove efficacious. It may be employed in both the varieties, if their continuance is exceedingly prolonged, and the false membrane is habitually expelled; but certainly mercury is most beneficial where there is a thickened and indurated cervix, the result of chronic inflammation.

The effect of the inunction of the iodine ointment on the neck of the uterus, where it is enlarged and hardened, is most satisfactory. This subject will, however, be more fully treated of in the chapter on hard tumours of the os and cervix.

Case 26.

CHRONIC DYSMENORRHŒA—PREGNANCY SUPERVENING AFTER FOURTEEN MONTHS.

OCCURRING IN THE PRACTICE OF MR. HENRY OLDHAM.

Oct. 20. Mrs. H———, a young lady of lively, active habits, was married in July 1838. For three or four years previous to her marriage, she appeared constitutionally delicate, and during this time she suffered from occasional menorrhagia, followed by menstrual suppression, the continuance of which varied between six weeks and two months. This condition of the uterine function was attended with great languor under exertion, imperfect nutrition from loss of appetite, irregular action of the bowels, tympanitis, hysterical emotions, and leucorrhœa more or less profuse. During the latter part of this time she had several attacks of glandular swellings, and the right lobe of the thyroid remains permanently enlarged.

The first three months of marriage were attended with marked improvement in her general health. The appetite became healthy, the features firm, the animal spirits buoyant, and everything indicated confirmed health. About the fourth month after marriage the first symptoms of dysmenorrhœa appeared. The menstrual period was preceded by intense pain in the mammæ, lasting for days, which was relieved only when the catamenia commenced to flow. The discharge itself was altered in quality, being clotted, and in its expulsion occasioned much local suffering. The pains, however, subsided with the discharge, and the first periods were passed, leaving only a temporary sense of exhaustion. She came under my care in March 1839. At this time she was labouring under an attack of dysmenorrhœa, which had been preceded by great irritability of the mammæ, lasting eight days. The local sufferings were very great, and the discharges consisted of occasional fibrous masses, with detached portions of membrane and a brownish coloured fluid. During the attack she complained much of exhaustion, her appetite left her, and the least exertion aggravated the pain. She was ordered the hot hip-bath, with hot poppy fomentations, and the following pills:—

℞. Ext. Hyoscy, gr. iv.
Camphoræ Rasæ, gr. iij.
Pulv. Ipecac. gr. i. Ft. Pilul, ij. Ter in die sumend.

These had the desired effect of relieving the pain; but the symptoms after the catamenial period did not kindly pass away. There was continual aching of the loins and groin, as though the uterine ligaments were strained; a perpetual sense of weariness; indifferent appetite; and unrefreshing sleep. She also complained of pruritus of the external genitals, and leucorrhœa was present. The bowels were irregular, sometimes constipated, and at others relaxed. Circulation feeble.

It would be tedious to recount even a monthly report, although the symptoms were accurately noted. They partook generally of those already enumerated. At one time the tonic treatment pursued during the interval seemed almost to have re-established her health; but the intense agony of the succeeding period left the same exhaustion; and was followed by the same constitutional effects. The sedative treatment, with slight variations, was enjoined during the attacks, and chalybeates variously combined—occasional purgatives, with good, but unstimulating diet, were the main therapeutics in the intervals. She was ordered to the seaside, and marital intercourse was suspended. Temporary alleviations were often procured; but there still remained delicacy, and continued ailment with the same functional disorder, Her general health indeed seemed gradually to get worse; and some of her friends foreboded phthisis, without, however, any physical sign of thoracic disease being recognised. Iodine with the hydriodate of potash in small doses was given with some benefit; and the iodide of iron had a decidedly good effect.

In September 1839 she menstruated naturally, without antecedent pain; and the discharge was of its proper consistence, colour, and quantity, and the appetite greatly improved. In a fortnight after this period she complained of more intense suffering than she had ever before experienced in the hypogastric region, with lumbar and bearing down pains, inability to exert herself, etc. The mammæ also became intensely painful, so that the least pressure on them occasioned shivering and sudden pallor. On examining the uterus, the os and cervix were found hardened and painful, and the body of the uterus fuller than natural, its weight being sufficient to bear it low down in the vagina. A previous examination, about six weeks before this time, had detected the os and cervix larger than normal; but soft and rather painful when even gently touched. The local and sympathetic pains seemed to be premonitory of the menstrual flow; but this period passed away, and ten days afterwards Dr. Ashwell saw her with me. On examination, the volume of the uterus was found considerably augmented, and it was suspected that this suspension of the catamenia had occasioned the congestion.

Upon more careful examination, however, of the mammæ, a well formed areola was visible, and the existence of pregnancy became probable, and now, in November, the sympathetic affections have abundantly confirmed the opinion.

Case 27.

PROTRACTED DYSMENORRHŒA CURED BY MERCURY.

In January 1837, I visited Mrs. ———, æt 24, residing a few miles from town. She is delicate and of strumous aspect, and has been married nearly two years. She aborted soon afterwards, and has never since been pregnant. The present symptoms are intensely painful menstruation, accompanied by the expulsion of clots and portions of false membrane. Prior to marriage she suffered in a similar way, but not to the same extent. For a few months after this event, the dysmenorrhœa was materially alleviated; but since the abortion it has returned in aggravated degree. Now, pains in the hypogastrium, loins, and thighs, occur several days prior to menstruation, inducing fever and depriving her of appetite and sleep; the dysmenorrhœa lasts seven or eight days, and from exhaustion she is generally on the sofa a week afterwards; so that the disease and its consequences absorb nearly the whole month, and leave but little opportunity for curative treatment. Leucorrhœa is always present when she is not menstruating; the bowels are irritable and uncertain; sometimes constipated, and at other times, after a gentle aperient, or even after trivial mental excitement, violently purged.

In May, Mrs. ——— was no better, although she had fully pursued the treatment laid down in the previous pages. She was emaciated, and as she complained of constant heat and pain at the neck of the bladder, and of pain also in coïtu, I was allowed to examine. The lower part of the body of the uterus was enlarged, hard, and slightly tender; the cervix was thickened, generally increased in size, indurated and uneven, but without the stony hardness of malignant disease; the os was patulous, and its edges not smooth. The whole viscus was increased in size, and on raising it up on the finger, she was immediately relieved from pressure on the neck of the bladder, of which at other times she complained.

I now urged the importance of mercurial treatment, the recumbent posture, and the entire avoidance of sexual intercourse.

June 20. Mrs. ——— was ordered three grains of blue pill every night; and four ounces of the compound decoction of sarsaparilla, with two grains of quinine twice a day. Meat diet and mild ale; and she was also especially enjoined to be careful not to expose herself to cold.

July 24. The mouth has been affected, and the flow of saliva increased for the last fortnight; but there has been neither premonitory pain nor menstruation, although more than a month has elapsed since the last period. In other respects there is not much alteration; the countenance is still wan and anxious.

August 10. Menstruation has occurred with much less pain, and without either narcotics or the warm bath. Gums are sore, and the salivation is still going on, although one three-grain pill only is taken every third night.

Sept. 25. Has entirely discontinued the mercury for several weeks, and the last two periods have been passed with scarcely any pain, and without clots or membrane.

I have twice examined the cervix uteri, and although it is still tender, the induration is gone, and the size of the uterus and of the cervix also are again natural. This patient afterwards spent a considerable time in the country and by the sea side, entirely recovering her health and strength.

Case 28.

SEVERE DYSMENORRHŒA DEPENDENT ON INFLAMMATORY CONGESTION OF THE CERVIX AND BODY OF THE UTERUS.

OCCURRING IN THE PRACTICE OF MR. FENNER OF PENTONVILLE.

Miss W———, aged 29, began to menstruate so favourably at seventeen years of age, that she was unconscious of the occurrence. But after some months, she invariably suffered, (and has continued to do so to the present year 1839,) a few days before the periods from acute pains in the loins, and left hypochondrium, headache, flatulence, retching and violent palpitation of the heart. The pain in the left hypochondrium and the palpitation have since been almost constantly present in

greater or less degree. The periodical discharge is always dark, scanty, clotted, and membranous, never lasting more than a day and a half, and sometimes not so long. During the year 1838, there were superadded a shooting pain on the inside of the left thigh, leucorrhœa, and intense pruritus, rendering the condition of the patient extremely distressing.

Sept. 20, 1839. A period has just passed with such aggravation of the above symptoms as led to my being consulted. On examining the uterus by the speculum, I found its cervix and body considerably congested, and very painful to the touch. Moderate pressure with the finger instantly reproduced the palpitation of the heart, and the pain in the left hypochondrium, causing the patient to exclaim "Oh my heart! how it beats!" Then, "Oh my side! you are bringing on the pain in my side!" thus demonstrating that those sensations were merely sympathetic of the condition of the uterus.

Treatment.—She was bled to fifteen or sixteen ounces — a pill of Pulv. Antimon. gr. iii. Antimon. Pot. Tart. Hydr. Chloridi. āā gr. $\frac{1}{6}$. was given every six hours until the mouth became sore; afterwards it was continued once or twice daily, to maintain the derivative action, up to the time of the next period. A hip-bath, and an injection of warm water into the vagina, were used twice every day while the pains continued severe,—then every night. The patient was enjoined to keep much in her bed, and to use the Hydrocyanic lotion (vide formulæ) for the pruritus. External irritation was also kept up on the left hypochondrium by the Ung. Antimon. Pot. Tart.

Sept. 29. Much better; pulse 90, and less irritable; mouth sore; pain in the left hypochondrium, and palpitation less.

Oct. 1*st.* On examination by the finger, the uterus is found to be much softer, and less sensitive; nor even the pain and palpitation produced, as before, by pressure.

Oct. 17. As the period was expected to return very shortly, the patient was again moderately bled, complaining only of slight premonitory pain in the hip and head. She has suffered less during the interval than for years; her appetite and sleep being greatly improved.

Oct. 23. After passing a good night, and getting up well, the catamenia appeared, as at first unconsciously, and without pain.

It would be easy to verify the statements of the text by a far greater number of cases, as examples of the disease in its different forms, and of every degree of severity, are continually

presenting themselves in private and in hospital practice. But the instances cited may suffice to impress the importance of a correct view of the precise pathological condition of the uterus before commencing any active treatment. Nor can it be too strongly urged that as pain is the accompaniment of so many different morbid conditions, it is in dysmenorrhœa absolutely essential to know whether it be associated with an irritable and neuralgic, or an inflamed and congested uterus. Palliatives and narcotics may suffice in the former varieties, but in the latter, till inflammation and congestion be removed by depletion and antiphlogistic measures, neither narcotics, tonics, nor emmenagogues will avail.

I have already spoken of the advantages of leeches directly applied to the cervix uteri, when the dysmenorrhœa can be traced to congestion; and I have lately seen several cases, one in particular, with Mr. Fenner of Pentonville, who devotes much time to the investigation and treatment of female sexual disease, where by the aid of his speculum tubes, scarification of the neck of the uterus was freely practised. There was not during the operation, nor afterwards, any decided pain; and as three or four ounces of blood were quickly drawn, it will prove a far better, quicker, and less troublesome remedy than the application of leeches: the relief attendant on this novel process, was superior to what had ever resulted from the leeches. I believe this method of depletion may be safely, and often most advantageously resorted to.

CHAPTER V.

FORMULÆ OF REMEDIES.

It may not be without advantage that I should select, from the various remedies used in hospital and private practice, in the diseases already described, all of which are distinguished by paucity of the catamenial discharge, those which, after repeated trials, I have found most efficient.

APERIENTS AND PURGATIVES.

FORM 1.—*Pulv. Magnesiæ. Comp.*

℞. Magnesiæ Sulphatis ʒiss. Magnes. Carb. Sodæ Sesqui-Carb. āā ʒiv. Sodæ Hydrochlorat. ʒii. Pulv. Zinzib vel pulv. Aromatici ʒj. M. ft. Pulvis.

Take one, two, or three teaspoonfuls at bed time, or occasionally in the day, when the bowels are confined. Usually the powder may be mixed in warm water; but if a more decidedly aperient effect is desired, then half a bottle of soda water may be poured over the salt, and it may be swallowed in a state of effervescence.

FORM 2.—*Pulvis Purgans.*

℞. Pulv. Rhei gr. vj. Potassæ Sulphatis vel Sodæ Sulphatis gr. x. Pulv. Zinzib gr. iii. Ol. Cassiæ gtt. ii. M. ft. Pulvis Purgans.

Take one powder in warm water night and morning.

FORM 3.—*Pulvis Purgans.*

℞. Hydr. Chloridi gr. ii. Pulv. Jalapæ, gr. vj. Pulv. Cambogiæ gr. iij. Pulv. Zinzib gr. iv. Olei Cassiæ gtt. ii. M. ft. Pulv.

Take one powder in gruel, or barley-water, once or twice a week, at bed time.

FORM 4.—*Pulv. Scammoneæ c̄ Hydr. Chlorid.*

℞. Scammon. Gum. Resin. Pulv. gr. viij. Hydr. Chloridi gr. ii. vel iii. Potassæ Supertart. Sacch. Alb. āā gr. x. M. ft. Pulv.

Powders three and four will only occasionally be required; but where the secretions of the intestinal canal are vitiated and the hepatic functions are imperfectly performed, they, or some of the more active aperients (with occasional alteratives), will be efficient remedies, if judiciously and sparingly exhibited.

FORM 5.—*Pilulæ Colocynth. Comp.*

℞. Extr. Colocynth. C. Pil. Rhei Comp. Pil. Cambogiæ C. āā ℈i. Olei Cassiæ gtt. vj. M. ft. Pilulæ xii.

Take one or two pills at bed time every night, or every other night, or

℞. Pil. Colocynth. C. Pil. Galbani C. āā ʒss. M. ft. Pilul. xij.

Take two pills twice a day.

FORM 6.—*Pilulæ Aperientes.*

℞. Pil. Cambogiæ C. gr. xxx. Sodæ Carb. Quinæ Disulph. āā gr. xv. Ol. Menth. Pip. gtt. vj. Syr. qs. M. ft. Pilulæ xii.

Take two or three pills at bed time.

FORM 7.—*Pilulæ Aperientes Alterativæ.*

℞. Pil. Hydr. ℈i. Hydr. Chlorid. gr. x. Pulv. Antimon. gr. x. Antimon. Tartarizat. gr. iii. Pil. Rhei C. ℈i. Syr. qs. M. ft. Pilulæ xii.

Take two pills every other night.

FORM 8.—*Pilulæ Aperientes Alterativæ.*

℞. Pil. Hydr. Chlorid. Comp. ℈i. Pil. Aloes c̄ Myrrhâ ℈ii. Extr. Sarsæ Extr. Taraxaci āā gr. x. Syr. qs. M. ft. Pilulæ xvj.

Take two or three twice a day.

FORM 9.—*Mist. Purgans Communis.*

℞. Pulv. Rhei Magnes. Carb. āā ʒii. Conf. Arom. ʒiss. Infus. Rhei Aquæ Cinnamomi āā ʒiij. M. ft. Mist.

Take a wine-glass full early in the morning, two or three times a week.

FORM 10.—*Mist. Rhei Comp.*

From Guy's Pharmacopœia.

℞. Rhei pulv. ʒj. Sodæ Carb. ʒii. Pulv. Calumbæ ʒii. Aquæ Menth, Pip. Aquæ fontis āā ʒ vj. M. ft. Mist.

Take two table spoonfuls three times a day.

STOMACHICS AND TONICS.

It has already been observed that the various preparations of iron, several of which I annex, are by far the most valuable in these affections, but they cannot always be administered. If the digestive organs are much deranged, or if there be a proneness to diarrhœa, they will probably still more irritate the intestinal mucous membrane. Preliminary and cautious directions about the diet and the alvine secretions will be required, and when the tone of these organs is restored, and not till then, iron in some of its forms may be efficiently employed. Occasionally, when the general health has been long disordered and tympanitis has ensued, other remedial combinations will be required.

FORM 11.—*Pilulæ Ferri Ammon.*

℞. Ferri Ammon. ℈ ii.
Extr. Gent. C. Extr. Papav. Alb. āā gr. x.
Theriaci, qs. Ft. Pilulæ xii.

Take two pills three times a day.

FORM 12.—*Pilulæ Ferri cum Gentianâ.*

From Guy's Pharmacopœia.

℞. Ferri Sulphatis gr. i. Extracti Gentianæ Mollioris gr. iii. M. ft. Pilula.

Take one pill three times daily.

FORM 13.—*Pilulæ Ferri cum Quinæ Disulphate.*

℞. Ferri Sesquioxydi Quinæ Disulphatis āā ℈ i. Extr. Gentianæ Mollioris Extr. Papav. Alb. āā gr. x. Ol. Cassiæ gtt. vj. M. ft. Pilulæ xii.

Take two pills twice or three times a day.

FORM 14.—*Pilulæ Ferri cum Galbano.*

℞. Ferri Sesquioxydi,Pilularum Galbani Compositarum, āā gr. xxv. Extr. Humuli. gr. x. Ol. Cinnamon. gtt. viij. Theriaci qs. Ft. Pilulæ xii.

Take two pills twice or three times a day.

FORM 15.—*Pilulæ Ferri cum Myrrha.*

℞. Ferri Sesquioxydi, gr. ii.
Pulv. Gummi Myrrhæ, gr. iii.
Theriaci qs. ut fiat Pilula.

Take two pills three times a day.

TONICS WITH PURGATIVES.

FORM 16.—*Pilulæ Aloes cum Ferro.*

℞. Ferri Sesquioxydi gr. i. Extracti Aloes Aquosi. Extracti Gentianæ Mollioris āā gr. ii. Ol. Menthæ Piperitæ gtt. i. ut fiat Pilula.

Take two pills twice or three times a day.

FORM 17.—*Pilulæ Colocynthidis cum Ferro.*

℞. Ferri Sesquioxydi gr. xviii. Pilularum Galbani Compositarum Extracti Colocynthidis Compositi āā ℈i. Theriaci qs. ut fiant Pilulæ xii.

Take two pills once, twice, or more frequently during the day.

FORM 18.—*Pilulæ Rhei cum Ferro.*

℞. Pilularum Rhei Compositarum ℈ii.
Ferri Sesquioxodi ℈i.
Theriaci qs. ut fiant Pilulæ xii.

Take two pills once, twice, or more frequently during the day.

FORM 19.—*Pilulæ Zinci Compositæ.*

℞. Zinci Sulphatis gr. xii. Extracti Gentianæ ʒj. Ol. Anthemidis gtt. vj. ut fiant Pilulæ xii.

Take two pills once, twice, or more frequently during the day.

FORM 20.—*Mistura Ferri Aperiens.* No. 1.

℞. Ferri Sesquioxydi gr. x. Magnesiæ Sulphatis. Sodæ Sulphatis āā ʒiv. Aquæ destillatæ ℥vj. M. ft. Mistura.

Take two tablespoonfuls twice or three times daily.

FORM 21.—*Mist. Ferri Aperiens.* No. 2.

℞. Ferri Sulphatis gr. x.
Magnes. Sulph. ʒiii.
Acid Sulph. dil. ʒj.
Infus. Gent. Comp. Infus. Rosæ Comp. āā ℥iv. M. ft. Mist.

Take two tablespoonfuls twice or three times daily.

FORM 22.—*Mist. Ferri Muriatis.*

℞. Infus. Gentianæ Compositi ℥vij.
Syr. Aurantii ʒviij.
Tinct. Ferri Muriatis ♏ xl. M. ft. Mistura.

Take two tablespoonfuls twice or three times daily.

FORM 23.—*Mist. Quinæ Disulphatis.*

℞. Infus. Rosæ Compositi ℥v.
Tinct. Cardamomi Comp. ℥j.
Quinæ Disulphatis ℈i.
Acid. Sulph. dil. ♏x. M. ft. Mistura.

Take one or two tablespoonfuls twice or three times daily.

FORM 24.—*Mist. Ferri Iodidi.*

℞. Ferri Iodidi gr. xviii. Tinct. Calumbæ ℥j. Aquæ destillatæ ℥vij. M. ft. Mistura.

Take one or two tablespoonfuls, two or three times daily. A piece of iron wire should be kept in the phial, to prevent decomposition of the iodide of iron and precipitation of the sesquioxyde of iron.

CORDIALS, ANTISPASMODICS AND NARCOTICS.

Form 25.—*Mist. Ammoniæ Composita.*

℞. Ammoniæ Carbonatis ℈iss. Tinct. Castorei Sp. Lavandulæ Comp. āā ʒvj. Tinct. Hysocyami ʒi. vel Syrupi Papav. Alb. ʒiv. vel Morphiæ Acetatis gr. ½ vel. j. Aquæ Menthæ Piperitæ ℥vj. M. ft. Mist.

Take one tablespoonful three or four times daily. It may be unnecessary to add any of the narcotic ingredients.

Form 26.—*Mistura Castorei Composita.*

℞. Tinct. Castorei, ℥j. Sp. Lavandulæ Comp. ʒiv. Tinct. Camph. C. ʒiv. M. ft. Mistura.

Take half a teaspoonful every three or four hours in a table spoonful of water.

Form 27.—*Mistura Morphiæ Acetatis.*

℞. Morphiæ Acetatis gr. i. vel. ii.
Acid Acetici gtt. x.
Aquæ destillatæ ʒiii.
Tinct. Card. C. ʒi. M. ft. Mistura.

Take five or ten drops occasionally; frequently, if pain or spasm be urgent.

Form 28.—*Mistura Vini.*

From Guy's Pharmacopœia.

℞. Vini Albi, vel. Rubri, vel. Spiritus Gallici ℥vj. Ovorum Duorum Vitellos. Sacchari ℥fs. Olei Cinnamomi guttas iii. M. ft. Mistura.

Take two tablespoonfuls frequently during the day, if there be languor or faintness from debility,

Form 29.—*Mistura Cretæ Opiata.*

From Guy's Pharmacopœia.

℞. Pulveris Cretæ Comp. cum. Opio. ʒiij. Aquæ Menth. Pip. ℥ix. M. ft. Mistura.

Take two tablespoonfuls after every liquid motion.

FORM 30.—*Julepum Potassæ Carbonatis.*

From Guy's Pharmacopœia.

℞. Liquoris Potassæ Carbonatis ℥j. Aquæ Menthæ Viridis ℥xi. M. ft. Mistura.

Take one or two table spoonfuls in barley water or linseed tea, twice or three times daily.

FORM 31.—*Infusum Serpentariæ Compositum.*

From Guy's Pharmacopœia.

℞. Serpentariæ Contusæ, Contrajervæ Contusæ āā ℥v. Aquæ Ferventis ℥xvj. Post Macerationem in vase leviter clauso per duas horas, liquorem cola, et adde Tinct Serpentariæ ℥ij. M. ft. Mistura.

Take three table spoonfuls every four or six hours, occasionally adding to each dose if it be required

Liquor Ammon. Acet. ℥iv. vel.
Liq. Ammon. Sesquicarbonatis ♏xxx.

FORM 32.—*Pilula Moschi Composita.*

℞. Moschi gr. xl. Pulv. Zinzib. Pulv. Valerianæ āā gr. vj. Camphoræ gr. xii. Conservæ Rosæ qs. M. ft. pilulæ xii.

Take two pills every three or four hours.

FORM 33.—*Pilula Sedativa.*

℞. Pulv. Opii. gr. ¼. Camphoræ gr. iv. Cons. Rosar. qs. M. ft. pilula.

Take one pill every four or six hours.

NARCOTIC INJECTIONS AND SUPPOSITORIES.

FORM 34.—*Enema Antispasmodicum.*

℞. Liq. Opii. sedativ. ♏xxx. Infus. Valerianæ ℥i. Mucil. Acaciæ ℥ss. M. ft. Enema.

The injection to be passed into the bowel by a syringe night and morning.

FORM 35.—*Enema Contra Spasmas.*

From Dr. Copland.

℞. Camphoræ Rasæ gr. v.—x. Potassæ Nitratis ℥ii. Olei Olivæ ℥j. Tere simul, et adde Infus. Valerianæ Decocti Malvæ. C. āā ℥v. M. ft. Enema.

FORM 36.—*Enema Emolliens.*

From Dr. Copland.

℞. Flor. Anthemidis, Semin. Lini. Contus. āā ʒss. Aquæ fervid. ʒvj. Macera et cola; dein. adde Opii. gr. ii. iii. vel. vj.

Half this quantity to be used at a time.

FORM 37.—*Enema Belladonnæ.*

From Dr. Copland.

℞. Fol. Belladonnæ Exsic. gr. xii. Aquæ Fervid. ʒvj. M. ft. Enema.

In severe dysmenorrhœa, in retention of urine from spasm of the sphincter vesicæ, or spasm of the rectum.

FORM 38.—*Enema Olei Terebinthinæ*

From Guy's Pharmacopœia.

℞. Olei Terebinth ʒss. Ovi. unius Vitellum. Tere simul, et gradatim adde Decocti Hordei tepid ʒx.

To be used once a day or more frequently.

FORM 39.—*Enema Saponis Compositum.*

℞. Saponis Mollis ʒj. Pulv. Opii. gr. iii. vel. vj. Aquæ Ferventis ʒvj. M. ft. Enema.

Half or the whole quantity to be used once, twice, or three times daily.

FORM 40.—*Enema Tabaci.*

From Guy's Pharmacopœia.

℞. Tabaci ʒj. Aquæ Ferventis ʒxvj. Macera per sextam horæ partem et cola.

One quarter or half the quantity may be used, and if necessary the injection may be repeated in an hour.

FORM 41.—*Suppositorium Opii.*

℞. Pulv. Opii gr. ½ vel i. Sapon. Castiliensis gr. iii. M. ft. suppositorium.

The suppository to be used once, twice, or thrice daily.

FORM 42.—*Suppositorium Belladonnæ.*

℞. Extr. Belladonnæ gr. i. vel. ii. Saponis Castiliensis gr. iv. vel. iii. ft. Suppositorum.

To be used once or twice a day.

EMMENAGOGUES.

Form 43.

℞. Liq. Ammon. fort. ʒi. vel. ʒiss.
Lactis tepid ℥xvj. M. ft. Injectio vaginalis.

A third part to be passed into the vagina three times daily.

Form 44.—From Dr. Schonlein.

℞. Aloes Socotorin. gr. x. Mucilaginis Acaciæ ʒj. M. ft. Injectio iutestinalis.

The injection to be thrown into the rectum two or three times a day.

Form 45.

℞. Sinapis pulveris ʒii.
Aquæ Ferventis ℥xvj. M. ft. Injectio.

A third part to be passed into the vagina three times daily.

CHAPTER VI.

OF MENORRHAGIA.

DEFINITION.—*Inordinate Menstruation, both as to the frequency of return, and the amount of the secretion; in the majority of instances accompanied by direct loss from the uterine arteries.*

There are *two* forms of the disease.

First, Profuse Menstruation, either as to frequency of return, or the amount of the secretion, or both, without uterine bleeding.

Second, Profuse Menstruation accompanied by direct loss of blood from the uterine arteries, including *three* varieties.

a. Acute or active menorrhagia; occurring in the plethoric and robust.

b. Passive or chronic menorrhagia; the subjects of this variety being the delicate, hysterical, and exhausted females; and,

c. Congestive menorrhagia; generally met with at the middle or more advanced periods of life.

Profuse menstruation, either as to frequency of return or the amount of the secretion or both, without uterine bleeding.

History and Symptoms.—I may at once observe, that the hemorrhages of abortion, pregnancy, and parturition, and of the various organic diseases of the uterus do not come within the scope of this chapter; and to avoid a perplexing multiplication of names, I include profuse secretion of the catamenia, as a form of menorrhagia, as it is rarely a disease of long continuance, unaccompanied by bleeding directly from the uterine vessels. If we reflect on the large supply of blood constantly

furnished to the uterus during the greater part of life, and which is every month, for a functional purpose, still further augmented, it is not at all surprising that the limits of secretion are occasionally exceeded, and that, instead of a fluid only partially sanguineous, its usual product, pure blood, should be discharged from its vessels. Thus, so long as the discharge, even if it be profuse, is not blood, menstruation only exists; but, if the secretory function is either altogether or only partially superseded from excessive determination to the uterine vessels, their orifices may give way, and, as then they will permit blood to pass unchanged, menorrhagia is established.

Profuse menstruation and menorrhagia are neither confined to one class of females nor to one age. The young are less liable than those more advanced in life. The plethoric and robust less frequently than females of susceptible and feeble constitutions. Still, circumstances may induce these diseases in every class, the periods of reproduction and catamenial cessation being more obnoxious to them than all others—climate and peculiarity of system being criteria of importance. In northern and cold countries, the amount of menstrual secretion which is only natural here, would be regarded as excessive; and in hotter climates, what we consider profuse menstruation, would be strictly normal. In one individual, or in the female branches of a whole family, five, six, or seven ounces may be only a healthy amount of discharge, while in others such a quantity would be morbidly profuse. It follows then, that in the one case, health not weakness would accrue, while in the other, weakness not health would be the result.

The question, therefore, whether menstruation be healthy or inordinately profuse, will mainly depend on climate and idiosyncrasy, and especially on its constitutional effects. If it occur during pregnancy and lactation, it is unnatural and in excess; and on several occasions, in married women more especially, I have known it recur after long periods of suspension, so profusely, as to have been mistaken for abortion. The way in which profuse menstruation comes on is various. I have now a patient in whom, for some months, the discharge, without any admixture of coagula, has every second week set in suddenly and with a large gush; this discharge, with an interval of

only a few hours, being repeated for four, five, or six days. This individual is thirty-one years old, and unmarried; and so far as I can ascertain, is without the slightest evidence of structural disease; but she is anemiated and feeble. More frequently, however, the secretion is excessive from its continuance, lasting ten or twelve days, or is too early in its return. Young and single women are more prone to the latter; while married females, weakened by child-birth, undue lactation and leucorrhœa are obnoxious to the former variety. Leucorrhœa, indeed, has much to do with profuse menstruation, and is generally present, either in the catamenial intervals, or has existed prior to the excessive menstruation. Dewees states that in America he has scarcely ever known a case of genuine profuse menstruation. Such examples being almost invariably accompanied by the discharge of pure blood. I do not doubt the accuracy of this statement; but a similar statement of this country, and of my own experience, would not be correct, as instances, and not a few, have come under my own observation.

The symptoms are precisely those induced by a drain on the sanguineous system, varying in degree, according to the amount, the continuance, and the more or less frequent recurrence of the discharge. At first languor, inactivity, and sensations of weakness, rather than pain across the loins, are complained of; subsequently there is severe and almost constant aching in the back and lumbar region, coming round to the hips and front of the thighs, and to the lowest part of the abdomen. The face is pale, sometimes bleached and cadaverous. The patient suffers from nervous headache, the pain being often confined to one spot, tinnitus aurium, throbbing of the temples, frequent vertigo, and where the loss has been excessive, a sensation as though a clock were ticking in the head. The heart acts feebly on small quantities of blood, and there is in consequence chilliness of the surface and coldness both of the hands and feet. If the malady continue, and particularly if there be much leucorrhœa, the whole series of symptoms now described becomes more distressing. The disordered state of the brain, from a diminished supply of blood, sometimes closely resembles that arising from repletion. From ignorance or a disregard of this fact, giddiness, confusion, and a sensation of falling from

sudden movements, in turning or lifting the head, have excited a fear of apoplexy, and the bleeding and antiphlogistic treatment which have been practised, have ensured a still further aggravation of the original disease. Nor will the more serious indications dependent on excessive catamenial discharge, be confined to the brain alone. The lumbar and central pains become more decided, the headaches more agonizing, the derangement of the stomach and bowels is permanently increased, and there is almost constant pain, felt in some part of the course of the colon, affecting either the sides or centre of the abdomen. There is palpitation, and all the symptoms so graphically described by Dr. Addison. Occasionally, in some of the worst examples, there is confirmed diarrhœa. I have many times seen œdema, and in one case, where the patient had long resided in the East Indies, and was much exhausted by frequent abortions, there was general anasarca. Nervousness almost to insanity, melancholy and, according to some authors, epilepsy have resulted from the disease. So far as my observation has gone, a vaginal examination has revealed nothing beyond a soft, flabby condition of the vagina and uterus, leucorrhœa, and an os slightly more patulous than natural, but without tenderness or induration. The consequences of profuse menstruation, if protracted, are almost sufficiently evident from the detail of the symptoms. Dr. Marshall Hall, in his "Essay on Blood letting and its evils," has fully explained them. I may, however, remark that they are precisely of the same character as are produced by hemorrhage from any other part. Of course the probability of early cure will greatly depend on the severity and repetition of the attack. In the slighter cases little treatment is required, and the disease often subsides almost spontaneously; and even in the more aggravated examples, suitable and persevering treatment generally avails. A greater proneness to abortion, if the patient become pregnant, and a disposition to prolapse of the uterus and vagina, are results of the malady.

Causes.—Delicacy and debility of system and undue plethora conduce to the disease. The former frequently; the latter only in few instances. In all classes these causes may be brought into activity by cold, inordinate physical effort, and mental excitement. In married women, repeated labours and abortions,

and undue suckling, lay a foundation for the malady. In all, excessive use of the genital organs may lead to this or any other form of menorrhagia, and the disease has often had its origin in hemorrhage occurring after labour.

Diagnosis.—It is by no means difficult to distinguish this from the other forms of menorrhagia by the absence of coagula. If the discharge does not clot, it is still menstrual secretion; if on the contrary, like blood lost from other parts of the body, it separates into serum and crass amentum, it is no longer a case of simple catamenial excess. The freedom of the patient from organic uterine disease will be satisfactorily ascertained by a vaginal examination.

Treatment.—This will vary in females of different constitution, and in all there will be a marked distinction between the measures adopted during the discharge itself, and in the menstrual intervals. In *plethoric and robust* individuals, the larger amount of secretion is often salutary, and may be allowed to continue in many instances till it naturally subsides. Where treatment is necessary, moderate venesection may, a few days before the expected period, be practised; more frequently local depletion, by cupping on the loins, or leeches to the pudendum or perineum, and in some instances to the cervix uteri. When the loss is really excessive, the patient should be confined to the sofa or a mattress, strictly maintaining the recumbent posture, and the diet should be unstimulating and cold. Saline purgatives, with dilute acid and nitre, may always be exhibited; more rarely digitalis and superacetate of lead (vide formulæ). The apartment should be cool, the patient being lightly covered by bed clothes, and excitement of every kind must be carefully avoided. In some severe cases it may be necessary to apply cold locally: iced water, and ice itself, wrapped in bladders, are used with this view. It has been thought right to inject cold stimulating fluids into the vagina, and, in a very few examples, even into the uterus, and to plug this canal as far as the os. I do not say that such extreme measures are never demanded, but happily, if judicious treatment be early adopted, they will rarely be required.

In the *interval* of *menstruation*, a spare, unstimulating, and

only moderately nutritious diet, and frequent saline aperients, should be enjoined. Where there is decided plethora, shown by a red and flushed countenance, swimming in the head, and a full, hard and quick pulse, small and repeated bleedings, are beneficial. Daily exercise by walking or riding, although the former is to be preferred, and the avoidance of heated apartments and luxurious indulgences, will contribute to a healthier state of the system generally, and particularly of the uterus.

In *delicate*, *pallid*, and *feeble* patients, the disease must be treated differently. Here the excess of secretion, so far from being salutary, as it occasionally is in the plethoric and robust, is decidedly injurious, every return, by weakening the uterine capillaries, aggravating the anemia. Instead of depletion and antiphlogistic means, ammonia and small doses of the acetate of morphia, and the mistura vini of Guy's Pharmacopœia, are to be employed; and where the loss is large, no remedy will generally be more efficient in checking it, and in shortening the period of the flow, than the ergot. It may be given either in powder or tincture; of the former, five grains, and of the tincture, thirty drops every six or eight hours. Cold applications, and astringent injections, (vide formulæ) into the vagina have been already mentioned. Dewees recommends, for this purpose, sugar of lead and laudanum, and speaks highly of elixir of vitriol and laxatives. Mackintosh enjoins the use of an enema, containing a scruple of the sugar of lead. All the remedies are intended, either by lessening the activity of the general circulation, or by securing the contraction of the uterus, to diminish the quantity of blood sent to it, and thus to curtail the amount of secretion.

In the *interval* such measures must be employed as shall preclude the return of the malady. If it can be attributed to over lactation, excessive leucorrhœa, or frequent abortion, the child should be weaned, the leucorrhœa cured, and the risk of pregnancy for a time prevented by abstinence from intercourse. Chalybeate water, and mineral tonics, a residence by the sea, or at some of the various spas in this country or abroad, salt-water baths, of any kind, most agreeable to the patient, vaginal injections, sponging with cold salt-water all over the loins and

hypogastric region, are well calculated to relieve local weakness and to aid the more direct and powerful measures.

Second, Profuse Menstruation, accompanied by discharges of blood directly from the uterine vessels, including three varieties.

a. Acute or active menorrhagia; occurring principally in the plethoric and robust.

History and Symptoms.—This form of the disease is much less common than the passive and congestive varieties. It occurs most frequently in plethoric married women who live generously, and in whom the circulation is active. In such individuals exposure to cold or wet during menstruation, or any circumstance deranging their health, may induce fever, inordinate action of the heart, congestion and subsequent rupture of the uterine capillaries, and menorrhagia. I have also occasionally seen inflammatory and spasmodic menorrhagia, in young, florid, and robust unmarried girls: although these varieties are really more rare than the others, I believe they often exist unnoticed. The undue plethora, on which they mainly depend, is relieved by this larger periodical loss, and if it do not occur too often, this morbid state may be altogether cured by it. In healthy women also, a profuse catamenial discharge, even when it is attended by pain, is often long disregarded, such an event being generally viewed in a favorable light. It is not, therefore, till the loss is really excessive and somewhat alarming, or till it has induced marked debility and a pale, wan countenance, that medical aid is sought. In active menorrhagia there generally exist, immediately before the expected period, and occasionally for a few days prior to the flow, considerable tension and fulness within the pelvis, accompanied by a feeling of weight and throbbing in the uterus itself. The mammæ often sympathize, becoming tumid, hot and tender on pressure, and the external genitals are sometimes slightly swollen and painful. The pulse is quickened, there is oppression of the head, and often decided head-ache, with sympathetic fever. In this way the acute or active form of menorrhagia is ushered in and is throughout characterized by a predominance of inflammatory or spasmodic symptoms, or by a combination of both. Where inflammation is present, there will be fixed pain in the uterine region; a

hot dry skin, and a frequent hard and full pulse. Where spasm prevails, the pain will not be constant; but having continued a longer or shorter time, and often most severely, it will subside, and, after an interval, again recur with throes resembling the pains of labour. The discharge, too, is equally variable, ceasing for short periods, during the pain, and returning when it subsides. The pulse, during the spasm, is contracted, irritable, and quick; afterwards it becomes softer and slower, giving proof by this rapid change, of a state of system, neither of inflammation nor debility, but of irritation. The progress, duration, and severity of these attacks are extremely variable. Sometimes the discharge comes on and continues by gushes, and numerous coagula are expelled. The patient, in many instances, is thus relieved; the head-ache, tension, and pain in the uterine region are quickly diminished; the pulse is softer and less quick; the skin cooler and moist; and the remainder of the period is passed over with tolerable comfort. In the more protracted and aggravated cases, the discharge often continues for three, four, five, or six days, not without diminution, but still with such a proneness to excessive return, that the patient is compelled to avoid exertion, and to maintain, almost constantly, the recumbent position. On the subsidence of the flow, she is weak and exhausted, and several days elapse before she regains her usual freshness of countenance and strength of pulse. It is easy to mark the transition from this to the passive form of menorrhagia; for although, at first, the recurrence of the events just now described, may not seriously impair the health, yet after a time, the loss produces a marked impression on the system; the flow lasting longer, and the number of days between the catamenial periods being so diminished, that scarcely is one attack over, before another approaches. Thus the active and acute variety is merged in the passive form of the disease.

Causes.—From the history already given, it will be inferred that menorrhagia is generally dependent on morbid conditions of the constitution; although its causes may be accidental or local. Thus, while the active form is mainly associated with a plethoric habit, and does, under such circumstances, afford relief, it may still be frequently traced to morbid uterine activity and excitement, arising from local injuries, such as blows or falls,

sexual excesses, repeated abortions and leucorrhœa; irritation of the bladder and of the intestines generally, and especially of the rectum, from hardened fœces, hemorrhoids, worms, tenesmic purging, constant and even occasional constipation. Doubtless such causes will be rendered additionally injurious by too protracted and severe mental and physical efforts, rich living, heated apartments and soft beds, indolence and too much sleep.

Diagnosis.—The distinction between the active and inflammatory or spasmodic menorrhagia, and the passive form of the disease, is not always easily made. In the beginning there is little difficulty; but when, from frequent repetition, debility exists, we may err. Still the countenance, the pulse, and the "tout ensemble" of the patient are such that we shall not remain long in doubt. Nor must it be forgotten, that on a correct discrimination of these different conditions, the success of the treatment will greatly depend. It is true that active menorrhagia may co-exist with debility, the uterine vascularity and circulation being, from local causes, morbidly increased; but it would be a great mistake to treat this latter condition as we should that form of the malady where the discharge was dependent on general fulness and activity. If to aid the diagnosis the uterus be examined per vaginam, there will rarely be discovered any marked change in its volume or position, although I have noticed some fulness and heat about the cervix and body of the organ.

Treatment.—This is scarcely different from what has been already enjoined in profuse menstruation, occurring in plethoric individuals, vide page 132. But I may remark, that the employment of smart drastic purges, (vide formulæ), often does great good. The late Dr. Cholmeley, of Guy's, relied almost exclusively on their exhibition; and he has frequently, as he passed through the wards, pointed out cases entirely cured by these alone.

In *spasmodic menorrhagia*, to which I have already referred, the pulse is irritable and quick, not hard and full. The system is not plethoric, nor the pain constant, (vide cases); but it subsides and again recurs. Here bleeding, nitre, and digitalis, fail to relieve; and recourse must be had to antispasmodics, anodynes, and occasionally to alteratives. It is not always easy

at once to distinguish this form; but if antiphlogistic means have been tried unsuccessfully, the patient will often be cured by remedies of a different class. Dr. Gooch says, "that a lady labouring under spasmodic menorrhagia, went through the whole routine of antiphlogistic treatment without any benefit. I then gave her, he adds, one grain of ipecacuanha every hour; in eight hours she became nauseated and sick, and the discharge immediately ceased. This state of nausea was kept up for a day or two, and the discharge did not recur. When you have a case of menorrhagia, attended with a quick and irritable pulse, the pain subsiding and recurring, you may be certain that it arises from spasm or irritation, and that it will be relieved by antispasmodic remedies. The two best are ipecacuanha taken into the stomach, and assafœtida, with opium injected into the rectum. A grain of ipecacuanha is to be taken every hour till nausea is produced; which state must be maintained for a day or two, by repeating the same dose as frequently as may suffice for this purpose; and quiet local irritation in the uterus by injections of assafœtida and opium, by the enema antispasmodicum, form 34, 35, 36, 37, or 39, to be found at pages 125 and 126. There is a very marked connection between the pain and the discharge; for if you can relieve the one, the other will cease."

Nor must the treatment in the interval be disregarded; in profuse menstruation, unattended by real uterine hemorrhage, allusion has been pointedly made to its extreme importance. If the bleeding and the antiphlogistic regimen, practised as a period approaches, be exchanged, after the disease subsides, for nutritious diet and wine, the malady will not only continue, but it will become aggravated, and the loss, during menstruation, may be so large as to excite considerable apprehension. Many patients protract the menorrhagia by such error, and, by repeated discharges, the passive form is induced. A nice distinction is necessary here: thus, several times when I have thought that the loss has depended on debility, and I have unsuccessfully exhibited the ergot and tonics, I have gone back to the antiphlogistic plan, and have cured the patient. Nor let it be forgotten, that local depletion is sometimes most beneficial; especially in those cases where, in the absence of general plethora, there is local uterine fulness.

b. Passive or chronic menorrhagia; the subjects of this variety being the delicate, hysterical, and exhausted females.

History and Symptoms.—This is the most common form of menorrhagia, and approaches in frequency to chlorosis and amenorrhœa. A partial explanation may be found in the want of attention to early menstrual profusion, and in the too indiscriminate use of wine and other stimulants. The various degrees in which it exists, deserves notice. In some the excess may be so slight, as hardly to produce any morbid effect; and from this stage onward, to examples of marked hemorrhagic prostration, every shade of the complaint may be witnessed. I have in my recollection several instances where a fatal result seemed highly probable. An additional reason is thus supplied for careful investigation, prior to and during the treatment, by tonics and wine; and where such measures are determined on, their use must be watched, modified, and occasionally suspended. An attack of fever, or uterine congestion, will demonstrate the propriety of this admonition, and prove that the management should rest on principle, and that it must not be pursued merely as a matter of routine.

I need scarcely mention the class of women most liable to passive menorrhagia—those originally delicate, or who have become so from any of the causes already enumerated at the commencement of this chapter, and not the robust and plethoric are its subjects.

The symptoms are precisely those of morbidly profuse menstruation, fully pointed out at page 130.

Causes.—The same as in profuse menstruation.

Diagnosis.—The presence of clots in the discharge, or the stiffening of the linen by its flow, sufficiently explain the character of the disease. If the uterus be examined, it will rarely be found increased in size; but its cervix and os, as well as the vagina, are generally soft, the former having lost its close, welted feel, and the whole being bathed in leucorrhœal discharge. Such an inquiry will also reveal any structural lesion of these parts, should it exist.

Prognosis.—It may perhaps be unnecessary to say much on this point, as a fatal result is exceedingly rare; but, as the long continuance of the malady may induce dropsies of various ca-

vities, and may call into play morbid tendencies about other organs, a too confident opinion should not be given. Our anticipations of cure should spring not only from the tractable character of the malady, but from a conviction that the patient will strictly and perseveringly carry out our measures of relief.

Treatment.—Reference must be made to page 132, where the means generally successful in arresting excessive menstrual flow are enumerated. Rest in the recumbent posture, during and previously to the attack, either in bed on a mattress, or on the sofa, is indispensable. Without it the best devised treatment will fail. At first, patients disregard the injunction; but the continuance of the discharge, increasing debility, and the attendant evils, compel obedience. Astringent injections should rarely be used during the few first days of the menstrual period, as they often produce uterine spasm; but when coagula are passed, either alone or mixed with the catamenial fluid, the secretory function is either partially or entirely suspended, and injections may then be highly beneficial. (vide formulæ). Some patients derive little or no advantage from them—others use them so partially, as to preclude any probability of benefit—while not a few ascribe pain, an unusual symptom in passive menorrhagia, and increased discharge to their exhibition. It is essential that the patient lie, when the injection is thrown into the vagina, that the pelvis be raised by placing a sofa-cushion under the hips, so that the fluid may easily reach the upper extremity of this canal, and that whatever quantity be injected, it shall be retained for ten or fifteen minutes in direct apposition with the parts. To effect this, the nurse should make firm pressure on the vaginal orifice by a napkin accurately applied. Where these conditions are complied with, and where occasionally, in susceptible and irritable women, the injections are slightly warmed, so as to prevent the probability of the occurrence of uterine spasm and pain, I know practically that great good will generally result from their administration.

But life is occasionally well nigh destroyed by excessive menorrhagic loss—the patient being reduced to the same state as by uterine hemorrhage after labour. If the practitioner has reason, from its previous occurrence, to apprehend a renewed visitation of this kind, every preventive measure must be adopted.

Not only must the treatment in the interval be carefully followed out, as directed at pages 133 and 134, but absolute rest must be enjoined for several days prior to the expected catamenial return; sexual excitement, physical exertion, stimuli likely to affect the vascular system and the uterus, and intestinal constipation, must all be carefully avoided. During the flow, if alarming loss of blood seem to be approaching, the ergot and opium, (vide formulæ) injections of cold water and astringent lotions into the rectum, and, above all, plugging the vagina, as far as the os, must be practised. Soft *dry* tow, slowly introduced in small quantities, till the passage is entirely filled, forms the best tampon or plug, and it may be allowed to remain unchanged for twenty-four or thirty hours. The patient will probably object to such a remedy, and suffer slightly from its use; but neither of these circumstances are sufficient to justify the practitioner in giving it up. A silk handkerchief, lint, or linen, may be used, but they must be dry. If wet or saturated with moisture, their introduction is painful and difficult: dry soft tow, in small pieces, is certainly far better. I have seen two cases, where if the apparatus for transfusion had been within reach, I should have used it. Both patients, however, gradually recovered. It may be urged, that injections of cold or medicated water into the uterine cavity, would be important. I confess, without knowing that the mucous lining was healthy, the fear of subsequent inflammation would, with me, generally prevent their employment. I am, however, convinced that, in excessive menorrhagia, plugging is not sufficiently often resorted to. It need scarcely be enjoined, that if the patient is reduced to a very low ebb, or if there be prolonged and profound syncope, she must be moved with the greatest care. In the syncope following excessive puerperal bleedings, such precaution is all important, as asphyxia might result from its non-observance. It is scarcely less necessary in the exhaustion produced by excessive menorrhagia.

c. Congestive menorrhagia, generally met with at the middle or more advanced periods of life.

History and Symptoms.—On this form of the malady enough attention has not been bestowed. And yet, it differs so much from the others, that it is a matter of surprise that its peculia-

rities should have been only slightly noticed. It continues long, occasionally for several years, (vide cases) and frequently in alarming excess. It is often preceded and followed by large watery and leucorrhœal discharges, and pain in the uterine and lumbar regions is a common accompaniment. Its sympathetic effects on the brain, lungs, and heart, are occasionally severe; and, where the disease has continued long, there is generally coldness of hands and feet, a feeble and quick pulse, and an anxious pallid and sunken countenance. The alterations in the size and feel of the uterus, which form a part of the disease, cannot, at this period of life, be recognized, without some alarm. The malady is not confined to one class of women. The plethoric are not, as far as I know, more prone to it than the debilitated and irritable. I have rarely, if ever seen it, before thirty eight or forty years of age; but I have several times met with modified attacks, independently of organic complications, after menstruation might have been supposed to have ceased.

In the milder instances, the symptoms already described, terminate after a more or less protracted continuance in the entire cessation of the function; but in other and more protracted examples, the symptoms are so extreme, as to excite real apprehension. The recurrence of the bleedings is uncertain, although in general, a catamenial period will be partially observed. Occasionally the loss continues for many weeks or months, without any complete cessation: the only appreciable change consisting in a diminished flow, or the discharge becomes either aqueous or leucorrhœal, and perhaps slightly or offensively odorous. In many cases there will, at the expiration of a fortnight, or midway in the interval, be a peculiar bearing, acute pain in the lower part of the uterus. Several of my patients have noted this pain very accurately, and have correctly regarded it as indicative of a repetition of the menorrhagia. This symptom has occurred too often, to allow me to doubt, that it is in some way connected with the affection. Dr. Churchill mentions that in most, if not all the cases he has seen, there was considerable dysuria, and that, in several, it was necessary for the patient to lie down before the bladder could be completely evacuated. Irritation about the neck of this viscus, extending along the urethra to

its orifice, is common; but the dysuria, especially to the extent related above, I have rarely met with. Nor must it be forgotten that after these morbid occurrences have repeatedly taken place, and when every thought of pregnancy has been given up, conception has occurred. Such an event, for a time at least, and perhaps permanently, cures the affection. It is therefore important to bear in mind its possibility. I have known two examples of healthy pregnancy under these circumstances, after an interval of five or six years from the former accouchements. Head-ache, embarrassed respiration, bleeding from the nose, sometimes excessive, dyspepsia, impaired appetite, and emaciation are frequent concomitants: after all, these various mischiefs may only be temporary. The function, on whose morbid condition they all depend, is itself waning, and a few more months may secure its permanent suspension. Thus, sometimes, even with only domestic care, and often with proper medical treatment, the affection declines, and eventually the patient regains more health than she has for a long time enjoyed. But this is not always so. Unhappily there are cases where the hemorrhages, and their attendant evils, continue for many months, even for several years, inducing a strong belief that organic disease must really exist; nor must we forget that malignant changes do, although rarely, develope themselves. Even in their absence, life is, now and then, eventually destroyed by exhaustion, arising from the repeated bleedings, by phthisis, or by dropsies of some of the great serous cavities Anxious inquiry is directed to the probable time of final cessation, and it is often asked, how long these bleedings may continue when they are not connected with structural disease? In many instances, the function ceases at forty-four or five; in more, at forty-seven, eight, or fifty; in a few, at a much more advanced period, and in fewer still, at thirty or between thirty and forty years of age. I confess my inability to answer the latter question; but I have met with more than several instances, where hemorrhages, alarming in degree, have continued for twelve, eighteen, twenty-four, and forty-eight months, and have ultimately declined, and the sufferer has regained good health.

It is right in every protracted hemorrhage from the uterus to *examine*. By this alone, and I allow that even then we

frequently fail, can we expect to ascertain whether there be polypus, a submucous tumour, or so much increased bulk as to render the existence of organic lesion highly probable. In the majority of the examples of congestive menorrhagia, I believe that increased uterine bulk, fulness of the cervix, and openness of the os, constitute the whole of the diseased change.

Pathology.—Congestion of the uterine vessels is the explanatory cause of these bleedings. In some instances, there is an unusual and excessive accumulation of blood, and then it is not at all improbable that some of the branches of the uterine arteries, ramifying on the mucous membrane, give way. In submucous tumour of the womb, these vessels are abnormally large, and are by their rupture the source of frequent hemorrhage.

On the whole, the symptoms are indicative of slow progress, and lead to the conclusion that the disease is of the passive kind. The affection is probably dependent on the peculiarity of age—the period having arrived when this most important function is about to cease. I have already noticed its supposed frequent complication with organic disease: nor is it possible not to feel anxiety on this point, when we remember that vessels and tissues in a state of nearly constant congestion, become hypertrophied, and liable to the invasion of structural and malignant change.

Diagnosis.—It must not be forgotten that losses of blood occur in connection with other states of the uterus than the various forms of menorrhagia. Approaching abortion is often supposed to be menorrhagia; nor is the mistake corrected, till the ovum is expelled, and the hemorrhage ceases. I lately saw a case, and it is unnecessary to mention the more common occurrences of this kind, where, from the emaciation, bleached countenance, and exhaustion, I had formed a most unfavourable opinion, the flooding having continued, although not excessively, for nearly six months. On examination, I found the uterus large, and the lips of the uterine aperture swollen, but not patulous. The idea of pregnancy as the patient was forty-four, and had not borne children for several years, did not occur to me. I prescribed some medicine containing ergot, and I gave a doubtful opinion. After taking three doses, she expelled a

blighted ovum, and in a few months entirely, although difficultly, recovered her health.

"I was called," says Dr. Gooch, "in the earliest part of my practice, to a lady who had for a considerable time a dropping from the uterus, which had produced a bleached, cadaverous countenance, cold hands and feet, and great debility. On examination, I found at the upper part of the vagina a little long projecting tumour, which I thought might possibly be a peculiar formation of the cervix uteri. I was afterwards called in great haste to see her, and, on my entering the bed-room, she said there was something coming away; and, on examination, I found the leg of a fœtus in the vagina. I speedily delivered her of a fœtus of about four months growth; the placenta soon followed, and the hemorrhage ceased. This was a blunder of mine; for that which I supposed to be the cervix uteri, was no other than the foot of the fœtus, just beginning to protrude through the os tincæ."

The diagnosis of menorrhagia from pregnancy is important: but not so important, nor so difficult, as its distinction from some of the more concealed organic diseases. Corroding ulcer, cauliflower excrescence of the os, ulcerated carcinoma of the cervix and polypus, descended into the vagina, are easily made out by a common examination; but whether protracted, frequently recurring, and dangerous hœmorrhages arise from uterine congestion, or from submucous tumour, a polypus yet retained in the uterine cavity, or from organic disease of the mucous lining itself, is by no means easy. Often in the course of these hemorrhages, there is so much pain, such apparent traces of malignant disease about the face, so much emaciation, and such very trivial and temporary benefit from every remedy used, that in despair one believes, that it must be a malignant affection, (vide case). After a time, however, and perhaps unexpectedly, the bleedings partially cease, the pain diminishes, and the patient's health is improved. A vaginal examination reveals nothing beyond what has been already mentioned, and hope is again encouraged. Thus a favourable diagnosis will mainly depend on the healthiness of the uterus, so far as the finger can examine its structure—on the absence of progressive and marked emaciation—on diminishing,

at least not increasing, hemorrhages; on the general concurrence of the bleedings with the menstrual periods; and on the lessened volume of the uterus during the menstrual intervals. Other circumstances, which cannot be accurately expressed, but which form a part of that unwritten and incommunicable tact, acquired by all observant men, will aid the judgment. A strumous constitution, glandular tumours in other parts, hard tumours of the fundus or body of the uterus, broad ligaments or ovaries, increasing hemorrhages and uterine pain, a gradual giving way of health, and the absence of any beneficial effect from remedies, point to an unfavourable termination, and lead to the conviction that there is beyond the reach of an examination, by the finger or speculum, some malignant structural change.

Prognosis.—Dr. Churchill says, "of all the cases I have seen, none have proved fatal, either directly or indirectly." This is more than I can affirm. Happily the malady is generally cured, or perhaps it would be more correct to say, that as the catamenial function ceases the bleedings cease also. If there be no latent tendency to malignant or pulmonary disease, it is not likely that such will occur. And it must be allowed, that women do sustain excessive and long continued uterine hemorrhages, without a fatal result. But let it not be supposed that these formidable losses do not seriously injure the health. They deprive the body of that blood by which its solid structures are nourished, and thus lay the foundation of uterine softening. There is also a probability of dropsy, and the patient may be destroyed by phthisis.

Treatment.—So much has been already said, that it is scarcely necessary to enlarge here. In the hemorrhagic intervals, if there be local or general plethora, a small bleeding, cupping on the loins, leeches to the anus or vulva; and if there be fulness, heat, and pain about the cervix uteri, scarification, as already recommended, may be practised. Sexual intercourse and stimulants, mental excitement and physical effort, must be avoided for ten or twelve days before the periodical returns. When there is increasing pallor, œdema, threatened dropsies, softening of the cervix, and aggravated debility,—sea air, a mild but nutritious diet, consisting of animal food and milk, or malt liquor, must be enjoined. Where there is universal coldness of surface, espe-

cially of the extremities, frictions, by stimulating embrocations, the flesh-brush, and horse-hair gloves, the wearing of flannel, and worsted stockings, are indicated. The salt hip-bath, the local salt shower-bath, applied night and morning, by a common garden watering pot, over the hypogastric and lumbar regions, are often advantageous. Nor is the injection of cold water, once or twice a day, into the rectum, to be forgotten. Astringent vaginal injections are deservedly relied on, especially if carefully administered, as already urged, (page 139) during the intervals. Still there are cases, and occasionally I meet with a good many, where cold injections cannot be borne. Local fulness, excitement and pain, follow their use, and sometimes I have attributed to their employment an earlier and larger return of the hemorrhage. They are most beneficial where there is copious leucorrhœa, and from the cure of this morbid secretion, good may be invariably anticipated. It is to be remembered, that the unmarried are liable to congestive menorrhagia, and I have often thought that their cure was more difficult and protracted, and their hemorrhages larger, than where many children had been borne; but I am not prepared to give a positive opinion. During an attack, the patient should lie on a hard mattress, be kept perfectly quiet, covered lightly with bed clothes, and have warmth applied to the feet and legs; hot bottles, or mustard poultices may be used for this purpose. Her drink must be unstimulating and cold, except where there is syncope, and then wine in small quantities may be given.

I have for several years tried the ergot in these cases, and I think highly of its efficacy; but there are more than a few instances in which it has entirely failed, and several in which it has induced spasm, and increased bleeding. I have two patients who, for these reasons, always request that it may not be used. I prefer the tincture to the powder, and I give thirty drops for a dose. Frequently lead and opium, turpentine, muriated iron and opium, (vide formulæ) have proved serviceable. Cold to the lower abdomen and genitals, and particularly plugging the vagina with soft tow, where the loss is excessive, are effective remedies.

Few cases will be introduced; very few of every-day occurrence. But where the history and symptoms, the patho-

logy or treatment of menorrhagia require illustration, I shall not scruple, as briefly as possible, to confirm the text by their insertion.

Case 29.

SPASMODIC MENORRHAGIA.

July 24, 1836. I visited Mrs. ——, æt. 37, a widow, residing at Walworth, and under my care as an out-patient of Guy's Hospital. She has never borne children, and is of spare habit, but neither weak nor emaciated. She has been menorrhagic for several years, and habitually suffers from dyspepsia, earning a livelihood by close application to her needle. Menstruation occurred two days since, and for the last twenty-four hours, the paroxysms of pain and spasm about the uterus have been very severe. Much blood has been lost by gushes, and many large clots have been expelled. The spasm still continues, and on my visit I found the pulse quick (130) and irritable, but neither full nor hard. She is chill and faint; the countenance pallid and anxious; has had no sleep since the commencement of the attack, although there have been rather long intervals free from pain. At the commencement of the disease, three years since, she was bled and purged, but without any other than an injurious effect. Urine scanty and high coloured.

I ordered hot poppy fomentations to the abdomen, and the following mixture.

℞. Pulv. Ipecac. rad. ℈i. Tinct. Camph. C. ʒii. Mist. Camph. ʒxiv.

M. ft. Mistura. Take one teaspoonful every hour till nausea is produced.

In the evening she was considerably relieved; had taken six doses of the ipecacuanha mixture, and was completely nauseated. The pain occurred at more distant intervals, and the flooding had nearly ceased. In a few days the menorrhagia passed off, and she recovered her accustomed health. For several subsequent periods she pursued this plan; and when I saw her six months afterwards, she informed me, that the menstruation was performed so naturally, that she had entirely laid aside the use of the medicine.

There are numerous examples of spasmodic menorrhagia, especially in crowded manufacturing towns. The treatment by bleeding and purging is too indiscriminately adopted; nor is it, at least very often, till the patient's health is decidedly injured, that a different plan is practised. I have repeatedly cured this form by nauseating and anodyne remedies.

Case 30.

CONGESTIVE MENORRHAGIA, NEARLY FATAL.

In 1833, I was asked by Mr. Rendle of Southwark, formerly a clinical clerk of Guy's Hospital, to see the following case:—

Mrs. —— æt. 42, of spare habit, the mother of several children, and compelled to work hard as a washerwoman, has long suffered from menorrhagia,—dating its commencement from the birth of her last child, now three years old. At times the bleedings have been less in quantity, but they have never entirely ceased. Till lately, the menstrual period has been nearly observed; but recently, the losses have occurred at very short intervals, and she has been weakened and emaciated by their excess. Two days before my visit, menstruation commenced, with sensations of fulness and weight in the hypogastric region. For twenty-four hours there was no hemorrhage; but soon afterwards, large coagula passed, and an immense quantity of blood was lost. On our entrance, we feared she was dying. The pallor and coldness of the face and extremities, the scarcely perceptible pulse and breathing, and the clammy perspiration of the surface, betokened the greatest danger. We stood over the bed, doubtful whether she would live or die. We feared to move her, least fatal asphyxia should ensue; nor was it till we had waited several minutes, and she had opened her eyes and breathed more distinctly, that we dared to give some ergot and brandy. At this moment, I wished to transfuse, and had the apparatus been at hand, we should certainly have injected blood into her veins. As this could not be done, we repeated the ergot and brandy (vide formulæ) several times, and the vagina was plugged. No further bleeding occurred, but the recovery was very slow.

Case 31.

PROTRACTED MENORRHAGIA, TERMINATING FATALLY, BY PHTHISIS AND ASCITES.

Mrs. T., æt. 45, an out-patient of Guy's,—is the mother of eight children, and of dark complexion.

July 10, 1835. Has suffered from menorrhagia for three years, remedies having hitherto done little, if any good. The bleedings generally occur in connection with menstruation, although floodings in the intervals have not been uncommon. Always and correctly prognosticates an attack, if she has, about the middle of the period, acute pain low down in the hypogastric region, with sensations of weight and fulness about the uterus. Pulse 110, and compressible; countenance pallid and sunken; bowels easily and frequently purged; urine scanty; perspiration frequent; marital intercourse, which rarely occurs, is often followed by bleeding.

℞. Secalis Cornuti ℈ii. Morphiæ Acetat. gr. iss. Ferri Sulph. gr. xi. Cons. Rosæ qs.

M. ft. pilulæ xxiv. Take one pill three times daily.

To use the tepid or cold hip-bath every evening.

Two ounces of the compound alum injection three times daily, and to abstain from intercourse.

July 30. Has had one excessive flooding since the last report; stopped by cold, freely applied over the abdomen and loins, and cold alum wash injected into the vagina. There is much leucorrhœa, and frequent cough; countenance pale; more emaciated and increasingly weak. Cont. remedia.

August 10. No better; leucorrhœa still continues; pulse 120; feverish at night, with perspiration in the morning; complains of some, although slight pain, about the cervix uteri. To use an injection of sulphate of iron (vide formulæ.)

℞. Tinct. Ferri Muriat. Tinct. Secalis Cornuti. Tinct. Hyoscyami, āā ʒiv. M. ft. Mistura.

Take thirty drops three times daily, in a teaspoonful of port wine.

September 20. To-day she states that there is, and has been for the last few weeks, a constant sanguineous discharge, not by gushes, but scarcely by more than a few drops at a time. Her legs pit on pressure, and they are œdematous and cold: urine scanty and high coloured; breathing short, and often difficult; leucorrhœa scarcely diminished;

cough short, hacking, and frequent, with a continuance of the morning perspirations. Her countenance has the sallow leaden hue, pointed out by Sir James Clark, in his invaluable practical Work on Consumption, as so characteristic of tuberculous cachexia, acquired in mature life. Is to go into Wiltshire, her native county, and to follow out the plan before pursued, and so fully pointed out in the preceding page.

On examination I found the os patulous and large, the neck of the uterus soft, almost spongy, and entirely devoid of its firm, glandular feel. I carried my finger, without difficulty, into the uterine cavity; but I could detect no hard nor soft tumour. The uterus is not greatly increased in size, nor did any bleeding follow this inquiry.

November 15. Her mother informed me that she had died about a month previously, from dropsy and consumption, the bleedings continuing to the last. She was exceedingly emaciated. No examination was made after death.

This case scarcely requires any comment. It is interesting, because, happily, it is rare; and the fatal pulmonary mischief is clearly attributable to the repeated bleedings. It cannot be said that there was no organic uterine change; but it may, I think, be fairly assumed, that the structural degeneration of the reproductive organs was not malignant. Such softening is, I believe, a frequent accompaniment of very protracted congestive menorrhagia, and points to the propriety of improving the health, and of restraining the hemorrhage, the former condition being mainly dependent on the latter.

Case 32.

CONGESTIVE MENORRHAGIA AND PREGNANCY.

I had frequent occasion to see Mrs. ——, æt. 42, during the years 1837, 1838, 1839, and several times in 1840. This lady was thirty-eight years old in 1836, had been married eighteen years, and was the mother of many children. Her health had been good during the whole of her married life, with the exception of slight illnesses connected with her various confinements. In 1837 she first suffered from menorrhagia, and in that, and the following year, the discharge was often so excessive as to alarm her. Once I happened to be present, and certainly nearly two pints of blood were lost by gush in a few minutes. These attacks induced syncope and prostration at the time, and in the menstrual intervals there was pallor, weakness, and some emaciation.

Tow, for the purpose of plugging the vagina, has often been in readiness; but her unconquerable aversion to this valuable remedy, has hitherto most improperly been allowed to prevent its use. The acute bearing pain, low down in the uterus, to which I have already alluded, invariably occurred about the middle of the interval, and was the certain precursor of a coming hemorrhage. Nor as a premonitory condition, were there ever absent, feelings of weight, tension, and distressing fulness in the lower part of the pelvis. Several times I satisfied myself by examination both by the rectum and vagina, that the uterus was really larger, and congested prior to menstruation.

During the attacks, astringent vaginal injections, cold sponging over the loins, and pudendum, were freely employed. The ergot, in its various forms, the acetate of lead and acids, opium and turpentine, were all given. The recumbent position was long and strictly observed.

In the intervals, tonics, stomachics, sea air and bathing, local salt-water shower baths, good diet, rest, and as much quiet as could be obtained, were insisted on.

I am often very anxious about this case. There is emaciation, a sallow, wan countenance, impaired appetite, and great debility. Leucorrhœa is always present during the menorrhagic intervals, and it is sometimes slightly sanguineous and offensive. I have repeatedly examined during the last two years. The os is constantly patulous, its lips swollen, and, together with the cervix, soft and flabby. Still, there has never been either hardness, fissure, or abrasion.

After the continuance of the menorrhagia for more than three years, and when all idea of pregnancy had been abandoned, conception occurred. Over fatigue, the patient being ignorant of her real state, produced abortion at the end of the third month (July 1840). The ovum was quite healthy.

This is one of a large class of cases. I need not say that they are perplexing and difficult. The protraction and the debility induced by the repeated hemorrhages, fully justify such a conclusion. But additional confirmation of the opinion is afforded by the possibility that structural malignant change or dropsies, or exhaustion, may destroy the patient. Congestive menorrhagia may, I think, more frequently than is supposed, be attributed to the avoidance of complete sexual intercourse, and to consequent derangement and congestion of the ovaria and uterus. This abstinence is dangerously practised to avoid the

risk of adding to the number of a family, already thought to be too numerous for the pecuniary means of its principal supporter. But this is obviously a subject on which one cannot, with propriety, enlarge.

Case 33.

CONGESTIVE MENORRHAGIA—DIAGNOSIS DIFFICULT.

Mrs. ——, æt. 52, has not been married, is tall, and of large make. Has always resided in or near London. Up to the time of her present illness, has enjoyed unbroken health, and has been remarkable for muscular strength and activity. In November, 1836, when she was 48 years old, menstruation first became irregular, returning very profusely after longer intervals. Sometimes she was alarmed by the numerous and large coagula which passed, and by syncope; but she quickly rallied, and as she believed such occurrences, if not natural, were very common, she refused to adopt any medical plan, or to take any particular care. I frequently saw her during these hemorrhages; she was chill, prostrate and faint; but, after their subsidence, management was at end.

In August, 1838, almost two years after the commencement of the malady, there was emaciation, frequent hot flushes, and distress from heat in any form; a blanched skin, a quick vibrating pulse, and slight uterine pain. The patient could not walk so far, nor attend so energetically to her domestic duties.

Prior to the occurrence of the menorrhagic attacks, Mrs. ——, always complained of weight, fulness and tension in the uterine region, of pressure on the bladder and dysuria, and occasionally of pain about the neck of the womb. In November, 1838, I was allowed to examine both by the vagina and rectum. The body of the uterus was heavier and larger than natural; the os somewhat patulous, and the cervix swollen. I did not use the speculum, as the hymen was firm, and prevented even the easy passage of the finger; but I am confident there was no abrasion. All the parts were unusually soft and flabby, but neither pain nor bleeding followed the inquiry.

From 1838 to August, 1840, the course of this disease has been perplexing and unsatisfactory.

In March and April, 1838, Sir James Clark was consulted—at that time her state was as follows: the general surface is pale and exsanguined; the least excitement quickens the pulse, and produces flushings of heat. The emaciation slowly increases—there is œdema in various parts of the body, but no anasarca. Only slight uterine pain is complained of; but she has

the appearance of a patient suffering from malignant disease. A continuation of the treatment was enjoined.

The remedies have been the ergot in every form and dose; turpentine; the acetate of lead; acids and refrigerants; benzoin; opium; the various astringent, stimulant, and anodyne injections; country and sea air; spare and nutritious diet; leeches and small bleedings; easy exercise in a carriage, and the recumbent position. But only transient benefit has been derived. Often, in the last two years, I have given it up as a lost case, as there has never been a day during that time, without either sanguineous, sero-mucous or muco-purulent discharge; but after I have arrived at this conclusion, for a week, perhaps for several, the discharges decline, there is no uterine pain, there is a rally of the strength; she becomes cheerful, walks about the garden, sleeps better, enjoys her food, and gathers flesh; thus leading one to doubt, whether this may not be a very rare example of protracted, congestive menorrhagia, without any more than the usual non-malignant changes of structure.

Several circumstances deserve attention in this case. The patient is often entirely free from sanguineous loss for three or four weeks; but its place is always supplied by copious discharges of sero-mucous, not aqueous, and occasionally of muco-purulent or purulent fluid; generally as many as eight, nine, and ten napkins are used daily, and when the sanguineous discharge is present, many more are required, so that it is impossible not to wonder how these large and constant drains are borne.

The hemorrhages are invariably preceded by sensations of uterine congestion, and several times a clot has been passed entire, presenting an accurate cast of the uterine cavity. From its comparatively small size, and unaltered form, an inference has been drawn that this viscus is still of nearly normal volume.

There is scarcely any pain; none of a severe or permanent kind: an anodyne has never been required for its alleviation. An examination made a few days since (August 1840), both by the rectum and vagina, reveals no traces of disorganization. The os is patulous, and its edges are large and swollen; the cervix too is more bulky, but beyond these changes I can discover nothing anormal.

I have dwelt at some length on this case, because I know it is but of rare occurrence. A positive opinion cannot be given. My own leans to its malignant character. The emaciation, the repeated bleedings, the constancy of the serous, the muco serous, and purulent discharges, the gradual diminution of strength, and the trivial benefit derived from remedies, all point to dis-

ease of this kind. Still no care, no remedy at all likely to exert beneficial controul, should be withheld. The patient ought to be encouraged, and especially on the ground, that her long struggle may terminate in a stationary, inactive condition of the disease, and perhaps in recovery.

I could add several examples of protracted congestive menorrhagia, where the congestion was consequent on a *loaded condition of the bowels and luxurious living*. To these, as causes, allusion has been already made. In one instance, where the patient was middle-aged, and the landlady of an inn, nearly constant hepatic and intestinal derangement, as well as increased bulk of the liver, was thus induced. The menorrhagic attacks were most frightful, and on not a few occasions, there was great difficulty in rousing her from the consequent syncope. The late Dr. Cholmeley visited her, and stated that she might be cured by spare diet and purgatives. The importance of these measures was enforced, and in a few months the hemorrhages were prevented. I mention this case especially, to show the value of purgatives prior to the anticipated return of the menstrual period. I often ordered for this patient, after the disease had continued some time, a full dose of castor oil, twenty-four hours before the expected commencement of the discharge, and with the best results. Dr. Locock observes, "that in examples of this kind of menorrhagia, the next return of menstruation may be rendered comparatively trifling, by the use of a full purgation about twenty-four hours before the period, when that can be ascertained, avoiding every medicine of a drastic, stimulating nature." He also adds, thus confirming what I have just advanced, "that chronic (congestive) menorrhagia is occasionally connected with organic or functional disease of the hepatic system; and when it is recollected how notoriously inattentive women are to the state of their bowels, and what enormous masses of fœcal matter are allowed to take place, it may easily be supposed to what degree the abdominal circulation must become obstructed, and how powerfully such obstruction must act in producing congestion of the pelvic viscera."

In conclusion, I think it right to observe, that I have twice witnessed, in most extreme cases, the beneficial effects of injecting into the uterine cavity a small quantity of the *spirit of turpen-*

tine. It will not be supposed, after what I have heretofore said, that I advise this procedure on slight grounds. I believe such injections to be very certain but highly hazardous remedies, and they never ought to be employed except as *derniers ressorts.* The uterus has also been injected with a small quantity of lead and alum in solution; and the narrator of the treatment says, "the remedy is a dangerous one, for in two instances it was followed by vomiting, uterine inflammation, and death." At page 243, vol. II. of Guy's Hospital Reports, and at page 75 of the present work, additional cases and observations will be found.

I first employed the turpentine in a menorrhagia where every previous remedy had proved ineffectual. The case is as follows:— Mrs. G., forty-five years of age, and habitually intemperate, requested me to give her some medicine to prevent hemorrhage from the womb. She was large, and rather bloated, but still capable of great exertion. She was married, was the mother of several living children, and had miscarried a few months previously. I remonstrated with her on the excesses to which she acknowledged she was prone, and fully explained to her, that they were the source of the bleedings. The uterus was large and soft, and the cervix was full and flabby; but although the os was sufficiently patulous to permit the entrance of the finger, I could not detect further structural change. An examination by the rectum was also made. She lived in my immediate neighbourhood, and as I had frequent opportunities of seeing her, she adopted for a time the prescribed plan and diet. By purging during the intervals, and especially before the period, the losses were for a few months greatly diminished. At length she thought herself so well, as to be no longer under the necessity to adopt any plan which curtailed her usual indulgences. I lost sight of her for some months, and I know during the interval, that highly seasoned food, and large quantities of ale and wine were daily taken. One evening, I was requested in haste to visit her, and I found her almost dead from uterine bleeding. Her husband informed me, that since my last attendance, she had very frequently lost large quantities of blood, and he had thought that on several occasions she must have died, but that hitherto she had always slowly rallied. Brandy and ammonia and ergot, restored animation, but she had not said many words

before a fresh gush again induced alarming syncope. Cold water was dashed over the face, ammonia was applied to her nostrils by a camel-hair pencil, and after a very lengthened fainting, she again rallied. On inquiry, I found the attack had already lasted two days; and it was evident that her powers were exhausted. Her voice was scarcely to be heard, the pulse was quick and feeble, and her breathing was very short, the countenance was livid and anxious; in fact, it seemed as though another gush would destroy her. Her medical attendant, Mr. Burton, plugged with sponge, but ineffectually. On the instant, I proposed to inject a small quantity of spirit of turpentine; and having procured a gum-elastic male catheter, and cut off its end, so that there was an open mouth, I introduced it through the os, which was very patulous, into the uterine cavity, and by a syringe I injected about two or three drachms of the spirit. Soon afterwards I plugged the vagina with tow. There was no further bleeding, but the pain was indescribably great, as though there were burning coals in the uterus and bladder. The evidences of hysteritis seemed so clear, that I feared we must have taken away blood. Fomentations of poppy and conium applied very hot; camphor and laudanum, together with a purgative enema, allayed the intense suffering. In twenty-four hours I removed the tow, and there was no further bleeding. Menstruation never returned, and from the continued and occasionally severe pain which followed the use of the turpentine, I suspect that adhesion of the sides of the uterine cavity resulted from the inflammation. Her former intemperate habits were soon resumed, and in less than a year she died. No inspection could be obtained.

I again witnessed the advantageous effect of this remedy in July, 1838. On that occasion I was requested to visit a lady under the care of Mr. Price, of Margate. On my arrival, the following particulars were communicated to me:—Mrs. M——, æt. 45, is the mother of several children, and has suffered from menorrhagia for two or three years: of late, the losses had been large, and she had repaired to the sea-side for a restoration of health. Two days before my visit, July 17th, the period returned, and in a few hours much blood was pumped out of the uterus by gushes. Mr. Price promptly, but without stopping

the hemorrhage, gave large doses of ergot, acetate of lead, and sulphuric acid, at the same time applying cold externally, and injecting astringents into the vagina. It soon became evident that more must be done, and Mr. P. boldly determined to throw a small quantity of turpentine into the uterine cavity. On my arrival this had been effected some hours; the bleeding had ceased, and she appeared to have all the symptoms of hysteritis. The agonising pain, described in the preceding case, was present, requiring aid to keep her in bed. The pulse was 140, irritable and thrilling, but compressible, and without hardness or power. The abdomen was painful to the touch, but not in the same way as in puerperal fever. The pain had aggravations and intervals of less severity, and it was not necessary, as it often is in puerperal peritonitis, to prevent the pressure of the bed-clothes by placing a cradle over the patient. Still the sufferings were described as almost unendurable. Opium, a purgative enema, and afterwards a suppository, together with anodyne and mustard fomentations, palliated the pain; and, under the influence of a full opiate, she got some refreshing sleep. The vagina had been plugged prior to the injection of the turpentine, and before we left her for the night, I carefully filled it with tow, wetting it afterwards by a syringe with decoction of ergot (vide formulæ). In the morning there had been no return of hemorrhage, and I was subsequently informed, by Mr. Price, that she had recovered well but slowly.

In cases of alarming menorrhagia, it is a matter of moment that the practitioner remain with the patient and ascertain very frequently the extent of the hemorrhage. In puerperal bleedings, after the expulsion of the placenta, life is often dependent on this precaution. A crown princess of Austria, who had been attended by the celebrated Boer, of Vienna, (the case is related by Dr. Rigby) and many other women, have been lost from the neglect of its observance, and in the instances now under inquiry it is scarcely less necessary. After excessive menorrhagic bleeding by gushes, or in a stream, the powers of life are often reduced to a very low ebb; and protracted but slight drainings may therefore afterwards insidiously and unexpectedly sink the patient.

CHAPTER VII.

OF LEUCORRHŒA.

DEFINITION.—*An excessive and altered secretion of the mucus, furnished by the membranes lining the vagina and uterus, by the follicles of the interior of the cervix uteri, and by the lacunæ of the vestibulum, generally white or nearly colourless and transparent, usually without much odour, glutinous, muco-purulent, or purulent, sometimes yellow, green or slightly sanguineous, and of varying degrees of consistency. The amount of constitutional derangement depending on the severity of the affection and the susceptibility of the patient.*

There are *three* forms of the disease.

First, The common leucorrhœa, often mild, sometimes acute.

Second, The inveterate and chronic leucorrhœa.

Third, The symptomatic leucorrhœa.

Acute and mild leucorrhœa.

History and Symptoms.—I have adopted this division, because it is both correct and comprehensive. It is proper to distinguish a recent, common, and inflammatory leucorrhœa, from one of the same order, only of chronic inveteracy. And it is certainly not less correct to distinguish both these from the symptomatic form, when the discharge owes its origin and continuance to structural or malignant changes of the uterus or its appendages. It is also comprehensive, not only including the examples where the pathological condition is inflammation or simple uterine catarrh, but also the symptomatic cases, where changes of a more serious or disorganizing kind are the source of the mischief. Of all the diseases peculiar to the sex, there is none so common. Few married women, particularly if they are mothers, escape its attacks. The young and the robust are less liable than those more advanced in life, especially if the latter

possess susceptible and delicate constitutions. If evidence were required of its almost universal prevalence, it might be found in the number of its synonimous names, in the vast variety of real or supposed remedies, and in the many treatises published to elucidate its nature. In its milder forms, there is so little pain and constitutional disturbance, so little interference with the uterine functions and the comfort of the patient, that we cannot wonder at its neglect. And yet I believe, if care were taken at this early stage, if ablution only was frequently practised, the tone of all the parts, and more particularly of the secretory membrane, would be regained, and further mischief entirely prevented: so far as my observation has gone, there is amongst female youth, and women generally, in this country, an unfounded dread of ablution of the external organs, either cold or tepid. The vicissitudes of our climate in some measure account for and justify the impression, but nevertheless it is too general, and extensively injurious. The duration of the affection has often astonished me; many individuals stating that they have suffered from it for years, and some few during the whole of their lives. But it is disease still; for in health there is an accurate relation between the amount of secretion and the purpose which it serves, viz. lubrication of surface. When, from any cause, its amount is increased beyond what is necessary for this important end, it is morbid; although, in many instances, remedies are scarcely required for its cure. It was stated, when treating of menorrhagia, that climate and peculiarity of constitution were criteria of importance in determining whether menstruation was morbidly profuse. The observation is partially true of leucorrhœa, as in hot climates and in marshy districts—in Holland for example—there is a larger quantity of mucus naturally secreted than in drier and more temperate regions. I do not wish to extend these general observations; but still, without some clearing of the ground, it will be very difficult to convey any correct ideas of the different degrees, and of the various seats of this prevalent malady. Thus, although the vagina is the common outlet for all leucorrhœal discharges, it must not be forgotten, that these differ much from each other, being furnished by parts of different structure and vascularity, whose healthy secretions are far from identical. A precise knowledge

of these differences will not only assist us in the diagnosis, but will also render our treatment more efficient.

The mucus naturally secreted by these various parts, although not entirely the same, does not differ in any of its essential properties from mucus furnished by similar membranes in other parts of the body. It consists of albumen and soda, and in transparency, colour, and viscidity, it closely resembles the white of an egg in its natural state.

The mucus secreted by the lining membranes of the uterus and fallopian tubes, is correctly characterised by the above description. Its purpose is such a degree of lubrication of the sides of the tubes, and of the opposing surfaces of the uterine cavity, as shall prevent their adhesion. It need scarcely be added, that a very small quantity is sufficient, and that with the exception of the period of pregnancy, when the decidua covers the membrane, its secretion must be constant.

The mucus furnished by the lining membrane of the vagina, is more abundant in quantity, and less viscid than the uterine mucus. This fact is readily proved by examination under procidentia. If the finger be merely introduced into the vagina and withdrawn, it will be covered by a thin mucus only; but if it be carried, as it often may, through the os into the interior of the uterus, the adherent mucus will be found much more ropy and tenacious; generally, indeed, it may be considerably drawn out without breaking.

The mucus furnished by the lacunæ of the vestibulum, or that part of the vagina external to the hymen, is probably slightly more tenacious than the vaginal secretion, and is said to exhale a peculiar odour. Whether it possesses this latter property independently of pregnancy or morbid action, or in higher degree than the mucus furnished by other parts, admits, I think, of doubt.

The secretion from the glands of the interior of the cervix uteri, is not often found in common leucorrhœa. I had lately an opportunity of examining these glands and their product, in a patient who had died in early pregnancy. The glands themselves were numerous and clearly discernible, and the mucus was easily drawn out entire and unbroken. Sir Charles Clarke, whose work on Female Diseases cannot be too highly esteemed,

says, "that this mucus contains a smaller proportion of water than any other, approaching nearer to the nature of a solid than a fluid body. These glands, in a state of health, perform the office of secretion in pregnancy only; or if, at any other time, the matter secreted is of a very different kind, so resembling common mucus as not to be distinguished from it."

A remembrance of these facts will aid us in forming a correct opinion of the nature and precise seat of the several forms of the disease. If, then, these secretions differ from each other in health, doubtless under various degrees of irritation and inflammatory action, a similar difference will be apparent. The simplest idea of leucorrhœa is obtained, by regarding its mildest acute form as the result of mere hyperœmia or vascular congestion, whether it affect one only, or all the parts enumerated in its definition. Under such an amount of morbid influence, the secretion furnished by these various parts will be more abundant than in health; but it will retain its natural characters, it will still be a white, transparent, and glutinous mucus; there will be derangement of system, produced by febrile excitement, slight ardor urinæ, and some sensations of heat and tenderness about the generative organs. It is easy, after this description, to understand, the transition to its more serious forms, where the healthy properties of the mucus are lost; where it has become not only excessive in quantity, but muco-purulent, entirely purulent, or ichorous and watery, and of yellow, green, or sanguineous colour; and where the constitutional affection is acute and extensive. Here we shall have no hesitation in believing, that congestion and irritability have been succeeded by inflammation, and that whether several only, or all the parts are affected, they have lost their healthy secretory action, and are pouring out pus, the proper and usual product of an inflamed mucous membrane. Nor is this statement less true of the third or symptomatic form, where the discharge is the consequence of any of the grave structural lesions, of which it is so constant an accompaniment.

Often, in common leucorrhœa, I have examined by the vagina, but without discovering more than trifling increase of the body of the uterus, some tenderness of the cervix in the inflammatory form, but none in the protracted or chronic

variety. The state of the cervix is occasionally soft, and the os rather patulous. Sometimes the orifice is not at all open, but generally the whole of these parts are supple, bathed in discharge, and much more relaxed than in health. In several instances where I have used the speculum, the cervix has been pale, in more acute cases slightly red, and in two severe attacks, it was of a deep crimson tinge. In none where there was not suspicion of venereal taint, have I seen erosion or ulceration. A few days since I had an opportunity of examination, and there were three distinct and large patches of superficial ulceration on the cervix; but the other symptoms were too unequivocal to leave any doubt of the presence of gonorrhœa. I have already stated, that the discharge varies much in quantity; sometimes it is so profuse as to oblige the patient to change the napkins several times daily; at other times it is less in quantity, but acrimonious; and in colour and consistency there is almost endless variety.

Viewing the different forms in this way, there will be less difficulty in assigning to each, either a mild, aggravated, or symptomatic character. Examples of the least severe kind, arising from excitement, are most frequent. The blood-vessels of one or several of the secreting parts, from increased circulation, become congested, and soon afterwards excessive secretion, constituting the leucorrhœa, takes place. In many of these instances, the augmented secretion is probably confined (and in this idea Dr. Burne concurs) to the muciparous glands of the ostium or entrance of the vagina, scarcely affecting the membrane of the whole canal, much less the uterine secretory surfaces. This opinion becomes highly probable from the fact, that recent and mild leucorrhœa often yields to ablutions and lotions, applied, not as injections, but as washes to the external parts, the genital fissure being exposed by the separation of the labia. Here the accompanying symptoms will be so slight, as scarcely to secure the attention of the patient. From this incipient and mild form, every degree and variety will be met with, up to the most aggravated and symptomatic examples of the affection. In some, the vascular excitement and irritation will be more marked, and the local symptoms and constitutional derangement more distressing. The dis-

charge may not only be excessive, but highly irritating, and there may be ardor urinæ, heat of the genital fissure, and dysuria. But this assemblage of symptoms, constituting a case of acute, inflammatory leucorrhœa, may quickly yield to ablutions of tepid water or poppy fomentation, aperients, abstinence from intercourse, spare diet, and rest. These, therefore, are not the cases in which medical aid is anxiously sought. But in a still more severe attack, where, from any of the causes to be hereafter specified, inflammatory action has been followed by excessive and acrimonious secretions, the symptoms will generally prompt the patient to seek immediate relief. In such, there will be rigors, from sympathy with the uterus, heat of surface, a quick pulse, and white tongue, pain in the loins and hypogastric region, heat and pain about the cervix uteri and neck of the bladder, affecting also the vagina, urethra, and external parts, distressing ardor urinæ, and strangury. These symptoms may continue one or several weeks, according to the treatment and its success. If, under the idea of its being a "weakness," tonics and stimulant injections are early exhibited, the discharge will probably become more excessive, purulent or muco-purulent, thin and watery, or ichorous, and the constitutional effects more aggravated. If, on the contrary, antiphlogistic and soothing treatment be adopted, the morbid secretion will diminish in quantity, and the general derangement will disappear. In many instances, the cure is quickly effected; but in some, even where proper treatment is early and fully pursued, it lasts long, proves very troublesome, and eventually passes into a chronic and inveterate state. It need scarcely be said that the discharges in the varieties now pointed out, originate in increased action of the vessels of the different parts. Females, therefore, of plethoric habit, possessing more than ordinary vigour of constitution, are more liable to such attacks than those who are feeble or less strong. And as the former is not so numerous a class as the latter, it may be affirmed that leucorrhœa, attended by weakness, is the more common form. Yet it must be remembered that some females indulge in the pleasures of the table, and drink too freely of malt liquor, wine, or spirits. In many affections thus produced, the cares of a family or a business, or more frequently the disincli-

nation to exercise, or eventually the want of strength sufficient to bear its inconveniences, almost compel a sedentary life. Hence they become corpulent, but not strong; a larger quantity of blood is generated, vessels scarcely to be seen before become visible, the pulse is full, the respiration is embarrassed on slight exertion, and the functions of the bowels and the kidneys are badly performed. In these examples, and they are not very uncommon, particularly about the middle period of life, menstruation often becomes profuse, and the leucorrhœa excessive. Great care is required in the treatment; for if these undue secretions are suddenly stopped, apoplexy, inflammation of the liver, of the stomach or bowels may supervene and the patient be quickly destroyed: in the section on treatment these circumstances will receive their full share of attention. In the various degrees now pointed out, leucorrhœa is a common sexual malady; nor is it difficult to believe, from the complication of its causes, the susceptibility of women, the frequent neglect of all treatment and the injudicious management so often adopted, that every variety of case shall arise.

Second, Chronic and aggravated leucorrhœa.

It is in this form, not in the preceding, that the cure is difficult. The history of these more serious cases is instructive; because it generally reveals early neglect or improper treatment. Some females, however, seem to be almost naturally the subjects of discharges, unusual in amount as well as in character. In many instances, amongst the out-patients of Guy's, these leucorrhœal discharges are so habitual, that complaints of congestion in other parts, about the head or chest, pains in the limbs, or neuralgic pains of the abdomen, are almost invariably complained of for some weeks after the excessive and morbid secretion has been entirely or even partially cured. Nor is it at all uncommon, when many remedies have been tried, without benefit, that the disease is allowed to take its course uncontrolled. The frequent results are sterility, from anemia of the reproductive organs, especially of the ovaria, prolapse and procidentia of the uterus, and not unfrequently of the vagina and bladder.

It need scarcely be added that pallor, partial emaciation, or

rather thinness of person, indigestion, impaired appetite, and constipation, languor, and weakness, are the constitutional accompaniments. In some instances (vide cases), the continuance and aggravation of the leucorrhœa is the fault of the practitioner. Uterine or general plethora has been overlooked; the morbid state of the cervix or body of the uterus has been disregarded; abrasion or ulceration affecting these parts or the vagina, may not have been discovered because an examination by the speculum, or the finger, has not been made. Thus what was at first, and for some time, a case of aggravated and chronic leucorrhœa only, becomes in the progress of the morbid action, an example of the symptomatic form, and requires for its cure a much more local application of stimulant and alterative remedies. I have known two examples where severe and primary attacks of leucorrhœa, were rendered chronic and aggravated by an unnatural heat of the external parts, produced and maintained by the constant wearing of thick napkins, to secure the patients against the discomforts of large discharges, which were, by this measure alone, rendered still more excessive and constant, (vide cases), a greater supply of blood being thus induced. Where the leucorrhœa is chronic and aggravated, there is great variety in the discharge. Sometimes it is glutinous, transparent, and colourless—the natural secretion in excess—at other times it is decidedly purulent, muco-purulent, or watery, the result of inflammation changing the action of the parts. Nor is the colour less variable: a green or brown tinge may indicate excessive irritation, and blood mingled with the discharge will probably result from abrasion or rupture of the capillaries of the uterine surface, or it may announce the approach of the catamenial period.

After these observations, it will be understood that the general health may be fearfully and sometimes, although very rarely, fatally broken down by chronic and inordinate leucorrhœa. If it exist in the young, or in those who have scarcely passed twenty years of age, amenorrhœa and chlorosis, with their numerous evils, and ultimately phthisis, may occur. Nor would these results appear so astonishing, if by accurate inquiry the quantity of mucus, constantly secreted, was really known. It would then scarcely surprise us that a girl, delicate perhaps

from birth, or who, at least, may never have enjoyed good health, should eventually die from consumption to which she may have had a latent tendency, after a drain of blood for months and years, sufficient to furnish an ounce, or several ounces, of leucorrhœal secretion daily. Nor is it more to be wondered at in married women, that menstruation should be long suspended, and that conception should be prevented during the exhaustion produced by these discharges. It cannot, I think, with truth be affirmed, that changes of structure never occur in connection with protracted leucorrhœa, although it may probably be satisfactorily proved, that malignant lesions are not within the scope of its morbid power. Softening of parts and partial disorganization of the uterus may, according to Andral, and my own observation, take place. I know that a brain may soften, and purulent deposit be found in its substance, as the effect of undue lactation, and there is clearly no reason why some similar effect should not happen to the uterus from excessive and protracted leucorrhœa.

Patients often think because the pain and heat, and constitutional disturbance continue, or are frequently repeated, that formidable uterine disease must exist. This opinion is strengthened by the acrimony and odour, and the occasional sanguineous tinge of the discharges. Doubtless, under such circumstances, examinations by the speculum and finger ought to be made; but, even in their omission, a hasty conclusion should not be formed, as these symptoms often occur in a functional but severe and protracted case.

There must be noticed also a form of the malady, by some authors denominated the *passive*, but for which a better appellation, judging from its permanency, would be *habitual* leucorrhœa. In many instances it is the consequence of acute and inflammatory attacks; but in still more of constitutional and local weakness. The generative organs of most leucophlegmatic females, are habitually relaxed, and there are not a few where a very small quantity of mucus seems naturally to exude from the surface of the genital fissure. To this condition I have already alluded as one not generally deserving to be regarded as morbid, and only requiring for its controul careful and repeated ablutions. But this habitual and trivial

discharge dependent originally on constitution, climate, and temperament, may become morbid by its excess; especially when it co-exists with amenorrhœa and chlorosis. Nor must it be forgotten that it has been cured, when of long standing, by marriage, and by the re-occurrence of menstruation.

It is rare in the young, and common in married women, to whom there belong the general conditions already described, and whose strength has been weakened by sexual excess, menorrhagia, abortion, or over-lactation; these having perhaps induced displacement and prolapse of the uterus. The symptoms are slight, and there is scarcely any local irritation. The discharge is generally white, stiffening the linen; and if there be a neglect of cleanliness, it may produce inflammatory abrasion of the upper part of the thighs and heat of the labia. The constitutional effects are trifling; and yet such a patient will often by pallor of face and darkness round the eye-lids, languor and incapability of exertion, afford sufficient indications of the existence of a weakening malady. Occasionally, where the disease has been long unchecked, and where the discharge is on the increase, there will be emaciation, constipated bowels, and depraved appetite and indigestion; and I have often known such patients complain of pain in the stomach, when empty, of a desire for food, without being able to take any, at least with relish, and of dragging and heavy feelings in the abdominal and lumbar regions. The complexion is often sallow and icterode, and several times I have had great difficulty in curing eruptions about the face and forehead, which have long existed in connection with this form of leucorrhœa.

Third, The symptomatic leucorrhœa.

To a certain extent all that has been heretofore advanced is applicable to the symptomatic form. Most of the symptoms already pointed out will exist here; but with great variety as to their causes and relief. For example, a transparent mucous discharge is equally an attendant of prolapsus uteri, as of inflammatory uterine catarrh: but the accompanying symptoms are widely different; nor can the cure be accomplished by the same means. Again a muco-purulent, or purulent secretion, may result not only from acute inflammation of the uterine mucous lining, but from a cancerous or submucous tumour. The

cure in the one case may be effected with comparative ease: in the other relief only, and that not without difficulty and delay, can be expected. The symptomatic form of the disease is therefore deserving of especial notice; but, as in subsequent parts of the work, it must be the subject of remark, in connection with the structural lesions of which it is so frequent an accompaniment, it is not necessary at present to make more than these few observations.

The importance of accurate examination by the finger and speculum, where the leucorrhœa is suspected to arise from lesions of an organic kind, can scarcely be too strongly urged. Nor ought it to be forgotten, that more than one such inquiry may be required, as an affection at first confined within the limits of functional disease, may in its progress acquire a totally different character.

There is a *peculiar form of leucorrhœa* somewhat allied to hydrometra, inasmuch as the contents of the uterus in this latter disease are not always serous, but sometimes albuminous and muco-purulent secretions. In this variety the discharge does not consist of a limpid glairy fluid like common mucus, nor does it come away gradually as in common leucorrhœa; but the fluid is often entirely purulent, or so closely resembles pus, as to be with difficulty, if at all, distinguished from it, either in colour, viscidity, or odour; and having accumulated in the uterine cavity to four, five, six, or more ounces, it comes away by gush. In these particulars it differs widely from ordinary leucorrhœa, and in one example I thought from the suddenness of its escape, and the similarity of the previous symptoms, that the discharge must have been the result of abscess. This opinion, however, was not confirmed by subsequent events. In all the instances falling under my observation, and they are comparatively rare, muco-purulent leucorrhœa had long existed previously, and although it was suspended during an accumulation going on in the uterine cavity, it returned immediately after the escape of the purulent gush. It is true, nevertheless, that the symptoms assume a character distinct from any other form of the malady, as the time for the eruption approaches. (vide cases). There is fulness about the hypogastrium, a sense of constriction and weight about the neck of the bladder and along the course of the rectum, dysuria, heat, general uneasiness, and sometimes

acute pain with forcing about the uterus. In one instance the patient was so distressed by these, that she was compelled to keep her bed for several days prior to the escape of the pus. The general health suffers from the repetition of this series of morbid actions.

Sometimes there is emaciation, and there is usually great difficulty in the cure. In two instances where widows were its subjects, the disease disappeared after marriage, pregnancy having soon occurred. I have several times examined prior to the escape of the fluid; the uterus has been generally but not greatly enlarged; the cervix swollen and slightly tender, and the os partially closed. In no case has an examination revealed subsequent structural mischief, and in none that I have seen has the uterus been sufficiently voluminous to render it at all probable that it should be mistaken for an ordinary case of hydrometra. I have never seen this affection in young females. Married women, and particularly widows, or those in whom the reproductive organs having been employed are so no longer, seem to be its most frequent subjects.

I have thus attempted to elucidate the history and symptoms of this prevalent disease, without adopting the division into vaginal and uterine leucorrhœa. Independently of symptoms, it is allowed to be very difficult to distinguish what portion of two continuous membranes of identical structure are morbidly furnishing a nearly identical secretion; it seems much easier and more rational that the diagnosis should rest on the severity of the symptoms, and the difficulty of cure. It is known that the vagina is much more frequently the seat of disease than the cavity of the uterus, and, in the majority of instances, it yields more readily to remedies. Thus where there is marked aggravation of symptoms and considerable constitutional derangement, the uterine membrane is probably implicated; but where, on the contrary, the whole of the symptoms are locally and constitutionally slight and easily cured, the vagina will generally be found to be the seat of the disease. The frequent implication of both the vaginal and uterine secretory surfaces, and the difficulty even where one only is morbidly affected, of distinguishing which it is, will often perplex the diagnosis, whatever divisional arrangement be adopted.

Causes.—These are numerous, and, according to their nature, have a distinct influence in the production of the different varieties of the disease.

The *first* form, which I have denominated the *common leucorrhœa*, and *which is more idiopathic* than the others, owes its origin, especially in delicate and strumous females, to causes inducing increased action, and sometimes inflammation in the secretory surfaces and glandular apparatus of the genital organs. These are, the application of cold or moisture, frequent excitement resulting in debility from excessive sexual intercourse, abortions, from which the patient has only imperfectly recovered, quickly recurring labours, puerperal hemorrhages, menorrhagia, profuse menstruation, and undue lactation. The irritation of a pessary, or of stimulant injections on the vaginal surface and the cervix uteri belong also to this class. There are other causes which act only *indirectly*, and these, with the agencies already pointed out, may lead, where the common, mild, and more idiopathic disease is uncured, to the *chronic and aggravated form*. These operate through the medium of the nervous system and by sympathy. Thus in amenorrhœa, where the functional or organic nerves of the uterus are affected, a leucorrhœal secretion is frequently set up, not only from the vaginal but likewise from the uterine mucous surface. Intemperance in eating and drinking often induces derangement of the stomach, bowels, and liver; by sympathy with these, morbid actions of the uterine system may be induced, and leucorrhœa will often be the result. Nor must irritation of the spinal marrow be omitted in this enumeration. I lately saw an example where leucorrhœa might be traced to morbid affection of the chord in the sacral region, as evidenced by tenderness when these parts were pressed. Here there was an unusual degree of lumbar and sacral pain, much more than could be fairly attributed to the quantity or continuance of the discharge. In such, a cure is obtained by rest, leeches, and stimulating embrocations about the loins and sacrum. Still, I do not wish it to be understood that dorsal, lumbar, and inguinal pains, are the concomitants of leucorrhœa of this kind alone. For I am quite aware that these symptoms are attendants on

cases of leucorrhœa, where there is no such remote and influential sympathy.

Symptomatic leucorrhœa, as its name implies, being the consequence of other and distinct diseases, may be attributed to any causes which shall produce uterine or vaginal irritation. Amongst these must be mentioned relaxation, prolapsus, and the other displacements of the womb, polypi of various kinds, affecting the uterus, vagina, or urethra, hard or soft tumours of the reproductive organs, ascarides, a pessary, and other bodies intentionally introduced into the vagina.

Pathology.—There can be no doubt that leucorrhœa owes its origin to two distinct and dissimilar conditions. The first, a state of hyperœmia or increased action of the vessels of the secretory surfaces, and the second, debility, either original or produced by the continuance of the former state. By some authors nearly all the cases are supposed to depend on weakness, excepting such only as are accompanied by symptoms of inflammatory action. There is truth in this opinion if the examples be included where the leucorrhœa having been of the first kind originally, has by its continuance terminated in the opposite state. Let it, however, be remembered, that it does not necessarily follow because the system generally is delicate, that the uterus and vagina must of necessity be in a state of anemia. Local and long continued inflammation often produces constitutional weakness, and certainly the progress of the malady, the irritation and pain, and the increased secretions, point to inflammation as one of its essential primary conditions. Nor must we forget that delicacy often exists without leucorrhœa. Still, original or acquired feebleness of system may give increased efficacy to the various exciting causes of this prevalent malady.

Probably in all the instances where the uterine lining membrane is implicated, particularly in those where leucorrhœa is vicarious of menstruation, the vessels eliminating the catamenial fluid furnish the morbid discharge. In the symptomatic forms, the pathology is necessarily different, as a displaced uterus, a prolapsed vagina, hard tumours, and various other structural growths and deviations, produce the disease.

Diagnosis.—This is frequently difficult, and between some forms of the disease and gonorrhœa nearly impossible. Still in

numerous instances a correct distinction may be drawn, and where difference of treatment is involved, it ought to be attempted.

In mild leucorrhœa it may be assumed, that the muciparous glands at the entrance of the vagina and the lining membrane of the canal are alone affected. Where the symptoms are decidedly severe, the uterine lining membrane is often interested. The diagnosis will be aided by an inquiry into the following circumstances: If the discharge was first observed after abortion or delivery; if it was prior to, or has partially or entirely superseded menstruation; if there be much pain in the hypogastric or lumbar regions, with nausea and vomiting, or uncomfortable sensations about the stomach, liver, or head, these point to an affection of the uterus, rather than of the vagina. With the latter, we know that the constitution sympathizes but little, while with the uterus, by means of the organic nervous system, its sympathy is most intimate. It has been proposed to use a piece of sponge as a local test, which is to be introduced into the vagina, so as to plug the os uteri, on going to bed; and if, when it is removed in the morning, there be no more discharge adhering to it than would occur from the natural mucus of the canal, the discharge which takes place by day must be regarded as uterine. If, on the contrary, the sponge be thoroughly moistened, the vagina must be considered as implicated in the mischief. But it is evident that this test is not unexceptionable. If the discharge be uterine only, but excessive, the sponge will be much wetted with the absorption, the uterine cavity being so small in its normal state, that it cannot contain more than a few drachms. If the vaginal surface be also secreting in excess, no satisfactory diagnosis can be thus made. Nor will an examination by the finger afford unerring information; as in merely vaginal leucorrhœa, if it be profuse and of long standing, there will be a similar relaxation and softening of the cervix, as is found where the uterine surface is affected, and in most instances of either form, the os will be open, or in at least a dilatable state. Thus we are compelled to depend on the indications previously stated, except where we are permitted to use the speculum, the only certain means of diag-

nosis. The following account comprises the result of M. Marc d'Espine's researches with this instrument on the subject of leucorrhœa. They were extracted from the Archiv. Gen. de Med. for February 1836.

M. d'Espine notices its continuance during the menstrual intervals, and also its occurrence just before or just after the menstrual evacuation. The climate of the middle and north of France appears most favourable to its production, and women with very light or very dark hair seem most liable to it. The character of the constitution exercise very little influence. Out of nineteen women subject to whites habitually, six were robust, nine were moderately strong, and four weakly.

An examination with the speculum gave the following result in 193 cases. In 23 the uterine orifice was found dry—in 40 there was just a drop of discharge in the orifice—in 130 the discharge was abundant. The orifice may be quite healthy—pale—red—or bright red, and occasionally it was granulated and bloody.

The following table will exhibit the character of the discharge and the state of the uterine orifice, in 111 cases.

	Orifice healthy.	Orif. reddish.	Orif. deep red and granulated.
Aqueous discharge	7	3	1
Albuminous transp. discharge... ..	30	6	6
Album. semi-transp. discharge, streaked blue, grey or yellow ...	13	19	10
Opaque discharge, streaked	3	7	6
	53	35	23

Doubtless where there is pregnancy with a sealed os, the leucorrhœa, however severe, must be vaginal.

From leucorrhœa, the consequence of structural or malignant disease, the diagnosis will be made by the accompanying symptoms, and by examination of the vagina and rectum, not only by the finger, but by the speculum.

From inflammation of the glands in the interior of the cervix; by the presence of the white creamy discharge; and by the peculiar tenderness of the cervix on pressure, the adjacent parts being quite sound.

From fluids, which very rarely find an outlet through the vagina, after the bursting of an abscess or cyst in the ovary,

uterus, or surrounding organs; by previous indications, such as local pain, swelling, &c., which do not occur in leucorrhœa; by the suddenness of the escape, and often by some marked quality of the discharge, as its offensive odour and its colour, being often mixed with blood, and its extreme viscidity or acrimonious tenuity.

From gonorrhœa the distinction is often difficult, and in some instances impossible. The character of the individuals, and particularly of the husband, and the previous and present habits of both, if they be highly moral, will go far to negative suspicion. Even in doubtful cases, it must be remembered that leucorrhœa is sometimes purulent, and so far infectious, as to produce from the male urethra a discharge which, in its appearance and accompanying symptoms, is not easily distinguished from gonorrhœa. Generally the secretion in the male is mild, and there is but little of that excitement, heat, and ardor urinæ so constantly attendant on the real infectious gonorrhœa. It is said, too, that it is quickly cured, and that it is rarely or never succeeded by gleet. These observations are in the main correct, but still they require some qualification. Where by the speculum, erosions or chancrous sores can be perceived on the os and cervix, the syphilitic character will be established. If, also, there be tumefaction of the inguinal glands, pain during coition, and a discharge from the urethra, with a burning pain along its course, and tenderness and inflammation at its orifice, gonorrhœa is probably present. Lisfranc says, "that it is very difficult to ascertain whether these white discharges are or are not contagious, whether they are or are not venereal. He thinks that a white discharge may communicate the venereal disease, especially when the former is connected with small ulcerations of the vagina or urethra, a case more common than is usually thought, but which may be ascertained by examining with a glass those parts, the slightest erosions of which easily escape the naked eye." (vide Lectures published in the Lancet, Nov. 30, 1833). I presume this singular statement is not intended to convey the idea, that the venereal disease can be communicated by common and unspecific ulcerations, merely because they happen to exist on the cervix uteri; and still, if less than this is meant, there is little if any point in the passage; be-

cause the statement is a mere truism, that syphilitic erosions or chancres can produce the syphilitic disease. The perplexity, therefore, of these cases, is fully admitted; and it will often happen, that where we are most anxious to arrive at a positive conclusion, we shall be least able to do so. At all events, it behoves the practitioner to be extremely tenacious of the reputation and happiness of parties thus circumstanced. It is always his duty to cure the disease, but rarely to venture upon an exposition of its nature. If he can positively affirm that it is of simple origin, let him do so, if suspicion has been aroused; if not, it is better to avoid any distinct allusion to the matter. One thing is quite true, that in women of indisputable purity, leucorrhœa is sometimes so acrimonious, as not infrequently to produce discharge and abrasion in the husband; and on one or two occasions, after abortion, I am almost confident, that eruptions and decided ulceration have been amongst the results of intercourse. In these examples the shadow of suspicion did not rest on the female.

Prognosis or terminations of leucorrhœa.

Acute leucorrhœa, if treated promptly, is usually of short duration. The symptoms gradually subside, and the tone of the parts is regained. If, therefore, there is a leucophlegmatic habit, and a constant excess of moisture about the genital apparatus, it is not improbable that an inflammatory attack, under such circumstances, may glide into the chronic form, and may long continue. Some females, indeed, except when in unusually good health, seem never to be free from habitual leucorrhœa; nor does it appear seriously to affect them. But there are cases, where the discharge is so profuse and protracted, that the same results are realized as in excessive menorrhagia. There is a quick and feeble pulse, a cadaverous countenance, impaired appetite, and emaciation. If the patient be married, (vide case), sterility is not an uncommon consequence; and if single, chlorosis and amenorrhœa, and possibly dropsy or phthisis may supervene. I do not affirm these greater evils to be the frequent sequel of the disease; but the practitioner should be on his guard, more particularly where, in the unmarried, emaciation, amenorrhœa, and chlorosis exist. A cough, fever, morning perspiration, and pulmonary affection, may soon follow.

Treatment.—This must of necessity be different. The various forms of the malady differ so widely from each other in degree, that while in the slighter cases scarcely any treatment at all is required, in the inveterate it is often most puzzling to find any remedy. Thus the mild form easily yields, the inveterate is cured with great difficulty; and the symptomatic leucorrhœa cannot be restrained till the removal of the affection, if that be possible, of which it forms a part. But to be more precise: In ordinary cases, where there is only hyperœmia or simple vascular injection of the secretory membrane, and where the discharge, although increased in quantity, still retains its transparent mucous character, — rest, abstinence from intercourse, if married, animal food and wine, mild aperients, and the employment, as a wash, of the Liq. Plumb. C., or the Liq. Alumen. C., or the tepid poppy water, will usually, in the course of a few days or a week, cure the disease.

In the inflammatory form, which comparatively we do not often see, where the secretion has become purulent, where the pulse is quick, full, or hard; where there is heat, increased action, and inflammatory congestion of the secretory surfaces, slight swelling of the genitals, and pains in the loins and hypogastric region, the antiphlogistic treatment must be at once commenced. Blood may be drawn from the arm in moderate quantity, or from the loins by cupping. Leeches to the hypogastrium, groins, or perineum, must be promptly employed; and if, by a vaginal examination, the cervix shall be found swollen, shining, red, and tender, leeches, or what are much better, scarifications, may be used. I have now several times scarified, not punctured the neck of the uterus by a common lancet, mounted on a piece of whalebone, with marked benefit. The pain of the incision is most trifling; there is no ulceration nor suffering afterwards, and in twenty-four hours, the cervix generally seems to be entirely free from congestion. In the winter of 1839, I was asked by the late Mr. Fenner to visit a patient of his at Islington, suffering from inflammatory leucorrhœa. She had not been confined more than two months; her own reputation, and that of her husband, were above all suspicion; the severity of the pain in micturition, and the profusion and acrimony of the discharge, would have induced the belief that

it was gonorrhœa. An examination by the speculum showed that the cervix was congested, red, and extremely tender; but there was no discharge from the urethra, nor any swelling of the inguinal glands; aided by the speculum tube, the cervix was scarified, and at least four or five ounces of blood were abstracted, the operation not lasting more than a quarter of an hour. The hip-bath, as advised at page 109, mild aperients, spare diet, salines, and occasionally narcotics, will be required. Astringents are not included in this enumeration, and if they are used during the first few days of the disease, while the inflammatory stage continues, or before the discharge has become thinner and more abundant, pain and aggravation of symptoms will often ensue. I know there are cases easily cured by the compound alum injection, or some spirituous lotion only. In such, the affection is probably the common and mild, not the inflammatory leucorrhœa; or if it be, and a cure is obtained, the patient and the practitioner will not censure this empirical plan, nor trouble themselves about the precise nature of the affection. If there be swelling of the labia, or of the parts within, redness, heat, tenderness, and throbbing, and pain on examination, with a purulent discharge, there is inflammation, and the soothing, not the astringent plan ought first to be tried. These acute symptoms, however, soon subside, but the excessive discharge continues; and at this point the use of injections, regarded by many as the specific treatment for leucorrhœa, must be commenced. For this purpose the various stimulants and astringents are employed, and often by sponging the parts externally, and within the genital fissure, but more frequently by throwing into the vagina, several times daily, two or three ounces, (following the directions given at page 139), aided by stomachics or tonics, mild aperients and rest, this unpleasant affection is cured. Generally the injections are cold, but occasionally the discharge is increased, and the inflammatory symptoms are reproduced by cold in any form. I have known many patients cured by tepid, and two by almost hot injections. Dr. Gooch (at page 35 of his Compendium) says, "that the treatment of leucorrhœa is to a great extent empirical. Cold astringents, among the rational practitioners, are in the most general use; but tepid ones are often equally beneficial. Practitioners

have exhausted all the cold astringent remedies, and then, having recourse to tepid ones, the patient has been cured immediately. The liquor plumb. acetat. is now used at the Middlesex Hospital, tepid, and with general success." The various formulæ will be hereafter mentioned. In this way examples of the inflammatory form are cured; but thus far it is presumed, that they are not very severe, nor that there is anything to prevent the beneficial operation of medicines, either in the constitution or in the habits of the patient. But we do not always possess these advantages. Sometimes, where the best means have been long and judiciously employed, the leucorrhœa continues, and the health declines. If the discharge be only small in quantity, and if the patient has been originally robust, months and even years may elapse without any serious results; but they come at last. I have often wondered to find the pallor, anemia, and other indications of debility, so extreme, where the discharge was scarcely more than by drops, although it had been more excessive. These examples remind us of passive menorrhagia, where there is a continual sanguineous draining from the uterus, attended by a cadaverous countenance, weak pulse, coldness of the extremities, and excessive nervousness. Indeed, these cases are not only similar in their nature, but they are almost invariably benefited, and sometimes cured, by one peculiar remedy, viz. the injection of three or four ounces of tepid, or (after a time) cold water, into the rectum, night and morning. Sometimes the effects of chronic leucorrhœa are so distressing, the discharge so excessive, and the cure apparently so distant, that not only the patient, but the practitioner also, inquires, what further treatment can be adopted, and on what circumstances does this want of benefit depend? In some instances, there is no doubt, that the delay arises from the difficulty of restoring to the secretory membranes their healthy action. Mr. Hunter fixed attention on this point, by the following remark, that "a gleet seems to take its rise from a habit of action which the parts have contracted; and as they have no disposition to lay aside this action, it is, of course, continued." Thus a vaginal discharge may be perpetuated by a "habit of action," most difficult to alter, but at the same time, satisfactorily explaining the pathology of passive or habitual leucorrhœa. Protraction may

also depend on specific or organic disease, such as gonorrhœa, hard or submucous tumours, ulcerated carcinoma, polypi, cauliflower excrescence, &c. The reply, then, to the question, what further treatment is to be employed? will depend on the results of examination by the finger or speculum, as these will furnish the best answer to the inquiry, what is it that prevents the cure? If the existence of structural maladies be discovered, the attention will be directed to these as the source of the local symptoms, for leucorrhœa is then only symptomatic of these graver diseases. But if, so far as can be ascertained, the individual is free from any specific or organic affection, recourse must then be had either to fresh remedies, or the treatment already adopted must be differently and more perseveringly pursued. English practitioners do not frequently examine per vaginam in leucorrhœa; and although in the majority of cases such an inquiry may be dispensed with, in dubious instances it is certainly requisite. So long as the discharge is muciform, even if it be excessive, without smell and not sanguineous, it may be presumed to be functional; but where, having long retained these properties, it has become acrimonious and offensive, watery and greenish, or brown like the grounds of coffee, or decidedly streaked and mingled with blood, there is strong reason for a different opinion, and an examination is absolutely essential. Injections of green tea, solutions of alum, the sulphates of zinc and copper, iodine, sulphate or tartrate of iron, and the carbonates of soda and ammonia, decoctions of bark, logwood, the ergot and catechu, and others (vide formulæ), may all be employed. Nor must it be forgotten that each of these, good though it be, soon loses its effect. I have cured many cases of passive leucorrhœa more quickly than I should otherwise have done, by acting on this suggestion: a week being often long enough to wear out the good effects of one injection. In the employment of measures acting thus locally on the secretory organs, the intention is to convert a morbid into a healthy function, and of course constitutional means, such as good air and diet, iron, quinine and chalybeate waters, with a regulated system of aperients, are not to be excluded. Both classes of agents may be in operation at the same time, without determining, what is often difficult to decide, whether the

leucorrhœa be a primary or secondary affection; whether, in fact, it has arisen from constitutional delicacy, or whether the constitutional weakness is the sequel of the local disease. Where the discharge is habitual and inveterate, and where, without disorganization of structure, the secreting surfaces have taken on a permanently unhealthy and disordered action, the nitrate of silver surpasses all other remedies in its restorative power. Its beneficial influence has been fully tested in affections of the mucous tissues of the mouth and throat, and a similar good effect will accrue from its use in chronic and inveterate leucorrhœa. Its exhibition will be explained hereafter, (vide formulæ). To Dr. Jewel the profession is indebted for a succinct and comprehensive account of its properties. Through the medium of the great sympathetic nerve, and by continuity, the reproductive or sexual are intimately connected with the urinary organs, and hence have been suggested copaiba, turpentine, cubebs, cantharides, and the tinct. benzoina comp. (vide formulæ), for the treatment of the chronic and inveterate form. Turpentine and cantharides I have given, often advantageously, and a good many times with curative effect. The latter is the great remedy of Dr. Dewees; and, beginning with thirty drops in sugared water, three times daily, he does not hesitate to mount up to a dose of two hundred, three times in the twenty-four hours. He is careful, if there be plethora, that it shall be removed prior to giving the tincture.

"We cause the patient," he informs us, "to be well purged; confine her to a milk and vegetable diet, and sometimes order her to lose blood; when the pulse is sufficiently reduced by these means, or if the pulse be in a proper condition without them, we commence the cantharides, &c." It need scarcely be added, by way of caution, that if strangury appear, the tincture is to be left off. "Should the complaint withstand the first strangury, we are not discouraged, but re-commence the remedy at the original dose of thirty drops, and increase it as before until a difficulty in making water is again experienced; it rarely, however, withstands the second irritation of the bladder." In hospital, and in private practice, I have secured these conditions; but I cannot report, as its author does, "that when properly conducted, or sufficiently persevered in, it rarely fails to

effect a cure." Still, my confidence in this practitioner is so great, that I am anxious his remedy should be extensively tried: —in other hands it may be more successful than in mine.

Attention to the general health cannot be neglected without detriment to the patient. Lately I saw a case where the discharge, which had been for weeks excessive, was restrained by giving five or six doses of blue pill, followed by an aperient of senna and salts; the first motions were highly offensive and scybalous; afterwards they became healthy, and with no other treatment than ablution, and a removal into pure, dry, and mild air, and the adoption of good diet and exercise, by which the function of the skin was restored, the cure was completed.

If the reader will turn to page 24 of this work, he will find in that and the succeeding pages, directions relative to the health of anemiated patients, which may be advantageously followed in chronic leucorrhœa. It is scarcely necessary to state, that menstrual irregularity is one of the frequent consequences of the disease when protracted. Leucorrhœa may, indeed, become vicarious of menstruation altogether (vide page 94); and certainly, although amenorrhœa induces leucorrhœa, the converse of this position is equally true. Whenever, then, the general health is so far impaired by excessive discharge, as seriously to have deranged the catamenial function, constitutional as well as local treatment must be pursued. A sea voyage, travelling abroad, the air of the sea-coast, foreign and domestic chalybeate spas and iron, constant exercise out of door, living in fact, in the open air, are the measures on which we must principally rely. The use of wine and spirituous liquors, strong tea and coffee, is recommended in habitual or passive leucorrhœa. Doubtless such advice requires strict limitation, but still in certain districts, and controlled by medical authority, it is beneficial. I recollect many years ago an old practitioner in the fenny and damp part of Lincolnshire, who said that the disease was almost endemic in his neighbourhood during certain parts of the year, and that he combated, and often cured it, by bark, wine, gin, tea and coffee. In Belgium and Holland, and round Berlin, the atmosphere is loaded with moisture, and it is common to attempt the cure of leucorrhœa, which is very prevalent, by spirituous liquors, tea, and flannel clothing. Solid animal food may

be eaten twice in the day, and if the digestive powers are much impaired, hot water, with a third or fourth part of brandy or rum, may be the dinner beverage. But, after what has been said at page 24, I need only refer to the directions there given. A patient, suffering from habitual leucorrhœa, without organic disease, should not sleep on a soft bed, nor frequent heated rooms and crowded assemblies. The excitement of music, the theatre, and late hours, should be exchanged for country air and exercise, moderate riding on horseback, and the simpler habits and scenes of rural life. In these cases, almost everything depends on the improvement of the general health, and this cannot be accomplished without attention to the chylopoietic organs. Let healthy digestion be restored, and the leucorrhœa will gradually disappear. It is not always safe to cure an inveterate leucorrhœa, without increasing for a time the action of the liver and the intestines, or putting the patient on a spare diet. This is particularly important where the discharge first appeared on the suppression of some customary evacuation, as, for example, where menstruation has become sparing after previous excess, or where an eruption having long existed, has at once or gradually disappeared. In these instances, some moderate drain is often necessary. Without it plethora, and its injurious consequences, may occur. An issue or seton ought occasionally to precede any curative attempt. In the young and middle-aged, spare diet, purging, and exercise will mostly suffice; but in women of full habit, addicted to the pleasures of the table, this more decided drain is often required. At a more advanced age, when congestions in the different organs are probable, and where the patients are strumous and feeble, peculiar watchfulness is requisite. After the cure of habitual leucorrhœa, ablutions of cold water, at least, if not injections into the vagina, should be daily practised; avoiding their use for a few days before and subsequent to menstruation.

In Dr. Balbirnie's digest of the practice in Female Diseases, of several eminent French physicians — a book deserving attentive perusal, the fears I have expressed of injecting the uterine cavity are said to be, in the great majority

of cases, "totally unfounded, and the mere remnant of ancient prejudice." M. Lisfranc first injects simply fresh water, then decoctions, or astringent injections or styptics, the strength of which is to be increased by the addition of a few drops of concentrated acid. "A gum-elastic tube, introduced with circumspection, serves as a means for conducting the injected fluid, and we are thus enabled to cure white discharges which obstinately resist every other method."—(Vide Lectures in the Lancet, Nov. 30, 1833.) I shall append to this chapter one or two cases, occurring in the practice of M. Tealier, where injections of soot and water into the uterine cavity were productive of benefit, without pain or any apparent evidences of hysteritis. It is right thus to contrast the contradictory results of a similar treatment. Further experiments, which these examples of success may justify, may establish a correct deduction. In the French hospital cases, reported by Dr. Balbirnie, "narcotic injections" were ordered by the physician; and as immediately afterwards especial mention is made of "uterine injections" in the private cases of M. Tealier, it is fair to infer, that the narcotic injections referred to above, were merely vaginal, thus establishing the fact, that throwing fluids into the cavity of the womb is by no means a general but a rare treatment. Further on, indeed, M. Lisfranc says, "that sometimes these uterine injections stop the discharge suddenly, as in the male, or they act more slowly, in general requiring twenty or twenty-five days. On other occasions" (and these, I fancy, are not infrequent) "they convert the chronic inflammation into an *acute* one," (an event replete with danger, where the uterine mucous surface is its seat) "hence the treatment must be modified to the case, and usually twenty-five to thirty days are sufficient for a perfect cure." "As exceptions, there are two cases in which we should proceed with more reserve, viz., when these discharges are very ancient" (the examples in which, by-the-bye in England, such a remedy is generally thought of) "then they become habitual and necessary to the economy: and it is frequently impossible to supply their place," (this is a wise and extensive interdiction of uterine injections) "and imprudent to attempt it—more especially if the woman be old, feeble, or

have any tendency to scrofula. Intermittent discharges also require the same precaution, with respect to their suppression, as uterine flooding."

Inflammation of the cervix uteri.—As this affection is confined to the glandular part of the uterus, and as it is attended by a peculiar discharge which rarely forms a part of the common leucorrhœal secretion, it is entitled to distinct consideration. It is not always easy to distinguish it from inflammation of the surrounding parts, particularly when, having ceased to be an acute, it has become a chronic malady. Here the white opaque secretion, its distinctive sign, will be partially, if not entirely, lost, by its mixture with the thinner and more transparent secretions. In addition also, the local pain and tenderness on pressure, will be so much less than in the inflammatory stage, that the peculiar characters of the malady will be nearly destroyed. In recent and marked cases, its diagnosis is easy. Sir Charles Clarke is entitled to the praise of having first described the symptoms and treatment. Judging from the record of cases amongst the in and out-patients at Guy's, as well as from private practice, I cannot regard it as a very common disease. Many times, from the pain which patients in the ward have complained of low down about the sacrum and coccyx, and deeply seated behind the pubis, I have thought that there must have been inflammation of the cervix, and yet on examination, although the finger has been covered by a white secretion, there has been no acute suffering from pressure on the neck of the uterus. Out of nearly one thousand cases of sexual disease, treated at Guy's, I find inflammation of the os and cervix has happened only twenty times. It rarely occurs in single females, or before twenty, and is most common between this age and the period of catamenial decline. It is not dependent on peculiarity of constitution—the plethoric and robust being as frequently its subjects, as the delicate and irritable. I have several times observed it soon after marriage. Its pathognomic *symptoms* are the opaque white discharge and pains behind the pubis, and at the lowest part of the back and sacrum, aggravated by the muscular efforts necessary for the evacuation of the bowels and the bladder; in short, by any circumstance which causes pressure centrally in the pelvis. The constitution is rarely affected, if judicious treatment has

been early adopted. Where, however, there has been protracted neglect, it will probably have passed into a chronic state, and, in connection with inveterate leucorrhœa, may have induced excessive anemia. These symptoms—and, if married, pain during intercourse—first excite attention; their continuance, and, as concomitants, irritability of the bladder and rectum, constitute the disease. Generally menstruation is not deranged; occasionally, however, there is dysmenorrhœa or a scanty catamenial flow. Sometimes recovery takes place without any treatment; the symptoms gradually disappear, and the glandular structure again becomes sound. At other times the malady continues, notwithstanding the treatment; and some authors suppose, that from this chronic inflammatory action, tubercular deposit and cancerous disease may have their origin; but such serious results, probably, never occur, except where there is a latent tendency to structural and malignant disease. In that case it is easy to understand how repeated inflammation may induce morbid activity.

Causes.—Circumstances either of a constitutional, or local kind, which augment irritability, and produce in the cervix increased action. Cold, inordinate exertion, either physical, sexual, or mental, highly-seasoned food, late hours, and excitement, and amenorrhœa suddenly induced.

Diagnosis.—The local pain (pressure on the cervix producing it, while similar pressure on the immediately contiguous vagina, or on the body of the uterus, is borne without any suffering), and the white opaque discharge, enable the practitioner to form a correct opinion of the disease. In reference to the latter I may add, that it differs widely from the transparent colourless mucus of common leucorrhœa, and is not likely to be confounded with the watery, or purulent secretions, so frequently occurring in mixed and symptomatic cases.

Sir Charles Clarke characterizes the discharge "as opaque, and perfectly white." This is its usual colour, but in undeniable examples I have seen it of grey tint. He further says, "that it resembles, in consistence, a mixture of starch and water made without heat, or thin cream. It is easily washed from the finger after an examination; and it is capable of being diffused through water, rendering it turbid." Of the

latter part of the statement there can be no doubt, and the facility of mixture with water, certainly constitutes a ready and true diagnosis. Let it, however, be remembered, that this creamy discharge is rarely copious and free from admixture, except on rising from bed in the morning, the time which ought to be chosen for the vaginal examination.

Treatment.—The abstraction of blood, in the more serious attacks, is a primary measure. And as the best methods of doing this are pointed out at pages 110 and 111, the reader must refer to this part of the work, where he will also find directions for the bath and injections, which may be beneficially followed where the inflammation is not so severe as to require the loss of blood. The poppy hip-bath used for an hour, twice a day, soothes the pain and irritation better than any other remedy; and where this cannot be obtained, half a pint of warm water, or gruel, starch water, or poppy tea, may be thrown into the vagina several times daily—the prescribed precautions being taken to prevent its immediate return. As aperients, castor oil, or any of the mild forms prescribed in chapter 5, may be employed. Sometimes there is so much irritation about the bladder, that an opiate, or ten drops, two or three times daily, of the mist. morphiæ acetatis (vide page 129), may be administered, or an opium, or a belladonna suppository may be used. It is occasionally necessary to empty the bladder by the catheter; and rest in the recumbent position and spare and unirritating diet must be adopted.

Case 34.

It is unnecessary to narrate any cases of common leucorrhœa, either of the mild or acute kind, as these are so numerous as to be familiar to all.

INVETERATE LEUCORRHŒA.

July 10th, 1835.—Mrs. J. ———, aged 26, residing near Guy's Hospital, has been married six years, and has borne three children. Prior to her first confinement—immediately, indeed, after marriage—she

had leucorrhœa; but as it was attributed to the excitement of pregnancy, and ceased soon after delivery, no treatment was adopted. During both the subsequent pregnancies the discharge returned, and disappeared after recovery. She imputes the present attack to over-nursing, having suckled her last infant nearly sixteen months. The weaning occurred in January 1834, and since this time, now a year and a half, she has never been free from excessive discharge. Prior to the lengthened nursing she was remarkably healthy, "en bon point," and active; but for the last nine months her weakness has been extreme. She is anemiated and pallid, emaciated, and incapable of any exertion. She has lost her former animation, and sits or lies nearly the whole day on the sofa. Pulse 94, and feeble, skin cool and clammy; urine scanty, and of straw colour; appetite most capricious, and frequent vomiting after taking food. Sleeps well at night, and would do so nearly all day, if she were not frequently roused by her mother and children. Cough, pain in the side, and morning perspiration are absent, and none of her family have died of phthisis. The legs are œdematous, and the skin of the face and eyelids is extended and flabby. On the whole, there is more exhaustion, more complete prostration, than I have ever before witnessed as the consequence of leucorrhœa. On inquiry about the treatment, I found that many remedies had been tried, and although injections had been carefully used she had frustrated their beneficial effects, by always (day and night) wearing two thick napkins. Thus the generative organs were constantly heated by the thickness of the covering, and increased discharge was the result. It was with difficulty she was persuaded to use any further means, she was so determinately convinced that nothing could do her any good. She consented, however, to take the muriated tincture of iron, good diet, and ale, to use nitrate of silver injection three times daily, and, above all, to leave off the napkins. The discharge was usually thin and watery; sometimes viscid, and occasionally, for a few weeks together, purulent. It had, on several occasions, been streaked with blood; but there had never been any offensive odour. She had for many weeks abstained from intercourse. I was curious to ascertain its quantity, and as it was quite necessary to use six napkins in the twenty-four hours, she must, at least, have lost several ounces daily. It is not, therefore, at all surprising, after so protracted a drain, that her constitutional power was exceedingly impaired. Menstruation occurred every month, but so scantily, and so slightly sanguineous, that the leucorrhœa might justly have been considered as vicarious of the function. On examination, internally, by the finger, the vagina was found to be capacious, and so relaxed that there were many folds

partially filling up its canal, and a thin secretion bathed its entire surface. The cervix was larger, but not tender, the os patulous with thickened edges, and the whole of the parts exceedingly moist and soft. The body of the uterus, examined by the rectum as well as by the vagina, appeared more voluminous than natural, and approached nearly to the os externum. I could not discover any ulceration, although at the upper and posterior part of the vagina the surface was rather rough, uneven and pulpy.

It would be tedious to narrate, day by day, or even week by week, the effects of the remedies. The principal benefit seemed to be derived from the various preparations of iron, and the frequent use of injections, particularly of the nitrate of silver. These had been employed by her previous attendant; but as he had seen her only at distant intervals, their use was not steadily adhered to. I was more fortunate, as I visited her very frequently on my way to Guy's, and insisted, as the condition of my attendance, that the treatment should be strictly pursued. At one time we were compelled to give up the injections for a few days, as they produced soreness, and she was tired of their use. At another, the iron was temporarily laid aside, quinine and gentian, or zinc and hop, being substituted. The local salt shower-bath over the abdomen and hips was extremely beneficial, and she expressed great satisfaction on finding that she was gradually acquiring tone and strength from its daily use. At first it was employed tepid and subsequently quite cold; and she was rubbed dry afterwards by towels impregnated with bay-salt. The lower part of the body acquired warmth by these frictions, and her whole appearance began to improve. The injection was ultimately used, at 60 grains of the nitrate to ʒxvi. of distilled water. The napkins were entirely and most beneficially abandoned, — frequent ablutions and clean linen being their substitutes. In chronic and inveterate leucorrhœa the wearing a protection of this kind, and sometimes a pad, which is still worse, perpetuates the disease. And now, in every case, I am particular in my inquiries on this point. At the expiration of eight months this patient had menstruated healthily three times, and she had regained much of her former health. She visited Brighton for several weeks, and in about twelve months from my first seeing her, she had perfectly recovered. I hear that she has since borne another child.

This is an instructive, because it is not a very rare case of aggravated leucorrhœa. Over-lactation and frequent pregnancy are almost sure, sooner or later, to be succeeded by excessive mucous secretion. Whether it shall be protracted to exhaustion, will

greatly depend on the attention and influence of the practitioner. If he regard it as a matter of little moment, it will be allowed to persist, and eventually, similar results to those pointed out, will occur; if, on the contrary, he have sufficient weight to convince the patient of her situation and its certain consequences, if the discharge continue, then remedies will be promptly and efficaciously administered, and the disease will be either cured or relieved.

Case 35.

CHRONIC LEUCORRHŒA, ATTENDED BY ACCUMULATIONS OF PURULENT FLUID.

August 1835.—Mrs. ——, æt. 38, a widow, and formerly an out-patient of Guy's, was sent to me by Mr. Morgan, one of the surgeons. The history of the case is as follows: She has, up to the commencement of the disease (nearly three years since,) enjoyed excellent health. As a girl she was always vigorous, menstruated regularly, and was capable of great exertion. Subsequent to her marriage, in her twenty-fourth year, she was robust and plethoric, having children quickly, nursing them without difficulty, and improving in strength. She has now (1835) been a widow four years, and for the last three, has suffered from leucorrhœa. When first noticed, it occurred a few days before menstruation, and was not present again till the return of the catamenia. It was so slight, that no means were used. Subsequently, however, it continued throughout the month, and soon became excessive and acrimonious. Occasionally it has been purulent, often mucopurulent, and slightly odorous. In July 1834 the discharge began to lessen in quantity and became thicker, to use her own words, "like matter." In a few days more, the leucorrhœa seemed entirely to have disappeared, but not satisfactorily, as there was pain and fulness about the lower part of the belly, and especially about the neck of the womb. She had frequent calls to empty the bladder, there was ardor urinæ, and feelings of tension and weight within the pelvic cavity. The greater number of these occurrences was entirely new; for, although she had frequently, when the discharge was purulent, suffered from vaginal irritation, heat, and pain, yet the symptoms just described were so different, that her attention was painfully excited. The surgeon then in attendance gave

saline aperients, enjoined rest and spare diet, and recommended the warm hip-bath. On one occasion, a few weeks afterwards, when she was getting out of bed, she felt something suddenly give way within her, and there immediately escaped from the vagina a quantity of offensive matter. She fainted, but was quite relieved. The discharge continued purulent for a week, when the usual thin and mucous leucorrhœa returned. This process had been repeated several times prior to my first visit. August 10, 1834. She was then recovering from one of these escapes of purulent matter, and was feeble and altogether ill. Tonics, good diet, porter and wine were allowed; and in a few weeks the secretion had again become muco-purulent, but more excessive than formerly. At this period I examined, but there was no trace of altered structure. The os was more than usually patulous, and the whole of the parts within reach of the finger were softened, probably by the constant discharges. In a little more than three months, (Nov. 20, 1835) menstruation having been suspended eight weeks, re-accumulation again took place, and on examination, I was struck with the increased bulk of the uterus. The cervix was tender to the touch, and the os was more closed than natural; still, at the lower, (whatever it might have been at the upper part of the channel of the cervix) it was not completely occluded. There was, however, a firm, tense condition of the neck, as well as of the body of the womb, and the vagina was rather hot, although still moist and painful on pressure. There was considerable febrile excitement, and the patient was in bed. A few days afterwards the gush occurred, and by measure, it was ascertained, that seven ounces of fluid, possessing all the characters of true pus, not at all streaked with blood, had escaped. Twice afterwards this series of morbid actions was gone through, and on one occasion I was present when the matter escaped. It amounted to half a pint, and was certainly fetid. Her general health had improved, and the leucorrhœa in the intervals had slightly diminished. Iron in various forms and doses had been given, and once I pushed the blue pill sufficiently far to affect the gums, gentle salivation being kept up for several weeks. The nitrate of silver in solution had appeared sometimes as though it would entirely cure the affection, but the discharge again and frequently returned. Under these circumstances, I proposed the injection of the uterus. It was carefully done, by throwing in some portion of an ounce of warm water, with three grains of the sulphate of zinc. There were no immediate effects; but in about six or seven hours, there was agonizing pain in the uterine region and internally, tenderness on pressure nearly over the whole abdomen, but especially at its lower part; a quick, hard pulse; and in fact all the symptoms of hysteritis. The measures described at page 156 were

pursued; but I was so fearful of an unfavourable result, that fifteen ounces of blood were abstracted, calomel and colocynth purges, and subsequently a full opiate, were given. After these measures the symptoms slowly subsided, and I had the satisfaction to find, in two or three weeks, that she had scarcely any remnant of the disease. This apparent cure was but of short duration. The same discharges again returned, and she left town for the sea-side. She resided there many weeks, was considerably improved, and married. Pregnancy quickly occurred, and when I last heard of her, she had not suffered any return of this distressing malady.

Case 36.

LEUCORRHŒA, ACCOMPANIED WITH PURULENT DISCHARGE.

REPORTED BY DR. JOSEPH RIDGE.

Marianne B——, aged 19, of florid complexion, ordinary stature, and sanguineous temperament, was admitted in July 1836, into Petersham Ward. She had been in service, and had enjoyed good health, until eleven weeks since, when she began to complain of uneasiness in the hypogastric region, with severe pain in the right groin, increased towards night. This was accompanied with a thick, yellow, and very fetid vaginal discharge, which has continued up to the present time. The catamenia have not been arrested; and they appeared a fortnight before admission.

Her general health has suffered: she feels weak, and indisposed to exertion. There is a profuse purulent secretion, which comes on at intervals, especially after exertion. On getting out of bed, or in endeavouring to evacuate the bladder or rectum, it passes per vaginam, by gushes, being preceded by a cessation for some hours. Occasionally, it continues for two or three days together; and then ceases, until its accumulation is relieved by a sudden flow. She has lumbar pain, and occasionally a distressing sense of fulness and bearing-down in the uterine region. Sometimes the pains are severe and lancinating, extending to the pubes and groins: bowels costive: tongue slightly furred: pulse rather full, and moderate.

These symptoms continued for several weeks, with but partial amelioration. The purulent secretion was, at intervals, diminished; but soon afterwards recurred, in equal quantity. She passed over two ca-

tamenial periods; and the discharge appeared to be intimately mixed with the sanguineous flow. Some shreds of membrane were discovered, being preceded by more than usual pain.

The treatment consisted in the exhibition of laxatives, with occasional topical bleeding, and sedatives to allay constitutional irritation. An opium suppository was used, with a belladonna plaster to the loins. Injections of an astringent kind, variously modified, with the hip-bath, were employed, but with little advantage.

The obstinacy of the disease, and the marked debility accompanying it, determined Dr. Ashwell to inject the cavity of the uterus with tepid water. This was effected by introducing a gum-elastic catheter with an open mouth, the edges being smooth, within the cervix, and propelling the fluid through its tube. Considerable pain over the pubes followed, which was relieved by anodyne fomentations. The discharge greatly abated, and a second injection was ordered. This was followed by more severe symptoms, and marked evidence of hysteritis; which was relieved by bleeding, both general and local, purgatives, fomentations, and a strict antiphlogistic regimen. The discharge ceased with the cure of the hysteritis; and in a few weeks she was presented, feeling quite well.

I was not prepared for so alarming an attack of inflammation, as the consequence of the injection merely of warm water; although in several instances, and especially in the somewhat similar one already related, hysteritis of marked severity followed the use of a weak solution of the sulphate of zinc. The remembrance of this induced me to employ tepid water only. It is well known, that in extensive uterine hemorrhage, cold water, and water variously medicated may be safely employed. But in most of these cases, as already observed, there is at least no evident and probably no real disease of the lining membrane.

Case 37.

This, and the following case, are extracted from Dr. Balbirnie's work, page 129; and I present them here to convey to the reader an accurate idea of the way in which uterine injections are employed by M. Tealier, and perhaps in French practice generally: they are described in the work of this physician on Cancer of the Womb.

Considerable tumefaction, without induration of the neck of the womb—dilatation of its orifice—profuse leucorrhœa—*injections into the cavity of the womb*—cure.

Madame R——, aged thirty years, having had two children, of which the youngest is four years old, lively and irritable, experienced since a year that she had quitted Geneva, her native country, to live in Paris, all the symptoms of uterine catarrh : dull pain in the hypogastrium, in the loins, and in the groins, where she experienced disagreeable draggings when she stood for some time; a weight on the perinæum, which rendered long walks painful, and sometimes impossible—a continual and abundant discharge from the vagina of a thick, yellowish brown mucus, or of a glairy matter, like the white of egg, on which were remarked sometimes spots of blood. Painful and habitual constipation—loss of flesh—febrile pulse; the menses having experienced no derangement. To the touch the neck appeared soft and voluminous; and the uterine orifice, much dilated, admitted easily the point of the index finger; all the surface of the os tincæ was covered with a thick mucus, which, when wiped away, presented a greyish white colour, contrasting with the red tint of the uterine orifice; slight lineary excoriations were observed in the direction of the cavity. On pressure being exercised with the speculum on the body of the womb, a considerable quantity of thick mucosities issued from its orifice—pressure with the finger and the speculum was painful—the neck was an inch above the perinæum.

Bleeding from the arm, to the extent of eight ounces, was practised; and, during eight days, injections of the decoction of the mallow-root, and poppy-heads, baths, a mild regimen, and rest, were prescribed. When the pains of the womb were calmed, these emollients were replaced by a decoction of a handful of soot in a pint of water, with which, each morning, three or four injections were made into the uterine cavity, by means of a gum-elastic catheter, introduced by one of its ends into the orifice. These injections were performed with facility, and without occasioning pain. After having withdrawn the catheter, a pledget of charpie, imbibed in the same decoction, was left upon the neck until next day.

This treatment was continued during fifteen days, after which they were then stopped, in order to ascertain the state of the discharge : it had almost entirely ceased. Injections, nevertheless, were continued every two days during a month. The patient then no longer experienced any of the symptoms mentioned, and all treatment was suspended. The health of Madame R—— has not been deranged anew

for a year succeeding to this treatment. She experiences some leucorrhœa from time to time, to which she has been subject from her infancy, and which does not constitute in her a diseased state.

Case 38.

Soft engorgement of the neck of the womb, bleeding on the slightest pressure — habitual leucorrhœa — orifice of the neck largely opened — superficial erosion on the posterior lip. Infecundity, the consequence of this morbid state, removed by its cure.

Madame L——, aged thirty, of good constitution, and having had only one child, ten years ago, was tormented with an habitual leucorrhœa, with a feeling of weight at the womb, and some occasional darting pains, which seemed to pierce it. Eighteen months ago, eight days after the cessation of the menses, there commenced an oozing of blood by the vagina, which was very inconvenient to the patient. The discharge had continued several months, when medical aid was had recourse to, in the month of August, 1834.

This lady had been for some time the prey of sadness, from certain painful circumstances, and under the influence of which her indisposition had made sensible progress. On examination, the belly was found voluminous, and painful, on pressure. The pain was especially felt behind the pubis, in the groins and loins; it was dull and deep; at times it had the lancinating character: the uterus was enlarged, sensible beyond the vaginal insertion, and descended to within two inches of the os externum; the neck to the touch was soft and spongy. Seen by the speculum, and compressed by the instrument, it allowed to exude from all its surface a great number of drops of blood; the edges of its orifice were tumefied, and of a lively red; on the posterior lip there existed a small ulceration, somewhat deep. A yellowish white discharge, proceeding from the uterine cavity, impregnated all these parts, and contributed to keep up the soft flaccid state of the tissus that was present.

The patient being removed from the menstrual period, and presenting all the appearances of a strong constitution, blood was immediately drawn from the arm to the extent of twelve ounces. This bleeding, renewed three days after, stopped the discharge of blood; but the leucorrhœal flux continued in great abundance. Injections with soot water were carried, as in the last case, into the uterine cavity; they were continued during three weeks, at the end of which time the leucorrhœal

discharge had almost entirely ceased: the womb was returned to its normal state. During these three weeks there had not appeared a single drop of blood. The menses flowed then regularly; and after their cessation, the os tincæ was found firm, and permitting no more the exhalation of blood; its orifice was sensibly contracted, and the leucorrhœal discharge almost gone.

M. Tealier has informed us that this lady, who had been barren from this cause for nearly ten years, immediately afterwards became pregnant.

Case 39.

LEUCORRHŒA, DIAGNOSIS DIFFICULT FROM GONORRHŒA.

OCCURRING IN THE PRACTICE OF MR. TRACY OF CORK STREET.

May 1840.—Mrs. ——, æt. twenty-three, has been married three years, and since the birth of her first child, now eighteen months ago, her health has always been delicate, and six months since leucorrhæa appeared. She visited Cheltenham in February 1840, and after an absence of some weeks, during which her health was greatly improved, she returned home. The discharge was at this time watery and thin, although diminished in quantity. Intercourse was resumed, and, as its consequence, the husband had all the symptoms of gonorrhœa. In this case the reputation of both parties was undoubted; but still the secretion from the male urethra continued for ten weeks, notwithstanding persevering and active treatment. Eventually he was cured by steel and a mixture of copaiba mucilage and liq. potassæ, with the oxymuriate injection.

CHAPTER VIII.

OF THE DISORDERS ATTENDANT ON THE DECLINE OF MENSTRUATION.

It is impossible, within a reasonable space, to give a correct definition of these important affections; although it is by no means difficult to furnish in detail an accurate and condensed account of them. I shall therefore, after a few preliminary observations, describe them in something like the order of their frequency, beginning with the more common, and concluding the summary with the more dangerous deviations. It has become too general an opinion, that the decline of this function must be attended by illness; but this is surely an error; for there are healthy women, who pass over this time without any inconvenience, and many whose indisposition is both transient and slight. That this does not more constantly happen, arises from the fact, that nature and health are often sacrified to fashion and luxury. I have already explained (at page 23), in reference to the physical education of female youth, how injuriously the national practices affect the establishment of the function. The almost entire neglect of out-of-door exercises and sports, the substitution of prolonged in-door studies, by which both mind and body are prematurely exhausted; a farinaceous and vegetable, instead of an easily digested and nutritious animal diet; clothing inappropriate to our changeable climate, and many other circumstances too numerous to be recounted, are productive of results in early life conspicuously inauspicious and hurtful. Only let this enumeration be completed by the subsequent histories of marriage and child-bearing, and we shall be convinced, that the ills attendant on catamenial decline, are attributable not to necessity, but mainly to habits, unwisely begun, and still more unwisely continued.

Females themselves anticipate this period as extremely eventful, denominating it "the critical or dodging time,"—"the turn

of life," &c. Nor can it be denied, that they often have sufficient reason for their anxiety. With the extinction of this extraordinary secretion, the reproductive faculty dies—an event of itself of sufficient magnitude in the life of a woman, to give to this epoch an emphatic interest. The consequences may be injurious at any time of life, where even a slight evacuation is suddenly stopped; for although it was originally excessive and morbid, such a process eventually becomes so habitual and necessary, that it cannot be safely done away, without either preparatory antiphlogistic treatment, or the institution of some compensating drain. I have, in an appended note, for which I am indebted to Dr. Stroud, given an extraordinary analogous illustration occurring in the other sex. There are few practitioners who could not verify the statement from their own observation amongst females.*

We cannot, therefore, be surprised, especially where luxury and dissipation, or penury and disease have already injured the constitution, that the cessation of two such prominent functions of the female economy, as menstruation and reproduction, shall be sometimes accompanied by serious changes in the nervous, vascular, and digestive systems. Let it, be remembered, also, that these are the distinctive functions of the sex, exerting for many years a marked influence over their health, and giving even to their disorders a peculiar character—not lost till after their final decline. And yet it must not be supposed, that the effect of these great changes is always morbid. Sometimes it is quite the reverse; for there are women who have never been vigorous and well during the middle period of their lives, and some who have suffered from protracted illness or chronic uterine

* Case of Frederick P———. A young man subject to plethora, and to large discharges of blood from the nose every spring, having for some time laboured under mental vexation and anxiety, missed, during last spring (184-), his usual epistaxis. He became somnolent, morose, and dejected, and at length, after some bodily exertion, fell into a sort of fainting fit. Under the direction of Mr. Symes of Tavistock Square, he was largely bled, with apparent relief. Having been placed in bed, he lingered for some hours, with a sense of weight and oppression about the heart, which gradually terminated in death. On inspection of the body, about three pints of partially coagulated blood were found in the pericardial sac, having been discharged from a ruptured aperture in the superior cava, which would admit the finger. With this exception, there was no other disease, either in the heart or elsewhere.

maladies, who after this time acquire what they term, "a settling of the constitution," and good health.

If the affections accompanying catamenial decline be classed according to their frequency, there can probably be little if any doubt, that—

Functional derangements of the brain and nervous system, are the most numerous.

Next in amount *are the cases of increased action and congestion of different organs.*

And, happily, amongst the least common, are *lesions of structure and malignant disease.*

A train of symptoms, fairly to be denominated nervous or hysterical, so often accompanies the change, even when most favourably accomplished, that it excites but little attention, if some single symptom or the entire affection is not of unusual severity. Timidity, a dread of serious disease, irritability of temper, a disposition to seclusion, impaired appetite and broken sleep, with physical weakness and inquietude, are common indications. Women are aware that such symptoms may be expected to occur, and they are in consequence alive to their approach. Of course the cessation does not always take place in the same way. Occasionally, but very rarely, it is sudden. The individual having arrived at the usual age, anticipated menstruation is prevented by cold, fright, or by some illness. These circumstances, in earlier life, would have been followed, on their removal, by a return of the discharge; but it is not so now. Nature seizes this opportunity to put an end to the function altogether, and I have known several patients thus dealt with, who never had afterwards one hour's inconvenience. But a gradual extinction is much more common. One period being missed, there is a return; a longer time then elapses, and there is perhaps an excessive return; afterwards some months may pass away without any appearance, then there is a sparing secretion; and in this way the discharge, sometimes amounting almost to a flooding, and again being so scanty and so slightly sanguineous as scarcely to attract notice, altogether disappears. I have already, at page 142, mentioned the different ages at which the cessation takes place; and as to the time occupied, it is nearly impossible to afford any precise information.

Some females pass over the period in a few months, others are irregular for a much longer time, and I have known instances where several years have intervened between the beginning and completion of the change. Hysteria, of marked intensity, not infrequently exists, and in two patients formerly under my care, a stranger, seeing the extent of mental aberration, might, without careful investigation, have concluded, that they were really insane. In one of these instances, a physician attending in my absence, strongly urged restraint and removal. Soothing, temporising treatment, however, must be adopted in these cases. Irritability is their prominent feature; and as the cessation is a process of nature, it is important that its completion should neither be hastened nor delayed by inappropriate management.

The examples are not rare, where *increased action and congestion occur as the result of catamenial decline.* We do not expect to find delicate women thus suffering, but those who have been plethoric and healthy; who have indulged in good diet and wine, or malt liquor, are exceedingly prone to such affections. Nor must it be forgotten that the tendency often continues for months, and sometimes for years after the entire disappearance of the secretion. Every one at all observant of female diseases, must know that women who have been healthy prior to this change, often become corpulent after its completion, and are more than usually liable to attacks of apoplexy, paralysis, pulmonary obstruction, and cough. Thus affording an illustration of the remark, the correctness of which cannot be doubted, that while certain morbid conditions of the cerebrum produce emaciation, there is another series, amongst which the influences in question must be placed, which induce repletion and obesity. Head-ache then, sensations of fulness about the cerebrum, throbbings of the carotids, and visible distension of the superficial veins of the temples and neck, ought always to excite watchfulness if not apprehension. Cases of partial apoplexy and paralysis do occur as the result of neglected amenorrhœa in earlier life; and several times I have been struck with the relief afforded to affections of the brain, at this period, by an excessive return of the catamenial discharge. Affections of the skin, too, very difficult of cure, and sometimes almost permanent, are by no means rare. Evanescent erup-

tions about the face and upper part of the body are common. But there is scarcely any organ or part of the body, and the statement is particularly true of the uterine system, which may not suffer from acute or chronic inflammation as the direct or remote consequence of this great change. Hepatic derangement, and even disorganization, have been frequently attributed to this cause. I cannot, from my own observation, confirm the latter part of this statement, although I have known the liver, in common with the other chylopoietic viscera, seriously disordered.

A very few remarks will suffice on the *treatment* of these various sympathetic affections; and first, I must be allowed to state, that no more serious mistake can be committed, than to attribute any of them, without the most accurate inquiry, to debility rather than to repletion. Let it be remembered that an accustomed evacuation is about to cease, or has finally disappeared; that the patients have been previously healthy, and that the probability therefore is, that the weakness is apparent not real. If, for instance, because there is languor and inactivity, a slow pulse, torpid bowels, and depression of mind, stimulants and generous diet are allowed, some important organ will become congested—the brain or the lungs—and either suddenly fatal or structural disease may occur. I know not how often, but certainly very frequently, such errors happen; and it is, therefore, the more necessary to urge especial caution.

There are instances where too large bleedings have been practised, and where the antiphlogistic treatment has been too long pursued. In such, and in others, where the active symptoms have been subdued, or where from the commencement the disease has been of mixed character, modified measures must be adopted. Further loss of blood and the continued exhibition of cathartics will induce anemia, and extreme irritability, while a sudden and injudicious alteration of the treatment may irretrievably injure some weakened organ or part. Hence, it will be apparent that a middle and cautious course must be chosen. I have now under my care a lady who has ceased to menstruate for three or four years, and who, by the adoption of a spare and vegetable diet, and the almost daily use of purgatives throughout the whole time, has become gradually

so exhausted, irritable and neuralgic, that her life is a burden. Many months of watchful treatment will be required ere she can return again to animal food, on which the restoration of her health really depends. More need not be said on these important points. Where symptoms of plethora continue—and there are cases where on even the poorest diet patients will fatten—purgatives or mild aperients, occasional small general or local bleedings, exercise, and abstinence from wine, spirits, and malt liquor, must be strictly enjoined. On setons and issues great stress was formerly laid, but they are not often necessary. Where patients cannot be induced to live appropriately, but will gratify the appetite, at whatever risk, or where the brain is evidently the seat of frequent congestion, and serious symptoms are constantly present, such remedies are most desirable. Other measures of a derivative kind will naturally suggest themselves, as mustard hip-baths, and pediluvia, frictions, with stimulating embrocations, and the flesh brush, the continuance of sexual intercourse, and the encouragement, by any gentle means, of the catamenial flow.

At page 142, in the section on congestive menorrhagia, the probability of pregnancy is mentioned. Nor must it be forgotten that conception does occasionally occur when the process of catamenial cessation seems to be nearly complete. The practitioner will not, therefore, suppose, if the symptoms of gestation arise, that they must of necessity be fallacious. I grant that spurious or mistaken pregnancy is more likely; and many men have exposed themselves to ridicule by erroneous opinions on this difficult matter. More than this I need not say here, as in the "diagnosis of pregnancy from disease" the distinguishing marks will be fully discussed.

Lesions of structure and malignant disease.—There is an almost universal impression that organic maladies, especially of the breast and uterus, are more likely to take place at this than at any other time. I doubt whether catamenial decline, as it is a natural process, has anything to do with their original production; but I certainly think that the development of a latent tendency to disorganization may accrue from the derangement, especially where the uterus becomes congested, either as a consequence of a superfluity of blood for which there is no ade-

quate outlet, or as the result of a neglect of its proper local abstraction. Under such conditions, I can easily understand that tubercular or cancerous deposit, either in the uterine or mammary structures, shall receive a stimulus of growth, which may, unchecked, lead to rapid development.

It is scarcely requisite to urge a frequent inquiry as to the state of these organs, the breast may easily, if any suspicion exist, be examined; and although there may be obstacles in the way of vaginal investigations, they will readily yield if the necessity to the patient's safety be urged as their justification.

CHAPTER IX.

FORMULÆ OF REMEDIES.

The following prescriptions are selected from many which are generally used, and which I have been long accustomed to employ in the diseases of menstruation, characterized by profusion or excess, and in leucorrhœa.

[For the aperients and purgatives reference must be made to page 119.]

STOMACHICS AND TONICS.

I shall add only two additional formulæ:—

Form 46.—*Mistura Tonica cum Acido.*

Sir James Clark.

℞. Acid. Sulph. dil. ʒiv.
Syr. Aurant. ℥iss.
Aquæ Cinnamomi ℥j. M. ft. Mist.

Take one teaspoonful three times a day in a wine-glass full of water. If it be advisable, a pill containing one or two grains either of the sulphate of iron or quinine, with or without a narcotic, may be given with each dose.

Form 47.—*Mist. Ferri Tartratis.*

℞. Ferri Tartratis Ammoniat. ʒj.
Tinct. Aurant. ℥j.
Tinct. Card. C. ʒiv.
Aquæ destillatæ ℥vjss. M. ft. Mist.

Take one tea, dessert, or tablespoonful three or four times daily.

SALINES WITH PURGATIVES.

Form 48.—*Mist. Salina cum Acido.*

℞. Infus. Rosæ C. ℥viij.
Magnes. Sulph. ℥iv. vel. ℥viij.
Pulv. Potassæ Nitrat. ℈i. vel. ℈ii.
Acid. Sulph. dil. ℥ss. vel. ℥j.
Tinct. Digitalis ℥iss. M. ft. Mistura.

Two tablespoonfuls three times daily. If it be necessary to take the following pill frequently, the menorrhagic loss being excessive, it should be swallowed half an hour or an hour before the mixture. By this arrangement a considerable quantity of the acetate of lead may be exhibited, without the diminution of its beneficial, and free from the risk of its injurious properties.

Form 49.

℞. Plumb. Acetatis gr. i. ad. ii. vel. iii.
Micæ Panis vel. Confect. Rosæ Gallicæ qs. Ft. pilula.

ASTRINGENTS.

Form 50.—*Mistura Secalis Cornuti.*

℞. Tinct. Secalis Cornut. ℥iij.
Pulv. Potass. Nitrat. ℥j.
Aquæ Menth. Pip. ℥vss. M. ft. Mist.

Take one tablespoonful, one and a half, or two tablespoonfuls, every two or three hours; the dose being repeated more or less frequently, according to the urgency of the case.

Form 51.

Dr. Dewees.

℞. Spir. Æther. Sulph. C.
Tinct. Opii. āā gtt. xxx.
Aquæ Menth. Pip. ℥vij. M. ft. Haust.

One draught to be taken every hour, (in cases of alarming menorrhagia or profuse menstruation) with the following pill:—

℞. Pulv. Opii gr. ½.
Plumb. Acet. gr. ij.
Cons. Rosæ Gall. qs. Ft. pilula.

FORM 52.

Dr. Dewees.

℞. Infus. Rosæ. C. ℥j.
Elixir vitrioli ♏xx.
Magnes. Sulph. ℥iss. M. ft. Haust.

One draught to be taken every six hours with or without the lead.

FORM. 53.—*Mist. Terebinth. Comp.*

℞. Spir. Terebinth. C. ♏xv, xx, ad. xl.
Mucil. Acaciæ ℥vij.
Spir. Lavand. C. ℥j. M. ft. Haust.

One draught every four, six, or eight hours. I have given this with marked benefit in menorrhagia, where the loss is not excessive, but protracted, occurring in connection with leucorrhœa; a few drops of tincture of opium may be added.

FORM 54.—*Mist. Copaibæ Comp.*

℞. Balsam. Copaibæ ℥j.
Mucil. Acaciæ. ℥ij.
Sp. Lavand. C. ℥ij.
Mist. Camph. ℥v. M. ft. Mist.

One or two tablespoonfuls to be taken three or four times daily. The efficacy of this mixture is increased, if it can be borne on the stomach, by the addition of one or two drachms of the powder of cubebs. The tinctures of cubebs, cantharides, and capsicum, are frequently beneficial in protracted or dropping menorrhagia; and in chronic and inveterate leucorrhœa, fifteen or twenty drops of each may be administered three or four times daily in water, or in an ounce of mucilage. I have lately used the Extractum Hæmatoxyli, in doses of fifteen or twenty grains, three times a day; continued for several weeks; it must be suspended in water or mucilage, for if given in pills they become so hard that they will pass through the body unchanged, and without effect.

It is scarcely necessary to give the more common astringent lotions and injections, although I do not wish it to be inferred from the omission, that I think lightly of their efficacy. The compound alum wash, if well used, is one of the most valuable remedies of the kind we possess; but there are tedious examples of leucorrhœa, in which more powerfully astringent and stimulant means must be employed.

FORM 55.—*Injectio Astringens.*

℞. Decoct. Secalis Cornut. ℥xiv.
Argenti Nitrat. gr. xx.
Tinct. Catechu ℥ij. M. ft. Injectio vaginalis.

Four ounces to be used three times a day. The decoction of the secale is to be prepared by boiling one ounce of the bruised rye in a pint and a half of water, down to a pint.

FORM 56.—*Injectio Astringens.*

Dr. Copland.

℞. Inf. Quercus ℥iv. Pulv. Gallarum gr. xxx.
Tinct. Catechu ℥ij. Ft. Injectio vaginalis.

To be used once, twice, or three times daily.

FORM 57.—*Enema Astringens.*

Dr. Mackintosh.

℞. Plumb. Acetat. gr. xv, xx.
Aquæ puræ ℥iv. Ft. Enema.

To be used by the rectum once or twice daily.

FORM 58.—*Injectio Argenti Nitrat.*

℞. Argenti Nitrat. gr. xv. ad. ℥j.
Aquæ Rosæ ℥xvj. M. ft. Injectio vaginalis,

Three or four ounces to be used three or four times daily. In cases where an unhealthy condition of the vagina or cervix has been ascertained to exist by the speculum, or where, independently of such state, the discharge is inveterate, a much stronger solution is sometimes required, and with this by the aid of the tube, the diseased parts may be directly touched, or washed once or twice daily, a camel-hair pencil being

used for the purpose. In a protracted example of leucorrhœa lately under my care, the nitrate of silver was thus used, and with curative effect. Of all the mineral astringents it is the best. Dr. Jewel remarks, "that by some it is thought, that the checking of a vaginal discharge must be prejudicial. This opinion," he says, "is at variance with my own experience; but I would employ the nitrate of silver, not merely with a view of arresting the discharge, but to produce a perfectly new action, or new excitement, in the part from which the secretion has its origin. The mode I have adopted in the application of this agent, has been either to conceal it in a silver tube, as it is employed in cases of stricture, (except that the tube should be adapted to the size of the "argenti nitras,") or in the form of a solution, in the proportion, generally, of three grains to the ounce of distilled water, the strength being gradually increased. A piece of soft lint may be moistened with the solution, and introduced into the vagina, for a short period, several times in the day, or a bit of sponge, firmly and neatly tied to the end of a slip of whalebone, and well saturated with the solution, may be passed into the vagina, up to the os and cervix uteri. This can easily be effected by the patient herself. It is necessary that the application should be frequently repeated, or no permanent benefit can be expected. Should it become requisite to employ a strong solution, and to apply it to a certain part, or ulcerated surface, it can be accomplished with a great degree of nicety, by means of a camel's hair brush introduced through the speculum or dilator."

FORM 59.—*Injectio Ferri Sulphat.*

℞. Ferri Sulphatis ℈i, ℈ii. vel ʒj.
Aquæ distillatæ ʒxvj. M. ft. Injectio vaginalis.

Four ounces to be employed three or four times daily. I have of late discontinued the use of syringes, for vaginal injections; india-rubber bottles, fitted with ivory tubes, are far better: there is less difficulty in their employment, and they are not so apt to get out of repair.*

FORM 60.—*Injectio Sodæ Carbonat.*

Dr. R. D. Thomson.

℞. Sodæ Carbonat. ℈i, ℈ii. vel ʒj.
Aquæ Puræ ʒxvj. M. ft. Injectio vaginalis.

Four ounces three or four times daily.

* Patients should be told that the two last forms (58, 59) will spoil any linen which they may happen to soil, imprinting an indelible stain.

Dr. Thomson is said by Mr. Jones, in his "Practical Observations on the Diseases of Women," to have ascertained, by repeated experiments, that inflammation of mucous membranes always engenders a free acid on their surface, which acts there as an irritant increasing inflammation. To neutralize this, he makes use of the alkali. Mr. Jones confirms this opinion by stating, that whenever litmus paper has demonstrated the presence of a free acid, almost immediate relief has been obtained by the use of the alkali. So far as my exhibition of this remedy goes, it supports these views; certainly in several examples of acrimonious leucorrhœa, it has quickly relieved, and several times cured the malady.

FORM 61.—*Injectio Succ. Limon.*

℞. Succ. Limon. recent. ℥j. vel ℥ij.
Aquæ Puræ ℥xv. vel ℥xvj. M. ft. Injectio vaginalis.

To be used either warm or cold, as directed above.

Acetic acid in the proportion of half an ounce to a pint of water; nitric, or muriatic acid, ten, twenty, or thirty minims to a pint of water, may be advantageously used in protracted leucorrhœal discharges. Their effects will be either sedative or stimulant in proportion to their strength. In a diluted form, they will often soothe; whilst in greater intensity, they will not only stimulate, but induce excessive irritation. The sulphate of copper ℈i. vel ʒj. to a pint of water, or the decoct. secali, is often beneficial; nor must the injection of the black wash, or the oxymuriate lotion be forgotten. Electricity, and a blister to the sacrum, are valuable remedies; and I am anxious to give a place to the following excellent combination of Sir Charles Clarke:—

℞. Infus. Cascarillæ ℥j.
Aquæ Pimentæ ℥ss.
Tinct. Sabinæ C. ʒj. ʒiss. vel ʒij.
Syr. Zinzib ʒj. Ft. Haust.

To be taken three times daily.

CHAPTER X.

OF HYSTERIA.

DEFINITION.—*An assemblage of symptoms, generally in a paroxysmal form, simulating many and opposite diseases. Usually produced by functional derangement, the consequence of irritability of the general but especially of the uterine nervous system, attended by mental emotion, increased secretion of limpid urine, flatulent rumbling of the bowels, a sensation of a ball ascending from the umbilicus towards the œsophagus, a feeling of suffocation aud more or less convulsive spasm. It is often protracted, sometimes incurable, but never perhaps immediately dangerous to life, and it leaves, if any, very slight traces of its existence after death.*

It is difficult, within reasonable limits to present a correct and comprehensive exposition of this extraordinary disease. Still in a work devoted to maladies peculiar to women, hysteria ought to find a place—although I am confident I have seen marked instances of the affection in susceptible, but otherwise healthy males; it cannot therefore be regarded as exclusively belonging to the sex. Dr. Conolly, whose treatise on the disease is invaluable, concurs in this opinion, and it is also supported by many writers of respectability: Dr. Copland, in his learned and most extraordinary dictionary of practical medicine, says, "that he has never met with a case in which the complaint was unequivocally developed in men, but he has seen several nervous affections in males of a susceptible irritable temperament, weakened by disease or by over exertion which have assumed some of the characters of hysteria, particularly in its irregular or undeveloped state." Several examples of new forms of hysteria have lately been brought to light, and the unfolding of the nervous

system, must extend our knowledge of the space within which it may exist. Thus a correct idea of the nature of hysteria, is more important than an enumeration of its varieties: for although it is nearly impossible, or at least very difficult exactly to define what is meant by an hysteric affection, we may at least understand, that in every instance it comprises a series more or less regular and complete of symptoms, induced not by structural lesion, but by morbid action—hence it will be inferred, that its phenomena must be exceedingly various, and when it is remembered, that the uterus is supplied with nervous influence by the ganglionic system, we cannot wonder, at its diversified symptoms. Mr. Abernethy said that irritability was "little more than debility excited," and if this condition were constantly recognized — female diseases, dependent on irritation or of so mixed a character that neither inflammation nor debility predominate, would be more wisely treated, and instead of depletive and drastic purging, measures of an alterative and soothing kind would he curatively employed As society advances in refinement and luxury, such distinctions become more valuable. And in crowded cities, and manufacturing and thickly peopled towns, they are peculiarly important. Nearly all the viscera of the body may suffer from the hysteria; but especially the head, chest, and abdomen, and the uterine system is most frequently implicated. The description of an attack of hysteria, will give the best idea of its varied character, and afterwards, its more unusual complications, protracted duration and effects, may be explained. The paroxysm is easily excited, particularly where the disease is established. Inordinate physical effort and sudden mental emotion almost certainly induce it. A distinct hysteric fit generally begins, with painful sensations about the umbilicus; these, gradually and with rumbling noise, following the convolutions of the intestines, ascend through the stomach towards the throat, assuming at this part of their course a defined form and character, which the patient likens to a ball, and which, as it continues to mount upwards towards the œsophagus, appears to fill the whole calibre of the canal, and produces sensations of choking or even of suffocation. It seems evident, however produced, whether by action transferred from the

uterus or more directly through the nervous system, that there is at this period decided spasm of the passage. The paroxysm having proceeded thus far—the fit is at its height, and a burst of crying or laughter, of longer or shorter duration, and followed by a period of exhaustion, and by a large flow of limpid urine, terminates the attack, and the patient sometimes quickly and occasionally very gradually, regains her accustomed composure. There are many modifications of the hysteric seizure, often it assumes a more formidable aspect—the movements of the different parts of the body are convulsive and epileptic, the sobbing and laughing occur alternately, and with extreme violence — the heart may be seen to palpitate, the vision and hearing are impaired; the power of articulation is suspended, the patient is unable to move, and there seems to be profound syncope, and entire unconsciousness. This latter condition is occasionally apparent only, the patient after her recovery telling her medical attendants the substance of their conversation, during the attack; hence caution is requisite in the expression of any alarming opinion about the duration or danger of the affection. Several of the sphincters may be completely contracted, and the anus has been known to resist the introduction of a common sized enema pipe. The events now related form a part of most hysteric paroxysms, which in some women occur so often, and from such trivial causes as scarcely to excite attention: They, but slightly impair the general health, and are often so much under the control of the will, that they may be postponed or induced nearly at the pleasure of the individual. It is not therefore a matter of surprise, that sarcasm and irony should so often have been the means adopted for their cure. But it must be stated, that it is not always easy to distinguish hysteria from more serious diseases, and there are few practitioners, who have not occasionally been perplexed to determine whether certain symptoms were the accompaniment of the functional, or of a more serious affection. Sometimes the attack has so far exceeded the usual duration, as to excite real apprehension for the recovery of the sufferer, and to have made it difficult to determine whether the exhaustion and syncope, the feeble pulse and powerless heart, were not the consequences of a concealed organic

malady, rather than the effect of a comparatively harmless functional disease. Certain it is, that in some rare cases, after severe and repeated attacks, marked collapse occurs: such instances I have twice seen. The respiration was scarcely appreciable, the heart could hardly be felt to beat, the pulse was nearly gone at the wrist, and the surface generally and especially the extremities were so clammy and lifeless, as to remind me very strongly of cases of fatal flooding. Dr. Copland notices these forms, and says, "that some of the instances of supposed death, in which persons have narrowly escaped being buried alive, were of this kind; he further adds, that he has seen some examples of this *hysterical syncope,* so severe as to occasion alarm, and M. Villermay considers that death may supervene upon it." The distinguished anatomist Vesalius mistook such a case for real death, and having commenced the dissection of the body, the first incision roused the dormant life of the woman, and convinced the operator of his error. In the "Journal de Savans" for 1745, the remarkable case of the wife of Colonel Russel is related — who remained in a state of complete hysterical syncope for many days, and who would in all probability have been buried alive, had it not been for the devoted affection of her husband, who would not allow himself to be taken from her apartment, and thus separated from her supposed dead body.

If, as I believe, the disease generally has its origin in nervous irritation—that portion of the organic nervous system which supplies the organs of reproduction, being most frequently implicated, it is not difficult to understand, that the various diseases of menstruation, and the periods of the commencement and decline of this important function should most frequently be associated with its attacks—hence it may truly be inferred that the disappearance of the hysteria, will often be contemporaneous with the removal of these affections. This is true, but nevertheless it is equally so, that hysteria attacks women perfectly free from uterine derangement, some of the worst and most protracted examples having occured after the cessation of menstruation. Thus hysteria varies in its method of approach, its character, its severity and duration. In some individuals there are scarcely any

premonitory symptoms—the exciting causes suddenly producing the paroxysm—in the majority, headache, spasmodic twitching about the larynx, and a disposition to hiccup, and irritability of temper, precede the seizure for some hours, or perhaps for one or two days. In these latter examples, the hysteria might often be prevented. Not unfrequently, the disease is stationary as to severity, and after months or perhaps years continuance, the paroxysms and the health remain much as they were. This, however, is not always so; illness, domestic trials, or a severe disappointment in love, may convert a slight and regular hysteria into a malady resembling in many respects the convulsions of epilepsy or apoplexy. Still the previous history and a knowledge that the hysteric diathesis really exists will guide the practioner. In some of these complicated forms, there will be severe spasmodic constriction about the throat amounting almost to suffocation or at least to the strongest impression that it will occur, and lasting for many hours: in others, convulsive movements of the head and body, and of the arms and hands, are the most prominent symptoms. Occasionally in the hysteria of plethoric women, the respiration is so slow and laborious, the trunk of the body so stiff and motionless, the veins of the neck so much distended and the face so flushed or livid and swollen, as to induce a fear that apoplexy may supervene. The violent movement and efforts of the patient, and the increased action of the heart and pulse, aided by a knowledge of previous disease will guide both the diagnosis and the prognosis. There are examples of hysteria, where the symptoms scarcely amount to a distinct seizure; lasting for two or three days, or even for a longer time. These occur in individuals of highly susceptible temperament, who have long suffered from the disease, and who are, or think they are, the subjects of especial troubles: occasionally, the peculiarities of such patients are so marked and permanent, as to give rise to a belief, that insanity will take place if it does not already exist. These forms I have seen and their treatment has been difficult, several of them arose from disappointed affection and delayed marriage,—and were complicated with excitement of the sexual system, and local irritation of the uterus and its appendages. Occasionally also, dis-

tressing and intense headach, affecting only a small part of the cranium—a peculiar loss of voice and croupy spasmodic cough —induced by slight causes, such as atmospheric changes, an east wind — or unfounded apprehension, bring on an attack and constitute its diagnostic character. It were easy to amplify these complications, but enough probably has been done to furnish an instructive history of the disease.

Sir Benjamin Brodie has most beneficially directed professional attention to the affections of the joints in hysterical females, thus extending the domain of this proteiform malady. Nor must I forget to allude to those painful and irritable states of the breast so common in hysterical females, and almost uniformly associated with amenorrhea. I have seen the gland generally enlarged and indurated, and in two cases the hardness was so distinct and real, as to excite apprehension that it might have been malignant — in both, the hysteria had produced the irritation, — in one, it had assumed the form of irritable tumour, while in the other the irritation was more generally diffused. In two similar cases there was marked pain along the dorsal spine; and at the origin of the nerves, there was so much tenderness, that gentle pressure could scarcely be borne: spasmodic twitchings were the consequence of the examination, and the pain extended down the arm, even to the wrist. Generally, the cure of the amenorrhea or the removal of the congestion of the blood vessels of the spine, by cupping, or leeching, is contemporaneous with the dissappearance of the mammary affection.

It were easy to increase the number of these more anomalous affections, and thus to afford proof of the truth of Sydenham's observation, that hysterical disorders really constitute more than one half of all chronic distempers. He correctly remarks, "that hysteria is not more remarkable for its frequency, than for the numerous forms under which it appears, resembling part of all the distempers wherewith mankind are afflicted: for in whatever part of the body it be seated, it immediately produces such symptoms as are peculiar thereto; so that unless a physician be a person of judgement and penetration, he will be mistaken, and suppose such symptoms to arise from some essential disease

of this or that particular part, and not from the hysteric passion."

A brief enumeration of the various affections dependent on or associated with hysteria, will give the best idea of its proteiform character. In many instances, the hysterical phenomena are accompanied by pulsations of the aorta, so violent and circumscribed and recurring so frequently, and on such slight excitement, as to induce a fear in the patient's mind, that there must be organic disease. I knew one lady harassed by these beatings of the artery, for several years—the first attack having supervened after domestic trial and abortion. The affection did not cease till the final disappearance of the catamenia. Enormous and almost incredible development of air in the intestines, is frequent in hysteria; the accompanying dyspnœa, abdominal constriction, and pain are most distressing: and if eructation does not soon occur, spasmodic almost convulsive muscular action may take place: palpitation, flushing of the face, disturbed circulation, and a complete hysteric fit often succeed. Constipation, irritability of stomach, and vomiting—depraved appetite—and as the result of these morbid states, great depression of spirits, are common. Perhaps no function is more frequently disturbed by this extraordinary malady than the respiration; hurried, short, spasmodic breathing is excited by the slightest motion, or by the most trivial incident, if at all unexpected. A peculiar sonorous cough, accompanied by croupal breathing and apparently by a spasm of the glottis, is frequent amongst the hysterical. A severe and protracted case of this kind I saw lately with Mr. Law, of Finsbury Square. The paroxysms were easily induced: hurry and alarm, an east wind fatigue or an error in diet, were almost sure to cause them. The affection was however so well characterized, that the patient herself called it her "hysteric asthma." Depletory and antiphlogistic treatment is some times erroneously and injuriously adopted. Apparent obstruction or even closure of the gullet, the rectum or vagina, are symptoms of hysteria. Dysuria also, and indications of stone in the bladder, with disordered conditions of the urine are not unfrequent, and can only be referred to deranged function of the cerebrum or spinal marrow. Slight

jaundice, as an accidental complication of hysteria, accompanied with spasmodic pain in the region of the liver I have twice seen. In both cases the hysteric diathesis had long existed: mild aperients, sedatives, and a carefully regulated diet, were curatively employed. Sudden and violent attacks of general abdominal pain, and especially of colic, are met with; and from their severity and duration, often lasting for many hours and occasionally for several days, seriously perplex the practitioner. Bleeding and drastic purgatives do mischief; but narcotics and mild aperients, the latter frequently bringing away copious dejections of dark scybalous fæces, afford great relief. Disturbed sleep and occasionally after an attack, heavy sleep accompanied with snoring, are common to this class of patients. Hysteric hiccup is by no means rare, hysteric dysphagia, and spasmodic exclamation have been mentioned and illustrated by examples, in Dr. Bright's works. A point of consequence in these affections is their tendency to recur at stated intervals; a forgetfulness of which has sometimes led to their being improperly classed with ague.

Having thus described the symptoms constituting the hysteric paroxysm, I beg to observe, that the *hysteric diathesis*, deserves especial attention. A knowledge of its existence, either alone or complicated with real illness, often guides, not only the opinion as to the character of the malady, but the treatment also. It is difficult exactly to describe the nature of a pervading hysteria; and yet there are few observant practitioners who do not ascertain and appreciate its existence. Its diagnosis may not admit of easy explanation, but a conviction of its presence rests on the mind. In such instances, pain, which would lead an ignorant physician to bleed and give mercury; suggests to one better informed, the propriety of abstaining from both: If asked the grounds of his opinion, he will refer to a certain something pervading the whole series of symptoms, very different from severe inflammation. The pain may be acute; the pulse quick; the skin hot; and the entire system highly excited: still it is evident that there is something associated with all these indications of a transient and functional kind; an affection indeed of the nervous system, irritability and not inflammation. If he acts upon this convic-

tion, and does not bleed and purge, but soothes and supports, by narcotics and bland nourishment, the truth of his opinion becomes apparent and the result proves, that hysteria is very rarely either an active or dangerous malady.

Nor is the mind in these patients less susceptible than the body. Sydenham correctly and beautifully describes their temper and mental state. He says, "that upon the least occasion, they indulge terror, anger, jealousy, distrust and other hateful passions; and abhor joy and hope and cheerfulness, which, if they accidently arise, as they seldom do, quickly fly away, and yet disturb the mind as much as the depressing passions do, so that they observe no mean in any thing, and are constant only to inconstancy. They love the same persons extravagantly at one time, and soon after hate them without a cause; this instant they propose to do one thing, and the next, change their mind, and enter upon something contrary to it, but without finding it: so unsettled is their mind, that they are never at rest." Of course there are degrees in hysteria, and this picture is true only of the more established cases. Still it must not be forgotten how nearly the hysteria of some women approaches to insanity. Already, at page 199, under the head of catamenial decline, I have mentioned a corroborative fact; and I have now under my care a lady, whose hysterical headaches have been so frequent and intensely severe, as to have induced trains of thought so morbid, caprices so singular, and conduct so eccentric, that any one unacquainted with her real character, might at these times excusably suppose her to be insane. Dr. Conolly says "that cases of this kind approach near to insanity and, indeed, a mind subject to the violent agitations incidental to the hysteric constitution cannot be considered as perfectly sane. We would here beg to insert a caution to which the young practitioner cannot pay too much attention. We are inclined to think that cases of hysteria, in which the mind was principally affected, have occasionally been treated as cases of simple mania, and the patients placed in confinement with lunatics. Nothing more likely to have the most unfortunate effects upon the patient could possibly happen; and no care can be too great to avoid a

mistake, which would in all probability render such a case incurable and hopeless."

Hysterical patients entertain the most exaggerated idea of the danger of any new pain, or of any real or supposed disease with which they may be attacked. A morbid susceptibility pervades their entire nervous system, and they are in consequence the prey of many false impressions. Often have I been summoned most urgently in the middle of the night; and if I had believed even one half of the vivid description given by themselves of their sufferings, nothing short of a conviction of extreme danger or of approaching dissolution, could fail to have been produced.

In concluding this section of this most extensive subject; it is especially necessary to remark, that hysteria has its limits. And although I agree with Sydenham and with Sir Benjamin Brodie, as to the prevalence of the "hysterical constitution," still we must be on our guard; lest, misled by apparently fugitive, yet frequently recurring and hysterical symptoms, we sooner or later mistake diseases dependent on congestino, or on changes more decidedly organic, for hysteric, or functional maladies only. Mr. Goodlad has recently directed us to this interesting point, and has illustrated and confirmed the fact, that diseases long and injuriously believed to be merely hysterical, or in other words, dependent in a nervous system differently constituted from the majority; are really the product of inflammation, congestion, and effusion at the roots of previously irritated nerves: thus involving the vascular as well as the nervous portion of the animal economy. Dr. Conolly and every intelligent practitioner maintains such opinions: indeed the former expressly remarks, "that any function may, in the hysterical constitution, be readily disordered; as, the respiration, the circulation, the digestion of food: any part may be affected with pain and the usual symptoms of confirmed disease; and, at length the parts thus affected may really become the seat of inflammation or other disorder, and undergo a change of structure. For these ultimate results of hysteric disorder the physician should in all severe cases be prepared."

Mr. Goodlad's remarks are really valuable, but they do not

at all affect the views of Sir Benjamin Brodie; for, although the former author has recalled professional attention to a class of cases which he feared, perhaps unnecessarily, might, through deference to so high an authority, be overlooked or mistaken, still, to the distinguished surgeon already mentioned, belongs the credit of discovering, and especially pointing out a much larger series, dependent on functional derangement: and to be cured only by the utter avoidance of that depletion drastic purging, blistering, issues, and spare diet—so generally and so very injuriously practised in this class of affections, prior to the exposition of his opinions, and which Mr. Goodlad correctly advocates for the far more rare organic diseases he adduces.

Causes. — There are few, if any, points on which medical writers have been more agreed, than in attributing hysterical diseases to irritation of the uterus, as their sole primary cause. In this view I cannot entirely concur; for although it must be conceded that such a cause is more universal than all others, still hysteria has been seen in the male,—Trotter, Whytt, Ferriar, and Conolly, having recorded such examples; and instances are not wanting of its occurrence before puberty, (Willis and Conolly) and after catamenial decline. Dr. Bright, indeed, has published a decided case of nymphomania after cessation, accompanying uterine disease. Such facts are sufficient to prove that the uterus has been too exclusively regarded as the "fons et origo" of the disease. Any circumstances, and such are very numerous, capable of producing an excitement of the nervous system generally, or of any particular part of it, may lead to hysteria,—hence intestinal irritation frequently, and more rarely plethora, mental anxiety and impressions, sudden changes of atmosphere, and anæmia are exciting causes.

Dr. Conolly remarks—"of the predisposing cause we can only say, that it is a peculiar and constitutional susceptibility to impressions, with an inherent disposition to institute certain actions affecting particular organs and functions, the object of which actions seems to be the relief of the nervous system, sometimes by the equalization of the circulation. We are not more able to explain the form of these actions, or the hysterical

paroxysm which supervenes on the cerebral excitement springing from the primary irritation, than we are to explain the ordinary phenomena of laughing or crying, arising from a similar cerebral excitement, originating in impressions primarily affecting the mind."

Deranged menstruation is one of the especial causes of hysteria. Prior to puberty the disease is seldom seen; afterwards, up to forty-five, and sometimes beyond, it is common. It is, probably, most frequent from eighteen or twenty to about thirty, and from thirty-eight or forty to the period of menstrual decline. I have known several instances where hysteria occurred for the first time, at this latter epoch, but not more than a very few after the final disappearance of the catamenia. Already, at page 23, many circumstances of mismanagement in the physical and moral education of female youth, inducing chlorosis, are pointed out; and these also favour hysteria. A nervous, lymphatic or sanguineo-nervous and irritable temperament, a congested vascular system, with deficiency of tone and increased susceptibility to impression, predispose to the malady. Where plethora existed, the disease, in my hands, has been more severe and convulsive, than in females of spare or emaciated habit, where the truly nervous form generally prevails. Hysteria is more common among the higher and luxurious ranks of society than among the peasantry—although no class is exempt. Hereditary tendency; a climate like our own prone to vicissitudes; tight lacing or dressing, by which the digestive organs are displaced and intestinal irritation produced, may also be mentioned; anxiety, celibacy, and early widowhood; sexual excitement and disappointment; solitude and vicious sexual indulgences, diseases impairing the strength, frequent and disproportionate mental effort, and many other circumstances, may be enumerated as causes.

Pathology.—In every case of hysteria, it may be assumed, that there is disorder of the nervous system; although its precise nature and origin may not be easily recognizable. Much of what has been already advanced bears on the pathology of the affection, and if it be conceded as a fact, and few doubt it, that the hysterical naturally possess excessive susceptibility

of the nervous system, some advance will have been made towards the exposition of its nature. From the commencement of life, even in early infancy, a marked difference in the degree of sensibility exists. Some children are, to use a common but forcible expression, "all nerve," while others, and adults also, are almost stupidly insensible to influences of intense power. A physiognomist or phrenologist, would furnish a real or supposed elucidation of these distinctions, and it is certainly true, that these peculiar traits of nervous character are rarely lost; they grow and expand, so that in mature life their existence and indications are as distinct as in earlier years.

Nor is the nervous organization alone affected: the vascular system yields to the same predisposing causes. Thus, in some instances, it is difficult to determine the priority of affection. An irritable vascular, and a susceptible nervous organization, lead to different immediate results from the same causes. Thus worms—a flatulent or acid stomach may at one time produce as a primary effect, morbid excitement of the heart and great vessels, evidenced by palpitation, quick pulse, and a hot skin; in the train of which symptoms, extreme nervousness, or a regular hysteric fit of sobbing, crying or choking, shall occur. At another time, the hysteric seizure shall be the primary occurrence, and the vascular disturbance, secondary. Precisely the same diversity of consequences may ensue from a deranged uterus, or from sudden mental emotions; or the brain being disturbed by any of these circumstances, the spinal marrow and thence the nervous centres become affected; after which, according to Dr. Marshall Hall—the originality and extent of whose views are securing to him the praise he so richly deserves—the irritation will be reflected to the nerves of other parts. Thus, the original nervous susceptibility becomes the source of most diversified results. In some instances, and I lately attended a case of this kind with Mr. Leese, of Baker Street, the nervous centres are the seat of intense irritation, occurring with remarkable regularity, and producing a most painful affection of the intestinal nerves. In others, the primary irritation may be more widely diffused, and the organs of locomotion and feeling may be principally affected; fainting, unconsciousness,

and entire but temporary loss of the power of moving, being the result.

Nor must it be forgotten, that derangement of the stomach and bowels is not unfrequently the source of the irritation on which depends the hysteric attack. And this remark is not less true, even in protracted examples, where a too constant regard to the immediate hysterical symptoms has excluded careful inquiries into the state of the alvine secretions; the restoration of which to a healthy condition, has for a time at least, stopped the hysteric attacks.

The slight results of hysteria astonish us. It is often, perhaps generally, a protracted disease, and its phenomena are so violent that an inexperienced practitioner might suppose that it must compromise life; and yet in itself, it can scarcely be regarded as fatal. M. Louyer Villermay (Traité des Maladies Nerveuses, p. 70) has quoted an example, where a most violent hysterical fit ensued on the sudden suppression of the catamenia, in consequence of terror, which lasted for forty-eight hours, and nothing having been done for the patient's relief, she died on the third day, being only fifteen years of age. On dissection the stomach was found contracted; the left cavities of the heart were empty, as were also the pulmonary veins—whilst the right cavities, the pulmonary arteries, and the veins, were gorged with black blood, chiefly coagulated. The cerebral veins and the sinuses of the dura mater contained much blood; but there was no appreciable alteration of the brain or spinal marrow, or their coverings, or in the nerves. The uterus does not seem to have been examined:—whether, therefore, intense inflammation did not exist in its lining membrane is not known; but the ovaries were very large and firm, and enveloped in a partially transparent tunic. In the interior of the ovaries there was a large collection of round vesicles, filled with an abundant mucous fluid, which required for its escape the separate puncture of each vesicle.

M. Villermay adduces the evidence of Diemerbrock, Riolan, Vesalius, and Morgagni, in confirmation of similar morbid alterations, occurring in the ovaries as the consequence of severe and protracted hysteria. It must not, however, be assumed that

such changes are constant, for certainly, from the extreme unfrequency of a sudden termination of hysteria, it must be difficult to arrive at any positive conclusions. When death does occur, the hysteria will generally have become an accompaniment only of the fatal secondary malady; and any changes of the uterus or ovaries, where phthisis, dropsy, or atrophy may have supervened, will be entitled to slight regard, as evidences of the lesions induced by hysteria. Nor where congestion or inflammation of the brain, or apoplexy, have in connection with this disease suddenly terminated life, can much confidence be placed in any such changes.

It is, however, of great practical utility to remember, that where the hysteric diathesis really prevails, recoveries sometimes occur from states in which all hope has been laid aside. Thus paralysis, and difficulty of swallowing, and great debility, are extraordinarily recovered from; and, occasionally, when phthisis and the emaciation supposed to be its direct result, have reached an apparently hopeless point, the patient most singularly and inexplicably begins to recover. I have sometimes thought that an impression on the mind of the sufferer of the certainty of a fatal result, if the disease persisted, was the first link in the chain of events, marking a gradual restoration. I am too, quite certain, that the progress of diseases destructive to life, and especially of phthisis, is often slower in the hysterical than in any other class. These and other considerations establish the extreme importance of an accurate and comprehensive knowledge of the symptoms and varying aspects of hysteria.

Diagnosis.—The remarks already made sufficiently prove how essential it is to the comfort of the patient, and to the reputation of the practitioner, that he should distinguish hysterical affections from more serious maladies. A mistake may lead to fatal consequences. The regarding an acute disease as hysteria, and the conviction that hysteria is acute disease, are, although not equally, both dangerous errors. In the one, the only efficient treatment may be neglected till it is too late; and in the other, the patient's life may be hazarded by measures far too active for her constitutional power. Happily, diseases deci-

dedly inflammatory, are generally too strongly marked, to admit of frequent or serious doubt; but examples of mixed disease, affecting vital organs, not unfrequently happen, in which the utmost circumspection is required. Here the practitioner must pause before he determines; he must not be misled by the anxiety of the patient, or by her conviction that, because she suffers pain and breathes difficultly, and has a quick pulse, and is herself alarmed, that therefore active disease exists. But he must take each symptom alone; he must contrast what he has perhaps frequently observed in acute affections of the heart, brain, or lungs, or any other organ, with what he now sees; and if there be even only slight evidence of the hysteric constitution, or any marked deficiency or peculiarity in the series of symptoms, or course of the malady, there is sufficient ground for doubt. Under such circumstances, he may prudently wait a little, and such delay will probably show that the worst symptoms are transient, and quickly change, and that there are intervals of ease and exacerbations, rarely or never seen in true inflammatory affections.

A few cases thus studied from Nature herself, will furnish the materials of correct diagnosis, and enable the practitioner, by and bye, to distinguish many of these dissimilar affections almost at a glance.

Many attempts have been made to distinguish hysteria from epilepsy, the reason for which is obvious. Epilepsy is almost incurable—in the popular estimation, entirely so; and although a confirmed epileptic is not insane, yet epilepsy is so often associated with imbecility, that one cannot wonder at the anxiety in protracted hysteria accompanied by severe fits, on this point. It must too be remembered, that epilepsy, unlike hysteria, is assumed to be hereditary. Dr. Marshall Hall says, "that vast indeed is the distance which separates hysteria from epilepsy, yet how *similar* are the symptoms of the two diseases. There is *one* great distinction in hysteria: much as the larynx may be affected, it is never closed; in the former we have heaving, sighing inspiration—in the latter, violent, ineffectual efforts at expiration; in the former, the cerebrum and the true spinal

marrow are comparatively unaffected—in the latter, they are in a state of apoplexy and irritation."

The hysteric fit is seldom so sudden as the epileptic seizure, nor is the unconsciousness and deprivation of muscular power so complete.

In hysteria, the tongue is seldom bitten or protruded; nor is there much, if any, escape of frothy saliva. An epileptic does not laugh and cry by turns, as in hysteria, but is in a state of fixed, vacant distress. There is nothing feigned about epilepsy, and although hysteria cannot be regarded as a simulated disease, still it is often an exaggerated one: a remark entirely inapplicable to the more serious malady. After the paroxysm, the epileptic generally sleeps heavily; and during its continuance the pupils are for the most part insensible to light; neither of which circumstances appertains to hysteria. An epileptic sufferer never remembers what has passed during the attack; a fact not at all uncommon in hysteria. Epilepsy is most frequent in men, in whom hysteria is exceedingly rare. Sydenham always inquired, whether any particular disease affecting women had not first attacked them "after some disturbance of mind, or fretting." An affirmative reply doubtless strengthening the impression that the mischief was hysterical. All attentive observers, even though they are not medical, must be struck with the vacant and almost imbecile impression left on the countenance by repeated attacks of epilepsy. Nor can we fail to contrast the changeful, unquiet, and irritable expression of the hysterical, with the heavy and protruding eye, and the listless, dull physiognomy, of epileptic sufferers.

Hysteria seems to single out and affect every organ,—every function which belongs to the true spinal system. Like the emotions, it also affects the action of the heart, the secretions, and especially that of the kidney. Dr. Marshall Hall gives the following table of the parts, obviously under the dominion of the true spinal marrow, which are affected in this multiform disease.

"1. *The larynx*,—imitation of croup; apparently imminent suffocation.

2. *The pharynx*,—dysphagia.

3. *The respiratory organs*,—dyspnœa, cough, hiccough, retching, vomiting, &c.

4. *The cervix vesicæ*,—dysury, retention.

5. *The muscular system*,—trismus, tetanus, contracted hand, distorted foot, twisted legs, &c. The rest relates to emotion, which is the 'magna pars' of hysteria."

Between hypochondriasis and hysteria, the distinction is generally easy, although in some of the inveterate and complicated examples of the latter disease, its approximation to hypochondriasis is very marked. Still there are positive differences. Hypochondriasis is for the most part a disease of men, and rarely attacks the young; generally commencing with stomachic or intestinal derangement, and invariably accompanied by dyspepsia. Spasmodic disorder, so common in hysteria, is rare in hypochondriasis, while in the course of the latter, cerebral affection often becomes permanently established. In hypochondriasis the distress is more real, and the disturbance of functions, especially of the chylopoietic, more extensive, injurious, and permanent.

Treatment. — Few practitioners desire the management of hysteria. Its symptoms are so varied and obscure, so contradictory and changeable, that if by chance several of them, or even a single one, be relieved, numerous others almost immediately spring into existence; the whole aspect of the case is unexpectedly changed, and thus week after week elapses, without any permanent advantage having been secured; the treatment which seemed to promise well at first is given up, and the patient becomes irritable and desponding. Imagine this picture with many like variations, and the portraiture of hysteria is complete. It is not a matter for surprise, then, that medicine and one physician after another should be discarded, and that the disease should so often be permitted to take its course, only to be interfered with when symptoms of more than ordinary severity arise. Yet, although these remarks are true, there are examples which demand and are susceptible of beneficial medical treatment. But even these are not always easily understood,

and rarely admit for any lengthened period, of active, and certainly not of indiscriminate remedies.

That physician will treat hysteria best, who, having acquired a firm hold of the confidence of his patient, at once directs his attention to the influence of the mind and temper, and external things, on the general health; including the state of the nervous system, both general and uterine, nutrition, intestinal actions, and sleep. From such inquiries, a knowledge may be obtained of the origin, course, and complications of the malady; and a case exceedingly unpromising at first, may by treatment thus suggested and modified, be cured, or at least greatly relieved. But if such a course be neglected, and local symptoms alone be sought after and prescribed for, months and years may pass away, and the materia medica may be exhausted, without any permanent advantage having been obtained. Nor can it be denied, that in many instances, even when the most judicious means have been perseveringly employed, they have failed, and the case has in despair been resigned, as one over which medicine had no control.

To elucidate the treatment of the different stages and gradations of hysteria, the following arrangement may be adopted.

1st, *The treatment during the paroxysm.*

2nd, *The treatment during the interval.*

Of course, there are many circumstances which must limit and modify the remedial plan. These are, the origin of the malady, whether it depend on general nervous susceptibility, —or, as far more frequently, on uterine irritation,—or, perhaps, gastro-intestinal disorder,—whether the hysteria is associated with general or local plethora or anæmia,—the prominence of single symptoms, or of a series,—and the means most likely to prevent a recurrence.

Treatment during the Paroxysm.—Probably in the majority of regular hysteric fits, nothing is done, beyond the dashing of cold water on the face, and applying ammonia to the nostrils: the patient is either laid down on the floor, or on a sofa, and is pretty much left to herself. She has often been thus before, and as recovery has taken place easily, it is fairly presumed that the same results will occur again, if she be not induced to be-

lieve, by over attention, that the affection is either interesting or dangerous. Still it is important that the paroxysm be shortened, and that every measure be adopted to prevent accident or injury, from blows or falls. It has already been observed, that consciousness is generally retained, and enough of volition, excepting in convulsive and epileptic hysteria, to enable the individual to avoid danger; so that as the fit, by equalizing the circulation, and by removing nervous irritation, has upon the whole a beneficial effect, restraint need form but a small part of the treatment. A lady, whom I long attended, always rejoiced when the fit was over, because it relieved her system generally, and especially her brain, from painful irritation, which had often existed for several previous days. The means for preventing personal injury, will suggest themselves to every prudent practitioner, and need not be mentioned here; but it may not be irrelevant to remark, that in proportion to the degree of consciousness, the patient should be strongly urged to exert her own power of self-control, not only to shorten the continuance of the present, but also to prevent the recurrence of future attacks. Some individuals insist on the advantage of operating on the fears of the patient; and it cannot be doubted, that beneficial results have followed; but I have also seen alarming convulsions thus induced, and a regular safe form transmuted into anomalous and dangerous hysteria. Where the power of swallowing remains, half a pint or a pint of iced cold water will often shorten a fit which might otherwise prove long and severe; and in a confectioner's daughter, once my patient, this remedy alone was almost curative. Where there is flushing of the face, and any marked indications of general or cerebral fulness, the dashing cold water over the head and neck, and the application of evaporating washes, are highly useful. In spasmodic rigidity of the muscles of the head, neck, and upper part of the trunk, the power of deglutition is either greatly impaired, or altogether lost, and injections of cold water, or of spirit of turpentine and olive oil, (vide form. 38, p. 126) may be employed. Diffusible stimulants, such as ammonia, ether, valerian, lavender, and assa-fœtida, are often given, where the power of swallowing remains, and there is no plethora: occasionally they may be com-

bined with hyoscyamus, camphor, morphia, or hydrocyanic acid: the attack, however, is only shortened, not prevented, by these means. The prompt affusion of cold water over the face and head, when the fit is thought or known to be coming, and its injection into the rectum, and, according to Dr. Conolly, the exhibition of half a drachm of ipecacuanha, will often prevent its occurrence. It is rarely necessary to abstract blood during the fit, even in the comatose or epileptic form, excepting where plethora, with cerebral heat and throbbing exist, as the consequences of accustomed discharges now or lately suppressed. In such instances I have bled moderately with good effect, the patient declaring herself to have been unusually relieved. Generally, however, cupping between the shoulders, and this very rarely, will be quite sufficient.* The hot mustard bath as high as the knees, is a good derivative, and it is scarcely necessary to enjoin the loosening of every tight part of the dress: on some occasions I have known the attack quickly terminated by ringing a loud and shrill sounding bell close to the ear for several minutes.

General Treatment during the Intervals.

Hysteria dependent on a morbid state of the uterine system.—Such cases are, I believe, more numerous than all others; especially if the disorders to which uterine irritation gives rise, and which are often erroneously regarded as primary to the hysteria, be taken into account. Girls menstruating healthily, women married happily, and at a sufficiently early age becoming mothers, and nursing their children, are rarely to be enumerated amongst the hysterical; but girls, in whom chlorosis has delayed, and has perhaps, after all, permitted only the imperfect establishment of puberty and menstruation; women married late, or after great delay, and who, from disparity of age or mutual dislike, bear children at long intervals; and those who, either from the claims of fashionable life, or other insufficient reasons, do not suckle; young widows, and the single; in all of whom some uterine derangement may be suspected, and in many ascertained to exist: such individuals are the common

* If cupping be practised, the scarification should be made as low down as possible, as the marks of the incisions are never lost—a point of some moment to those who are anxious about their appearance.

subjects of the disease. Thus, if I were to select one organ as its peculiar seat, it would be the uterus. And if I were asked, what was the nature of the affection, I should express my belief, *that hysteria essentially consisted in excitement and irritation of the numerous and important nerves supplying the reproductive system.* The facts just mentioned, the history of numerous cases, and their cure, *frequently by marriage*, and never without a diminution of the uterine disorder, corroborate these views. Pinel, Villermay, Lobstein, Foville, Copland, and Addison, most ably support them. Willis and Georget, on the contrary, ascribe hysteria to disorder of the brain; and, in later years, Mr. Tate has contended, that it depends "on a morbid state of the spinal cord," but connected, nevertheless, "with disorder of the womb." Copland remarks very acutely, "that this 'morbid state' is but a vague generic term, and that most probably, even when it is most prominent, more of altered sensibility than of vascular or structural lesion of this part of the nervous system, constitutes its essence." However this may be, attentive observation of the morbid phenomena, especially at their commencement, will show that the spinal affection is merely a consecutive and contingent disorder, and one by no means generally, or even very frequently observed. M. Andral says, "as to my opinion respecting the seat of hysteria, I repeat, that it is a nervous complaint, and that its seat is the nervous system." I am aware it may be urged, in opposition to these opinions, that structural lesions of the uterus are very common in females who have never had hysteria. Of the truth of this statement, to its full extent, I am more than doubtful; as I have accurately ascertained, both in hospital and private practice, that such individuals are by no means, especially in early life, so exempt from this common malady; nor must it be forgotten, although there are exceptions, that these affections generally do not occur till the reproductive faculty is either about to cease naturally, or has become seriously impaired by the progress of these organic changes.

The precise treatment to be pursued, will mainly depend on the character of the uterine disorder. If chlorosis exist, those measures must be adopted which are calculated to improve the

general health, and which are fully described in the first chapter of this work. If amenorrhœa be the prevalent condition, its cure must precede the attempt to remove the hysteria. Dr. Conolly thinks that amenorrhœa is not a frequent concomitant of the affection, and perhaps he would be right, if he were to except the amenorrhœa of delicate and irritable females, in whom hysteric fits are common. Most frequently menorrhagia alone, or complicated with leucorrhœa, connects itself with hysteria, and little can be done for the cure of the latter affection, till the healthy uterine function is restored. In the chapter devoted to these diseases the appropriate remedies are pointed out. Sometimes a really irritable uterus originates and maintains the hysteric paroxysm; in which case there will be pain behind the pubis, and over the sacrum, and at the point of the coccyx; but especially will there be more or less acute suffering on pressure of the cervix uteri, whose congested and partially indurated condition, may induce a fear, that organic disease will ultimately occur. Cupping on the loins, leeches to the perinæum and about the verge of the rectum—but above all, leeches to and scarifications of the cervix itself, will afford the most certain and effectual relief. The poppy hip-bath at 96°, the patient remaining in it for an hour every evening, and a suppository of opium, or belladonna, at bed time, (vide formulæ) are admirable remedies.

Hysteria dependent on plethora.—This is not a common form, but examples do somewhat frequently occur, where a certain amount of plethora exists in connection with the hysteria, and which may be traced to scanty menstruation; a suppression of accustomed evacuations or discharges; the injudicious cure or spontaneous disappearance of eruptions; the neglect of proper exercise; much confinement to the house, and a too nutritious diet. It is not difficult to enforce the measures immediately necessary: one or two bleedings from the arm, to a moderate extent—cupping between the shoulders—smart purging and spare diet, will avert the dangers of impending hysteria, either of the epileptic, comatose, or apoplectic forms. Subsequently, the plan must be modified, and a few leeches once a fortnight or more frequently, behind the ears; perhaps an issue in the arm,

and a mercurial purgation once or twice a week will suffice. But animal food must still be taken only once in the day, early rising, sleeping on a mattress in a well-ventilated apartment, the daily use, or two or three times a week, of the tepid or cold shower bath, and more than all, regular walking exercise must be enjoined. Already have the evils been pointed out of walking or other exercise taken to excess; great and injurious fatigue is thereby induced; the patient thinks she cannot endure such an effort again, and she either gives it up altogether, or walks only at distant intervals; or if her station and means permit it, she rides henceforth, either in a carriage or on horseback, neither of which confers half the good to be derived from that exercise "which Providence evidently intended that man should take by means of his own limbs, and not those of another animal." Often do female servants become the subjects of this species of hysteria, in consequence of a sudden change from the hard fare and exertions of a country life, to the more animal and luxurious diet, softer beds and close apartments, presented to them in the houses of the rich.

Dr. Parry strenuously urges as an evidence of weakness of mind, the abandonment by the higher ranks of nearly all voluntary exercise, and the evils which must ensue from such frequent confinement in warm rooms, during so many hours of the night; which, as he remarks, "always imply so much time taken from the day, and from the animating but little heeded effects of light." He also notices the admonitory fact, "that singing birds and lap-dogs, which are confined and highly fed, are subject to the whole train of nervous affections, as palpitation of the heart, breathlessness on slight motion, *hysteria*, convulsions, epilepsy, hemiplegia, and apoplexy."

Hysteria dependent on debility.—It is in the management of this species of hysteria, that the fullest scope is afforded for the exercise of medical acumen. Local vascular excitement or congestion in the cerebrum, or in some portion of the spinal marrow, may coexist with constitutional debility; a condition requiring for its relief a nice adjustment of treatment. Thus, while it is essential to relieve an excited brain, or to unload the vessels of a congested portion of the medulla spinalis, the local de-

pletion and counter irritation must be the exceptions to the general plan of nutritious diet and tonic treatment. Were we, on the contrary, in addition to these local measures, to enjoin but little food, and drastic or saline purgatives, instead of relieving, we should aggravate the malady.

To modern pathology we are indebted for these important facts; nor have they been neglected by intelligent practitioners. The treatment of this species of hysteria has of late been conducted on right principles—being neither entirely tonic, nor entirely depletive; for it is now fully understood, that local congestion may arise from, and aggravate a constitutional disorder, dependent almost entirely on debility. To employ, therefore, irrespectively of such knowledge, either one plan or the other singly, would be to disregard these illustrative facts.

As to the stomachics, tonics, and aperients, best suited to hysterical debility, I must again refer the reader to the chapter on chlorosis, where he will find ample information. The waters of Bath, Pyrmont, Baden, Seltzer, Carlsbad, and various others, have long been recommended, and Sauvage particularly enjoins in chlorotic hysteria the tepid, sulphureous waters of Cauterets and Bagnaules, four pints daily for three days, and a bath on the fourth. The older physicians frequently prescribed a milk diet, and I have several times witnessed its good effects. Sydenham thought that great good was obtained by the infusion of various bitters in canary wine, and he advised hysteric patients to drink it largely at night before going to bed. He further says, "that the whole body was much strengthened, and such as were before cachectic became fresh coloured and brisk thereby." Horse exercise, change of scene and climate, sea bathing, and varied but active employment, have been already dwelt upon. Nor must it be forgotten, that powerful mental impressions often control and relieve, and occasionally cure the disease. A voyage or a journey full of romance and adventure; such an alteration of circumstances as may expose to more of the contingencies and difficulties of life, rarely fail to be beneficial. In the French revolution, the ladies of Paris, and in the Irish rebellion, the women of Ireland, subjected as they were to alarming excitements, forgot and laid aside their hysterical

affections, and Cullen noticed similar effects in the ladies of Scotland, in the civil war of 1745-46; and Dr. Rush also, in a curious paper "On the Influence of the American Revolution on the Human Body," observes, that many hysterical women who were much interested in the successful issue of the contest "were restored to perfect health by the events of the time, change of place, occupation," &c. There are, I suppose, few practitioners who could not adduce similar examples, and who could not corroborate the fact, that luxury and refinement almost invariably aggravate the disorder. Frank remarks, "that the wives of merchants are affected with hysteria in flourishing times—but when reverses come they have no time to be ill."

Hysteria dependent on gastro-intestinal disorder.—This section need not detain us long, as in other parts of the work it has been fully, although incidentally discussed (vide chlorosis and amenorrhœa). There are, however, two symptoms attendant on this form of the malady which really deserve especial attention; viz., distressing intestinal flatus, which is exceedingly common, and tension and tenderness of the abdomen generally; but particularly of the hypogastric region, which, although frequent, is more rare.

For the relief of the latter condition, I have long been in the habit of applying six or eight leeches, either once, twice, or even more frequently. Conolly has remarked, that where the lower part of the abdomen is tumid and uneasy, the leeches may with more advantage be placed around the orifice of the rectum. The distress induced by the flatulence, occurs generally after taking food, and deserves attention, not more from its accompanying painful distention, than from its so frequently inducing the hysteric fit. A small tumbler of water, as hot as it can be swallowed, during or immediately after the meal, with some powdered ginger, a little brandy, sal volatile, or a few grains of cayenne pepper entirely dissolved in it, seldom fails to afford relief; friction by the hand or flesh-brush over the abdomen; and in really severe cases, the injection of a pint of hot water into the rectum, with or without assafœtida, may be tried.

It is scarcely necessary to do more than mention the importance of a simple, nutritious, and a somewhat stimulating diet:

and if there be any suspicion that the hysteria is connected with the presence of worms, anthelmintics may be used, if the dietetic plans prescribed are not successful. In some cases, confined bowels seem to be the great cause; and there are few things more difficult of accomplishment, than by even the most judicious management of diet and medicine, to bring the intestinal actions into a regular and healthy state: still the effort must be made. The colon often contains large and unsuspected accumulations of vitiated fæcal matter, by which many hysteric paroxysms are induced: nor is it by any means an easy matter to excite the patient's attention sufficiently to prevent a repetition of this mischief.

Treatment of symptoms peculiar to Hysteria.—Enough, perhaps, has been already said to convince the reader, that he must not, in his admiration of scientific and comprehensive treatment, reject, in the management of particular hysterical symptoms, what may be deemed empirical modes of relief; for often, when the general health has been greatly improved, the hysterical headach, the hysterical asthma, and those hysterical and almost incurable pains in the side, described by all writers, still persist. Villermay, regarding hysteria as exclusively of uterine origin, most improperly neglects the state of other viscera, and all other than uterine symptoms. Georget, on the contrary, entirely negatives the uterine theory, and locates the disease in the brain, and hence most erroneously concludes that it is useless and idle to attend to the stomach, the bowels, the heart, or the uterus. The treatment of the former physician, therefore, is partial and inefficient; while that of Georget is absolutely absurd, for he gravely prescribes bread pills and water, and tisanes equally mild and harmless, for every form of the malady. It is hardly possible to believe that these able practitioners can have seen much of the disease, or, if they have, they must have observed it under the influence of the strongest prejudice.

For the measures most frequently affording relief in *hysterical headach*, I refer the reader to the chapter on Chlorosis; only premising, that certain remedies and plans of treatment ought not to be given up till they have been fairly tried, and even then, or when their advantageous effects appear to have been exhausted, their resumption at a subsequent time, is often benefi-

cial. At pages 16 and 47, I have carefully described the various forms of these hysterical headachs; and I beg to observe here, that of no other ailment connected with the disease, does the patient complain so grievously as of this, especially when it is protracted or almost constant. Several authors speak highly of the ammoniated valerian: in the following form I have often found it afford great relief: —

℞. Tinct. Valerianæ Ammon. Spir. Æth. Sulph. C. Spir. Lavand. C. āā ʒ ss. Tinc. Hyosciami ♏ xx. Mist. Camph. ʒ x. M.ft. Haust. 2da vel 3tia quâque horâ sumendus.

The good effects are increased by its being taken as hot as the patient can swallow it.

℞. Tinct. Valerianæ. ʒ j. Acid Sulph. dil. ♏ x. Tinct. Cinch. ʒ j. Aquæ Puræ ʒ viii. M.ft. Haust. bis, terve quotidie capiendus.

Many other similar medicines might be suggested, but it is scarcely necessary to detail them here; the practitioner will soon discover the very intractable character of the complication, and he will be on the alert either to find out new remedies, or novel combinations of old ones. In two instances, where every other measure failed, a grain and a half of blue pill, night and morning, were given sufficiently long to produce slight affection of the gums, and with decided relief to the headach. Occasionally the pain is so severe as to induce the patient to think that she shall lose her senses. In such examples, or where there is any threatening of phrenitis, a darkened room, absolute quiet, narcotics, hot or cold applications to the head (the former being frequently the most beneficial), and the encouragement of menstruation by mustard hip and foot-baths, are appropriate means.

After all, there is no complication more difficult to cure, even to relieve, than hysteria attended by *pain in the left side.* Mr. Tate has associated it with tenderness or inflammation of the spine and uterine disorder, giving the precedence to the former state. Doubtless, there are many corroborative cases; but certainly in some very bad and long continuing ones, I have failed

to discover throughout the whole column any indications of inflammation of the medulla or its coverings. To say that uterine derangement exists, is only to repeat what every one knows to be almost universally true.

Mr. Tate has furnished some very instructive and interesting cases, where there was great tenderness of the dorsal spine, and about the sacrum, and which were greatly relieved by the local treatment he pursued. But even this pathology, which seemed to promise much as the result of direct treatment, has shared the fate of previous theories. The affection of the spine, so well pointed out by this author, is not always inflammatory; frequently it does not pass the limits of excited sensibility, and several times I have seen the hysterical symptoms exasperated and the general health seriously impaired, by the leeching, blistering, and various kinds of counter irritation, which in obedience to this new and scientific view, were strictly and perseveringly, yet erroneously practised. Of course, the vertebral column ought to be carefully examined, and local measures must be beneficial, if there be marked tenderness and puffiness around one or several of the spinous or transverse processes. But even here it is necessary to be on our guard: if, during the examination, the pressure made either by the finger or the handle of a common key be, as I have often known it, unnecessarily heavy and sudden, there are few susceptible females who would not by their wincing give proof of pain. But the examination must be more carefully conducted, and if isolated tenderness and puffiness be then discovered, the complication really exists. Mr. Tate thinks that the hysterical pain in the side is seated in the intercostal nerve, and sometimes in the nerves of the heart itself. But the pain is in many of these cases on the *right* side, under the margin of the ribs; and all allow the non-inflammatory character of these pains, although, it cannot be denied, in plethoric subjects, that moderate depletion may sometimes do good. There are no cases less satisfactory; for neither local treatment nor medicine seems to avail much for their relief. Opium plasters, with or without belladonna, shampooing, acupuncturation, the tartar emetic ointment, and various narcotic embrocations, have all been employed, occasionally doing some

good, but more commonly attended with only a very limited amount of benefit. The following liniment deserves trial — in my own practice it has relieved these peculiar pains quite as much, if not more, than any other :—

℞. Ether Rect. Sp. Camph. Tinct. Opii, Tinct. Lyttæ. aa ʒ iv. m.ft Lin. Frequenter quotidie partibus affect. benè infricendum.

On electricity and galvanism as remedial agents, much confidence is not placed; although of late, in several affections dependent on or intimately associated with this malady, the former has been usefully employed at Guy's: nor can there be a doubt where the hysteria is connected with a torpid or amenorrhœal state of the uterus, that the paroxysm and its immediate results have been materially relieved, and in some cases, entirely cured, where menstruation had appeared under the influence of the electric treatment. In chorea so often connected with hysteria, and in hysteric epilepsy, occurring in women in whom the uterine functions were suspended, electricity, by restoring the catamenia, has been of marked and material service.

It is not unimportant to observe, that although marriage often cures hysteria, women who have *long suffered* from its effects, rarely make good nurses. Doubtless there are exceptions to this fact; nor is it intended to be urged, that such women cannot suckle at all; nor that they may not occasionally be benefitted by lactation. But where, prior to a late marriage, hysteria has existed for years, in association with extreme susceptibility, peevishness of disposition, and thinness of person, it is for the most part undesirable, that such mothers should suckle their offspring. The milk is often disordered, the child's digestive system is thereby deranged, and a predisposition to nervous disease may be communicated.

Preventive Treatment.—Where a tendency to the disease is evident, or where one or several decided hysteric seizures have occurred, it is important that every prophylactic measure should be early and fully adopted.

The remarks on the physical education of female youth (pages 23 and 24), have a distinct reference to this important subject;

and it cannot be too strongly urged, that nature and common sense, are much better arbiters in every matter relative to female health, than fashion and a too refined taste. Of all the influences capable of moulding the female constitution, there are none so powerful as *light, air, food,* and *exercise;* and certainly in reference to the three latter, nothing can be more at variance with propriety than our national customs. It were easy to censure the way in which female education is conducted; but it would be to little purpose, till such plans are adopted as shall ensure a higher appreciation of physical health and vigour. Happily of late some degree of reformation is observable; and the young ladies even in our fashionable boarding schools are beginning to realize its blessings. Animal food, and not farinaceous puddings and slops, wholesome malt liquor instead of water, tea, or bad wine, running, jumping, and vigorous play, are now occasionally heard of without being at once condemned as fit only for the vulgar. By and bye, it is to be hoped, that a sounder education will be built on these natural principles; and instead of days and weeks, devoted as they now are, to music, absurd accomplishments, and romantic nonsense; some hours at least, daily or weekly, will be given up to history, literature, and the economy of every-day life.

In bringing this chapter to a conclusion, I feel that I may have dwelt longer on the subject than its real importance might, at the first view seem to justify. But, when it is remembered, how extensively this incubus of the female habit prevails, how many diseases it simulates, and how many it masks,—how wide a field it throws open to the dishonest practices of empirics of every grade,—and yet how frequently, by a comprehensive and accurate acquaintance with its protean forms, alarm may be dissipated and inapplicable remedies discarded,—I shall not perhaps be deemed justly censurable for the space thus appropriated. The end and aim has been, to point out the uterine functional origin of hysteria, and, without a too prolix detail, to convince the reader, *that a morbid or perverted nervous influence,* the very essence of the malady may, and often does change the aspect and thus perplex the diagnosis of every female sexual disease.

CHAPTER XI.

OF THE IRRITABLE UTERUS, OR HYSTERALGIA.

DEFINITION. — *A permanent and painful sensibility of the uterus, and especially of its neck; often accompanied by increased frequency of pulse, a dry, hot skin, and generally, in protracted cases, with stomach and renal derangement. The disease usually occurs during the middle period of life, and commonly prevents conception. It is exceedingly difficult to cure, even to palliate; and, it is said, that it is neither attended by, nor tends to produce change of structure.*

History and Symptoms.—The disease is in fact a constant dysmenorrhœa, and for the first masterly description of it, we are indebted to Dr. Gooch. A narration of the symptoms of painful menstruation in its neuralgic form, would, with slight alterations, suffice for irritable uterus. It does not occur to the very youthful; the earliest time that I have seen it being in the twenty-third year, although Dr. Dewees mentions an example of a young lady of only eighteen, where all the symptoms were present, even to the prolapsed state of the uterus. Generally it is a disease of married life, and I have never known an instance where pregnancy occurred during its continuance. Single women, after thirty, or at the approach of the period of catamenial decline, and widows, may be its subjects.

The *local* symptoms are pain in the lowest part of the abdomen, extending round the brim of the pelvis, and also in the loins; and while it may be truly said, that these pains never entirely cease, they are easily exasperated by mental emotion or bodily excitement. Often have I known the attempt to go up stairs, a short walk, an injudicious ride, or even sitting upright or standing only for a few minutes, induce severe lancinating

pains, in and about the pelvis, lasting for many hours. Sometimes the whole of the vulva and the vagina, especially at its orifice, are slightly swollen; and when the disease is thoroughly confirmed, any movement by which the neck of the uterus is brought into sudden, jarring contact with the surrounding parts, excites severe suffering. Hence defecation, if it be difficult, or even the evacuation of the bladder, are dreaded events. Leucorrhœa is a frequent attendant; and at this time, I have under my care a patient, where its amount and character are dependent on the intensity and continuance of the pain. If the sufferings have for a few days been unusually severe and unintermitting, the discharge becomes copious, thick, greenish, and offensive; whereas, after a period of comparative ease, the secretion is only mucous and transparent.

The uterus is almost always a little lower in the pelvic cavity than natural, and by some authors it is said to be even constantly prolapsed. An external examination of the lower part of the abdomen gives pain; and if the finger be pressed behind the pubis, and round the pelvic brim, a paroxysm is not unfrequently induced. But it is by an examination of the neck of the uterus that we discover the real nature of the malady. It cannot be said, that the body of the organ is free from morbid tenderness, but the sensibility of the cervix is often so exquisite that the patient shrieks, and is thrown almost into a fit of hysteria, if it be rudely touched; and on several occasions, by patients at Guy's, I have been requested to forego any renewed examination, because so many hours elapsed before the intense suffering subsided, even after the slightest pressure. Dr. Gooch believed that the tenderness was confined to the uterus, and that the finger might be pressed against the sides of the vagina without causing uneasiness. This statement my experience has not confirmed, having observed frequently a more than ordinary degree of sensibility and heat in this canal. In acute inflammation of the cervix uteri, a much less common disease, the observation is, I think, perfectly true; as then pressure on the vagina, immediately contiguous to the neck, or on the body of the uterus, is borne without any suffering at all. In irritable uterus, the cervix is often somewhat shortened

and expanded, and occasionally puffy and swollen, and the lips of the os are more than naturally closed.

Dewees especially notices as having occurred in all his cases a pulsating, throbbing, or fluttering sensation within the vagina or in some part of the pelvic cavity, always disagreeable, though not constantly present, and sometimes interrupting sleep. Such a symptom has not existed in marked degree in the examples I have seen; but in several, the throes of the uterus have been painfully severe.

Constitutional Symptoms.—There is usually vascular excitement, and after a time the pulse becomes habitually quicker, softer and compressible; and sometimes in plethoric women, harder and fuller. Evening fever occurs with a flushed cheek and hot skin; there is also headach, dyspepsia, and a capricious appetite. The urine is often high-coloured, scanty, and voided with pain; and according to some authors, it is strongly odorous, and when at rest, throws down a large deposit. The suffering attendant on the disease is more severe and paroxysmal prior to, and during, or after menstruation, but the regularity of the secretion is not seriously interfered with: its quantity is usually diminished, and it is often pale and watery, but rarely if ever, profuse. The constant uneasiness, and the frequent exacerbations, even independently of motion, soon compel almost entire confinement to the sofa: hence the want of exercise and fresh air, the worrying and almost incessant pain, and the constant use of narcotics, sooner or later break down the general health, and a languid circulation, constipated bowels, dyspepsia and emaciation ensue.

Pathology.—Dr. Gooch's opinion, that the irritable uterus sustains in reference to inflammation of the organ, the same position as irritable tumour of the breast, and irritable hysteric affection of the joints, to inflammation of those parts; and that it consists in a permanently painful state of the viscus, but that it is neither accompanied by nor tends to produce change in its structure, require for their establishment as facts, more proof than has hitherto been adduced. This accurate observer founded his views on analogy, and on the lengthened period of ten years, during which, having carefully watched the progress

of certain cases, he found the uterine organization still unaltered. The analogical part of the opinion is unsatisfactory, and must remain so till the nature of hysteria is developed, and till the affections from which this pathology is deduced are more clearly proved to be not at all dependent on inflammation. That the disease in question, should be regarded as a modified inflammation of the cervix uteri, is a view, in accordance not only with symptoms, but with the results of the most successful treatment. It is difficult to understand, that there shall be redness, which I have several times seen by the speculum, heat, permanent pain, and tenderness of the neck of the uterus, a glandular part, without believing that its vascular and nervous structures, shall have undergone some change. Judging also from the marked relief afforded by cupping, leeching, aperients and spare diet, in Dr. Gooch's own cases, what more tenable and satisfactory conclusion can be arrived at, than that the so-called irritable uterus is really dependent on subacute or chronic inflammation; a position, the truth of which is fully substantiated by those changes of structure, which, although slowly, and not till after many years, have nevertheless occurred, in cases, which till then, were regarded and treated as examples of irritable or neuralgic disease.

It is scarcely practicable to substantiate by examinations after death, the opinions now advanced; because a fatal result very rarely, if ever, occurs; although, I presume that morbid conditions of the nervous system may thus terminate, without having induced any manifest lesions of structure. But had the life of the distinguished physician to whom I have so often alluded, been prolonged, he would probably have been convinced, that induration, subsequent softening, and destruction of this particular portion of the organ, did occur in this supposed functional malady. Dr. Dewees urges that an examination be made, should an opportunity present, as he thinks "that more derangement of structure would be found than appears to be allowed to exist, for we have met, he says, with several cases in which the size and form of the neck of the uterus were much altered from their natural condition." Dr. Robert Lee also remarks, that "it is maintained by some that all the symptoms

of chronic inflammation of the uterus may be present without inflammation, or without any sensible derangement of the uterus. This view does not, however, rest on accurate and extensive pathological research; and the heat, swelling, and exquisite sensibility of the neck and body of the uterus, prove that in the disease, or group of diseases, described by Dr. Gooch under the name of irritable uterus, a state of the organ exists closely allied to inflammation or congestion. In more than one case which had been considered and treated as simple irritability of the uterus, without inflammation, organic disease of a malignant nature was subsequently developed. The presence of fibrous tumours in the walls of the uterus, has likewise in some individuals given rise to that peculiar series of symptoms which has been described as characteristic of irritability of the uterus, without inflammation or disposition to a morbid alteration of structure." In a poor woman of the name of Turton, long under my care at Guy's Hospital, I had an excellent opportunity to test the truth of these opinions. She was an out-patient for three or four years, and during the whole period was suffering from irritable uterus. Constantly I pointed out her case to the pupils, as an excellent example of this affection. Numerous remedies were tried; and sometimes relief was obtained, but more frequently the various measures independently of narcotics, did little or no good. At length, after nearly six years, induration occurred. She became an in-patient, and the entry by the clinical clerk in September, 1838, is as follows:—"The cervix is extensively destroyed by ulceration, and is also indurated." Nor may it be irrelevant to notice, that Mr. Lever has found that one of the occasional results of dysmenorrhœa, is structural lesion. Dr. Gooch, indeed, allows that the disease consists in a state of the uterus, similar to dysmenorrhœa, only permanent instead of occasional. If this be so, is not the probability increased, that his pathology of this presumed disease of irritation is erroneous? He further says, thus proving that he doubts the correctness of his own opinions, that the cases may be arranged in three classes—"in one of which congestion is an essential part; in another, congestion may be absent; while another may consist of those inter-

minable cases which nothing relieves. In these there may be *some disease of structure*, in a part of the uterus out of reach of examination by touch."

Probably irritable uterus may be hereditary. Several times I have found on inquiry, that the mothers of the sufferers had been similarly affected; and in a case I lately saw with Sir James Clark, the lady assigned as a reason why she ought not to submit to scarification of the congested cervix, that as her mother had suffered severely all her life from the disease, nothing would do her any good. In three instances under my own observation, the malady has gradually disappeared with the decline of the catamenial function, without leaving as its consequence any morbid condition of the cervix.

Causes.—It is easy to enumerate many circumstances which directly excite the disease, but it is more perplexing to point out the causes which predispose to it. Most of the patients I have seen were highly susceptible, in common parlance "nervous persons;" but the disease is by no means confined to this class; the hale and healthy occasionally suffering from its aggravated forms. Most authors, however, concur in the fact, that dysmenorrhœa frequently precedes it.

Any undue bodily exertion, especially during menstruation, or after abortion, may bring on the affection, more particularly if there be a latent, although unappreciated predisposition. In one of my cases, its first attack was attributed to a long ride on horseback, in the fourth month of pregnancy; and violent jolting, or too long standing in the erect posture, may at any time produce it. A too powerful astringent injection for the cure of leucorrhœa, and cold ablution of the vulva, and a sudden stoppage of menstruation from alarm, have each occasioned it. Excessive sensibility alone, may determine its first appearance, and in several examples, together with a painfully tender condition of the vagina; the disease was attributed to marriage; but there are also many instances where distinct and positive causes may be adduced. Lately I was quite satisfied, that the affection dated its commencement from prolapse of the womb, which had remained undiscovered several months: a pessary was introduced, and every distressing symptom was quickly relieved. Seve-

ral times at Guy's it has been ascertained, to depend on hard or fibrous tumors in or near the cervix, and a puckered and hard condition of this part, has not unfrequently been complicated with its worst symptoms. On one occasion, a tender and slightly indurated and contracted os was the only appreciable cause; and gradually did the symptoms decline, when by depletion, the internal and local use of iodine, the warm bath and sexual abstinence, these unhealthy conditions had been removed. Dr. Ingleby has made some interesting observations on the affection, and as the following are confirmatory of my own experience, I shall quote them in his words:— "Within the last twelve years I have seen a great number of cases of the disease termed irritable uterus, and I have kept notes of seventeen of them. Three of these were unconnected with any appreciable cause: one was attended by descent of the ovary into the pelvis; one by descent of the uterus soon after marriage; one originated in extreme distension of the uterus during pregnancy; seven followed delivery; four were connected with fibrous tumours. Of this number, it is material to observe, that in several of the cases there was one prominent symptom, namely, excessive irritability of the vagina."

Diagnosis. — From neuralgic dysmenorrhœa, the irritable uterus will be distinguished by the constancy of the attendant suffering. From acute inflammation of the cervix, by the absence of swelling, heat and throbbing; and from chronic inflammation, tending to disorganization; by the history of the case, its intimate connection with deranged menstruation, (the function with which uterine organic lesions rarely interfere, even throughout their whole course); by the absence of discharges; by the duration of the malady; and by the slight alteration of the cervix itself, as compared with the amount of suffering. It has been mistaken for common prolapsus, but although the descent of the uterus, so frequent in this disease, may be entirely removed by the recumbent posture, still unlike what obtains in the former affection, the pain, which in simple prolapsus is entirely removed by replacement, is, in irritable uterus only palliated.

Prognosis.—This is invariably favourable to life, but an early

recovery must not be promised. It may be truly said, that the disease admits of great relief, but let it be urged, that this is seriously dependent on the self-denying fortitude of the patient. Without this, for no affection is so prone to return, the skill and assiduity of the practitioner will avail but little.

Treatment.—If the reader will refer to the chapter on dysmenorrhœa, he will there find a full detail of the various remedies, which are alike applicable to both affections. In the management of irritable uterus two indications must be observed: viz. *To mitigate local suffering, and to sustain and improve the general health.*

In addition to all the medical means, absolute repose in the horizontal posture must be enforced, not for a few weeks only, but for several, perhaps for many months. Let it however, be understood, that arrangements should be made to carry the patient into the open air, and if possible, to place her on the sea coast. Sailing, exercise in the recumbent posture, and quietude, are essential. Active purgation must be interdicted, as it never fails to induce and exasperate the pain. A generous, but not a stimulating diet: milk in every form in which it can be prepared; steel, in moderate and long continued doses; narcotics varied and in minute quantity; claret and bitter ale, are amongst the best and most important remedies. Low diet, close confinement within doors, drastic aperients, and even frequent small bleedings, must be carefully avoided. Several times within the last two or three years I have employed *scarifications*, as first recommended and practised by the late Mr. Fenner. A suitable speculum must be carefully introduced into the vagina, by which the os and cervix will be brought fairly into view; then by a cornea knife passed down the tube, seven or eight crucial scarifications may be made, from which frequently three or four ounces of blood will be obtained. I have never known the patient complain of pain from these incisions, nor am I aware that any difficulty or delay has retarded their cicatrization. In two patients of Mr. Fenner whom I several times visited, this treatment had been curatively employed; and judging from their and his account, they were both of them aggravated forms of the disease. In several of my own cases this

method of depletion has proved most successful, not only in immediately relieving the characteristic pain, but in restoring the uterus, and especially the cervix, to a more healthy state. Where there is no evidence of congestion, or of increased vascularity, the scarifications ought not to be made; but I think the irritable uterus is rarely unattended by this morbid state of cervix. Pessaries have long been recommended, where there is decided prolapsus; but I am not aware that they have been employed in the absence of this state. I am now convinced, after a good many trials, *that where even there is no marked uterine descent*, they will often give great relief, provided the vagina is not unusually tender and irritable. In several instances every other measure was fruitlessly employed; but the use of a circular box wood pessary, for three or four months, seemed really to have cured the affection.

Case 40.

IRRITABLE UTERUS—SCARIFICATION OF THE CERVIX.

In December, 1838. I was requested by the late Mr. Fenner, of Pentonville, to visit Mrs. ———, æt. 39. She had long suffered from the most aggravated symptoms of irritable womb, and occasionally the paroxysms were so severe as nearly to deprive her of reason. The throbbing and pulsating sensation, so pointedly alluded to by Dewees, was most painful, and often interrupted, and sometimes entirely prevented sleep. She had been robust, and "en bon point," till the occurrence of the disease two years previously; but so little relief had been obtained, and the sufferings were so unintermitted, that she had become emaciated and irritable, and was constantly lying on the sofa; the "great trouble of her life being that occasionally she was compelled to move." On examination, we found the uterus highly congested, and its cervix hard, of large size, and very tender; the vagina too, throughout its whole extent, was morbidly sensitive, and even gentle pressure caused prolonged and severe sufferings. The disease had succeeded an abortion two years before. At that time there was considerable hemorrhage, and the gradually increasing tenderness of the internal genitals had for many months induced her to live "absque marito." Menstruation invariably aggravated her misery, and there was sometimes con-

siderable leucorrhœal discharge. Altogether, it was as distressing an example of the affection as I had ever witnessed.

On the day succeeding our first visit we again met, and I made seven or eight scarifications in the way already described; and nearly four ounces of blood, by measure, were obtained. The patient scarcely regarded the pain of the scarification, and in a few hours she remarked, that she had never before obtained such relief. A suppository of opium was subsequently used. Four or five times afterwards, this method of depletion was practised, and with increasing success. A bland and nutritious diet and bitter ale were prescribed; iron in several forms was exhibited, and after a lapse of several months, I was informed that the health of Mrs. ——— was so greatly restored as not to require any further medical treatment or care.

Case 41.

IRRITABLE UTERUS—TREATED BY THE APPLICATION OF LEECHES TO THE OS UTERI.

April 20th, 1841. Miss ———, æt 32, a patient of Mr. Harris, of Fenchurch Street, has constantly suffered for more than a year from the following symptoms:—Central pains extending from the lowest part of the back and loins, round to the pubis in front, and deep down behind the mons veneris, and affecting the urethra and rectum. Occasionally, the suffering is seated in the groins, the anterior and posterior parts of the thighs, often reaching even to the toes. These pains are always aggravated by exertion, by going up and down stairs, or by mental emotion, but especially by any error of diet. Indigestible food, inducing dyspepsia, is sure to bring on an exacerbation. Her general health is impaired; the appetite is capricious, the bowels constipated, and never acted upou without an increase of the local uneasiness; the skin is unhealthily dry, and chlorotic; the pulse quick and irritable, and she is much thinner. Has been for many months confined, almost entirely to the recumbent posture.

On examination, the uterus was found slightly prolapsed, and its cervix was indurated, enlarged, and exquisitely painful on touch. The vagina was healthy: examination by the rectum proved, that the body of the womb was larger, heavier, and more tender than natural. Laughing, defecation, and sometimes even the slight effort necessary to evacuate the bladder, would increase the suffering for many

hours. She sleeps badly, is every now and then hysterical, and has some leucorrhœa. The urine is scanty, high-coloured, and deposits largely. The approach of menstruation is always dreaded as being the certain forerunner of several days constant suffering. Headach is frequent, and seriously augments her catalogue of ills.

Eight or ten leeches were ordered to be applied by the speculum tube twice a week, and the horizontal position was strictly enjoined. Mild chalybeates, with narcotics, cordial aperients, and nutritive diet, and bitter ale, comprised the whole of the remedial plan. The annexed form of tonic and aperient may often be exhibited in these caseswith marked benefit.

℞. Ferri Tartrat. Ammon. ʒi. vel. ʒiss. Syr. Papav. Alb. ʒiv. vel. Morphiœ Acetat. gr. i vel ii. Tinct. Card. C. ʒiv. Aquæ puræ ℥vii M.ft. Mist.

One to two table spoonfuls to be taken twice, thrice, or four times, daily.

℞. Pulv. Rhei. Magnes. Carb. Conf. Aromatic. āā ʒss. Aquæ Pulegii, Anethi, Cinnamomi, vel. Menthæ Piperitidis ʒxvj. M.ft. Haust. aperiens.

To be taken either on going to bed at night, or early in the morning, once or twice a week.

On my second visit several weeks subsequently, a satisfactory improvement had occurred. Mr. Harris had varied the remedies as occasion required, but the leeching had been perseveringly practised, and the catamenial period had been passed over with less suffering. The cervix was lessened, and by no means so tender, and the patient's hopes were evidently revived.

It was agreed that there should be no alteration of the plan, and without troubling the reader with a circumstantial detail, I may at once say, that in July she was so much improved as to render it further desirable to send her by steam-boat to the sea coast. My last inquiries about her were very satisfactorily answered.

I could add many cases similarly treated, but their narration would unnecessarily amplify the size of the work. It will be

sufficient to remark, that uterine enlargement and congestion are not always present, and where the disease is evidently and solely neuralgic, the uterus and its cervix, although exquisitely tender, being small and shrivelled, rather than large and indurated, no advantage can be derived from leeching or scarification. In such forms, decided change of air, a sea voyage, and a course of chalybeate waters, the Marienbad or Carlsbad, or the waters of Harrowgate, are often of great service. It may, too, be mentioned, that this, the real neuralgic form of the malady, is, like dysmenorrhœa, often, although not invariably, cured by marriage.

PART II.

OF THE ORGANIC DISEASES OF THE INTERNAL AND EXTERNAL FEMALE GENITALS.

CHAPTER I.

GENERAL REMARKS ON THE HISTORY AND SYMPTOMS, DIAGNOSIS, PATHOLOGY, AND PROGNOSIS OF THE ORGANIC DISEASES OF THE UTERINE SYSTEM.

An organic, unlike a functional disease, is one *in which the deviations from healthy action, are indicated by symptoms during life, and by appearances after death, which are always the result of some, and often of very conspicuous structural lesion.* Cancer, scrofula, and the deposits of chronic inflammation, may be adduced as examples. They are less complicated and perplexing than the functional maladies; their locality is usually more easily discovered, and their extent is generally defined without much difficulty. The precise pathology, however, of an organic enlargement, whether it be an excess of nutrition, merely increasing the bulk; or whether the greater size and altered texture be the product of malignant change in the viscus; are questions far more difficult to solve, and about which the ablest observers, at least for a time, often differ. It is also true, that the resemblance between comparatively inert and malignant organic lesions, is frequently so striking as to render the distinction exceedingly perplexing Hence the diagnosis of such lesions where it is practicable, is a matter of great moment. Again, we can rarely cure these morbid enlargements and alter-

ations; but modern pathology has clearly illustrated many of them, so that we may at least avoid an indiscrimate and injurious treatment, however little we can effect through the medium of the absorbents for their entire removal.

Still we are occasionally justified in stating, that formidable as may be the bulk of some of these growths, rest, self denial, and dietetic management, may and frequently does so far preserve the general health, as to permit life to be protracted with tolerable comfort, up to and even beyond the usual period. But there are often considerable perplexities in the pathology, treatment, and prognosis; especially for example, where organic diseases of the uterus co-exist with pregnancy; and where, embarrassing as is the diagnosis, the safety of the patient mainly depends on its accuracy. I know, practically, that it is sometimes almost impossible, with every aid, to arrive at *certainty* respecting the precise character of complicated diseases of the womb; but I also know, that they are often overlooked or misunderstood, from the want of a sufficiently early and careful investigation. Nor is this delay to be altogether ascribed to the practitioner: there is, amongst delicate females, a natural, although an unsafe repugnance to the early and necessary examination; and the concealed situation of the uterus, within the pelvic cavity, renders the task, however ably performed, by no means a simple one.

It is scarcely necessary to remark, that to do so successfully, *the healthy condition, and the healthy varieties of the female generative organs must be understood.* It will be in vain to attempt to appreciate morbid deviations, if this previous knowledge be not possessed. The reader must, therefore, excuse some description of the anatomy of the parts, and of the normal peculiarities of structure occasionally met with.

There are several methods of inquiry; but they are not all equally efficient. From two sources, important facts may always be obtained; and from two instrumental methods of examination, and from the discharges, knowledge, illustrative and confirmatory of the true pathology of these affections, may generally be elicited.

THE HISTORY OF THE SYMPTOMS, and
THE EXAMINATION BY TOUCH,

afford, in every instance of organic uterine disease, certain and indispensible information: whilst

THE SPECULUM,
THE STETHOSCOPE, and
THE DISCHARGES,

will often assist, and may occasionally lead to an incontrovertible opinion. At the conclusion of the chapter, some remarks will be made on THE PATHOLOGY of these structural lesions.

THE HISTORY OF THE SYMPTOMS.

It is hardly requisite, to enter minutely into all the particulars of a suspected case of organic disease: and yet, without the facts which the previous history alone can furnish, we shall often remain ignorant of the morbid actions of the general system. I forbear more than an allusion to the influence *of temperament, or diathesis.** A strumous habit is frequently associated with organic glandular disease; while a high standard of mind, and exquisite nervous sensibility, apart from struma, are more commonly connected with hysteria, and the perplexing varieties of irritation, than with structural change. None of us can forget how often, where pain has indicated inflammation, the remedy which procured relief clearly proved that irritation was its cause. Nothing can excuse a disregard of symptoms, supposed to depend on organic lesion. Every such instance must be a distinct object of inquiry; and every symptom deserves, if it be possible, to be pathologically traced to its true origin. I may illustrate the necessity of such a procedure, by a case which has frequently occurred to me. A patient complains of difficulty and shortness of breathing, pain in the hypogastric region, and general abdominal enlargement. If she have attained fifty years of age, if there be a tolerably distinct increase of bulk in the site of the uterus, and if there be obstructed action of the large intestine and urinary bladder, a hasty and imperfect inquiry has often determined that uterine, or other tumour of a structural kind, was the cause of these sufferings. An unfavourable prognosis has been pronounced, and a merely palliative treatment has been

* It is perhaps worthy of notice, that in thirty-three cases of Carcinoma Uteri occurring amongst my out-patients at Guy's, twenty-three of the women were of dark complexion.

adopted. Let the history of these symptoms be carefully inquired into, and it is far from improbable that the indications, throughout the whole course of the case, may not have pointed to organic change. There may have been constant indigestion, torpor of bowels, and general inactivity of system. The result is seen in acute and spasmodic pain; in frequent flatulent distension of the bowels; in a hard enlargement of the lower belly; and in a general and unhealthy deposition of adipose matter over the whole of the abdomen;—still, without structural uterine disease.

But it is necessary to be more precise;—and I shall direct attention, first of all, to some important facts, illustrative of the *kind of pain*, its *period of attack*, and *its duration*. In these diseases of the uterus, it is impossible, as in those of many other viscera, to recognize particular affections by characteristic pains. The uterus is but sparingly supplied with nerves of sensation; its greatest nervous influence being derived from the sympathetic, the nerve of organic life, through the medium of the hypogastric plexus;—a distribution practically illustrated by the indications of organic affection. Thus, it not unfrequently happens, that the little acute suffering attendant on the earlier and even more advanced stages of these structural changes creates a false and pernicious security, leading the patient to postpone the necessary examination; and not to seek advice till the bulk of the growth is producing mechanical inconveniences, so serious and confirmed, as to preclude the possibility of more than partial and temporary relief. Contrast what has now been stated, with what occurs in functional affections of this organ; and the assistance to a correct distinction is still greater; here the pain is immediate and severe, and the implication, through the medium of the sympathetic nerve, of the other abdominal viscera, and oftentimes of the brain, occasions so much suffering as to demand prompt and efficient treatment. Thus in chronic structural disease of the uterus, there is seldom acute, early, or continued pain; while in functional disorders, such as irritation, and in inflammation, these conditions are invariably present.

The pains dependent on increased bulk and displacement of

the uterus, are common to many, and diversified affections of the viscus. Supposing the uterus to have attained equal size, the painful indications will be nearly the same, whether the increased volume is produced by chronic vascular congestion, by hard fibrous or even calcareous tumours, by polypi, or by accumulations of fluid or air within its cavity. The suffering here is the consequence of mechanical pressure, and encroachment on neighbouring parts: and in all these cases, the patient will complain of dragging pain in the loins, extending occasionally to the anus and perinæum; of weight and fulness in the hypogastrium, with constipation of the bowels, if the uterus press on the rectum; or of difficult micturition, if it incline forwards and rest on the urethra or neck of the bladder. Again, should the uterus become largely distended at its sides, it may press on the obturator nerve; such pressure being indicated by screwing pains at the hips or inside of the thighs, or in any part of the course of the abductor muscles. A further increase of bulk may involve the sciatic; or, if above the pelvic brim, the anterior crural nerve;—points easily ascertained, by the pain being referred to the course of these nerves. But pains of a like kind are common in some of the displacements of the uterus, especially in prolapsus and procidentia. Nor are the sufferings occasionally attendant on the growth of the gravid womb very dissimilar. The distinction is not, however, difficult: the recumbent posture favours the return of a prolapsed, procident, or ante-verted uterus, and consequently suspends the pain; while the permanency of the morbid distensions and growths allows of scarcely any relief to the mechanical pressure, which, although slightly modified by an alteration of posture, is not removed. A variety of indications will ensure a correct opinion, in most cases of pregnancy. One, perhaps, deserves especial notice; viz., that the pain is rarely felt, in this state, during the gradual and natural distension of the womb, but during its premature or healthy contractions.

The *duration* of the *pain*, and other *morbid changes* dependent upon it, deserve consideration. Whatever might be the symptoms, organic alteration would scarcely be suspected, except from the examples of some very rapid and rare malignant

affections, where the suffering and other morbid symptoms had existed only for a few weeks. Such maladies, unlike inflammations and fevers, require months at least, and often years, for their full establishment. Eventually, and principally by mechanical pressure, the functions of other and neighbouring viscera are interrupted; disorganizing changes in their structure afterwards occurring, which ultimately affect the organic growths themselves. Nor, without the examination by touch, or the speculum, can we safely pronounce that there is no ulceration of the uterus, because there is no lancinating pain. It is true, that suffering of this kind generally accompanies ulceration; but numerous instances in the wards, and amongst the out-patients, attest that it is by no means an invariable concomitant. I have, every year, patients in the last stages of these diseases who still do not require opiates, so slight and transient is the pain caused by the ulceration.

Emaciation is regarded as an almost unequivocal sign of structural lesion; and in the truly malignant diseases, it is seldom absent: but in hard tumours of the uterus, even of great size, there is often no emaciation, till the period when ulceration has occurred in neighbouring organs or tissues, and when the tumour itself is beginning to soften and break down. Where, however, the tumour is growing rapidly, or where it is producing irritation by mechanical pressure, digestion is soon impaired, there is little or no appetite, and flesh is sensibly and quickly lost.

I have now enumerated the principal circumstances properly included in the history of a structural disease of the uterus: and it may further be remarked, that any event affecting the vital properties or functions, dependent on the real or supposed organic malady, is properly comprised in this section; the deviations in the anatomical or physical properties of any viscus being the objects of the examination by touch or by the speculum, by the stethoscope, and by the discharges. There will exist other symptoms of less importance, but still deserving of some remark and enumeration. A history of any given case might not be very incomplete without these lesser details; but the diagnostic record of any structural disease must be essentially imperfect, which does not direct the attention of the reader to the age, the

temperament, the kind of pain, the duration of the malady, the effect upon the general health, more especially as to emaciation, and the degree of obstruction or difficulty in the functions of the diaphragm, intestines, or urinary bladder. I shall now pass on to the

EXAMINATION BY TOUCH,

our most valuable means of diagnosis, especially when aided by the speculum, and on some rare occasions by the stethoscope. Here preliminary anatomical knowledge is essential. The practitioner, to whom the healthy structure of the uterus and its appendages is unknown, will try in vain to appreciate the nature and extent of its morbid deviations; he may examine, but he will not know for what he seeks. The pathology of organic disease of the uterus rests on anatomy: a correct diagnosis must, therefore, mainly depend on correct anatomical knowledge.

The anatomy of the uterus, for the purposes of diagnosis, may be arranged in two divisions.

In the first, may be considered its *structure;* and in the second division, its *size, relative position* or *locality.*

The structure of the uterus is not difficult to be understood. Externally, it is invested by a serous, while within it is lined by a mucous membrane: the covering externally is the peritoneum; while the internal lining is a prolongation of the mucous surface of the pudendum and vagina. Between these lies the proper substance of the uterus, or its parenchyma; made up of its peculiar muscular fibre, its arteries, veins, lymphatics, nerves, and intervening cellular tissue. It is not necessary to mention the sources whence its supply of blood and nervous influence are derived, because these are points generally known; but I cannot forbear observing, that this simple anatomical arrangement is the key to the study of uterine affections. Each of these parts may be separately the seat of disease: the peritoneum may be inflamed, without the mucous membrane or the parenchyma; and will present symptoms and changes, strikingly unlike those which shall be produced by inflammation either of the mucous membrane or the proper structure of the organ. It will not, however, be discovered, that the phenomena

accompanying peritoneal inflammation of the uterus differ from those attendant on inflamed peritoneum of other parts, or on inflamed pleura or arachnoid; though the situation of these latter membranes is widely distant; and the functions of the viscera, of which they are parts, widely different from that of the uterus. The same remark is true of the inflammation of the uterine mucous membrane, the progress and results of which closely resemble the inflammation of similar structures in other parts of the body. Nor is the parenchyma of the uterus excepted from this general law. It will be found liable to the like morbid structural and malignant alterations as the parenchyma of other organs.

I need not, however, enlarge; as I must hereafter direct attention to certain facts of this kind; especially to the difference between structural change in the walls and body of the uterus, and similar disease affecting the cervix of the organ.

The second division of the anatomy of the uterus comprises its *size*, and *relative position* or *locality*.

A minute description of the bulk, weight, and situation of the womb, in reference to the other viscera of the pelvis, is not required; but it is necessary to state a few leading particulars, all of them bearing on diagnosis. The form of the uterus is that of a flattened pear; measuring, from fundus to os, after the full establishment of puberty, and prior to child-bearing, a little more than two inches. After several pregnancies, this dimension will reach nearly three inches.

The weight of the adult virgin uterus, without its appendages, is not an ounce; after several children, it is seldom less than one and a half, or two ounces.

The breadth of the fundus in the adult virgin uterus, is about an inch and a half; and a little more when that organ has been impregnated.

It is placed obliquely in the pelvis; having the bladder in front, the rectum behind, and the convolutions of the ileum above: partially supported by its ligaments, but most effectively by the vagina. The shallowness of the pelvis before, and its greater depth laterally and towards the sacrum, are points of great moment in examination. The fundus of the

uterus rises as high as the superior margin of the pubes, lying forwards; and the cervix and os, stretching posteriorly, are nearly in contact with the middle or lower third of the sacrum.

There are two principal methods of examination by the finger; the first, *externally*, above the pubes; and the second, *by the vagina.*

Examination by the rectum will often clear up a doubtful point;—the posterior and more prominent surface of the uterus resting on the anterior part of the bowel. The principal facts elicited by the external examination are, *the bulk and form of the organ; its induration, or softness; its precise situation; the effects produced by pressure, such as pain in the part or at a distance, syncope, &c.; and its fixedness or moveability.*

When we attempt to measure the antero-posterior diameter of the pelvic brim, in reference to labour, it is a most favourable circumstance that the finger, in a common examination, cannot reach the promontory of the sacrum; as it is thereby proved, that in this, the principal diameter, there is plenty of room. A similar remark is equally true of the uterus: if, in this external examination by the hand, there is no tumour felt above the brim, or more laterally, it is at least a proof that the viscus does not greatly exceed its normal dimensions. The patient, to afford us every advantage, must be placed in the recumbent posture, on her back, and of course without stays; the shoulders elevated, and the lower extremities flexed upon the trunk: thus, relaxation of the abdominal muscles is fully secured. The examination will be more easily conducted, if the fat covering the abdomen be gently and gradually kneaded or pushed from the hypogastric region. The bladder and rectum ought to be nearly empty, and the intestines must not be distended with air. Prolonged examination is generally unnecessary; and, without arbitrarily limiting the time, such an inquiry ought never, as a general rule, to exceed a few minutes.

As we presume that there is increased abdominal bulk, our object is to ascertain its precise nature. There may be pregnancy, — a hard or schirrous tumor distending the womb, without pregnancy; pregnancy, complicated with one or more

tumors, of the uterus or ovary; or pregnancy co-existing with ovarian dropsy. There may, too, be accumulations of air or water in the cavity of the viscus; although tympanitis and dropsy of the womb, to any extent, are, in my experience, exceedingly rare. Of course, a minute and accurate knowledge of the abdominal region in health, and of the feeling then imparted to the finger by the various viscera, will aid much in the exploration. When there is disease, the difference is truly great between the tact and observation of different practitioners, in visceral affections of this region of the body.

If the growth depend on pregnancy, not to mention the early signs, the situation, shape, and hardness or softness of the tumour, will throw much light upon the question. The situation of the tumour, presuming it to be a pregnant uterus, will vary with the different periods of gestation. At the third month, the fundus of the organ will be felt just above the crest of the pubes; while at the sixth month, and afterwards, it will reach and ascend for an inch or two above the umbilicus. Thus, if the examination be made about the sixth or seventh month, provided there be none of the complications already alluded to, the oval form of the distending body; the larger extremity of the oval lying above and forwards, at or a little way above the level of the navel; its freedom from tenderness on pressure; the firmness felt in the tumour, so much greater and more defined than in any part of the abdomen, excepting the region of the liver, owing to the intestines occupying the spaces above and at its sides; are all of them circumstances confirmatory of the fact of pregnancy. Be it remembered, too, that these changes may all be satisfactorily ascertained, if the coverings of the abdomen are not unusually fat. And even where we meet with this great obstruction, the kneading process will avail much: at all events, the hardness or softness of the growth may be noticed. Hardness, it is true, belongs to schirrous tumours of the uterus; but they are usually lobulated, and sometimes almost stony; while the induration of pregnancy is of even surface, and only of moderate firmness; excepting when the womb is in action, when the hardness resembles that of marble.

I need not pursue this inquiry further. If pregnancy be strongly suspected, the stethoscope will be used; and if the pulsations of the fœtal heart be heard, all doubt is at an end.

If the enlargement of the womb result from *schirrus*, even though it be considerable, its diagnosis, where there is no pregnancy, is not difficult. The irregular and uneven surface of the growth, the separate knobs of induration, the number of the tumours where there are more than one, the long time generally occupied in their development, and the symptoms of continued mechanical pressure on neighbouring organs, prevent an erroneous conclusion. It may then be granted, that the external examination will frequently lead us to a correct and decided opinion, in those examples of doubtful enlargement produced solely by pregnancy, or solely by one or more hard tumours of the womb.

But will it suffice, *where tumours of the uterus or ovary, or dropsy of this latter organ,* or *growths from the broad ligament or other parts of the pelvis* are co-existing with pregnancy?

It may suffice even here, if these morbid conditions were known to exist prior to the pregnancy; and if this latter state has occurred in the usual manner, and is attended by the common and natural signs. Here there would be dangerous complication, but there would be no doubt. It sometimes happens, however, that women marry late; or, having been married early, conceive after many years of barrenness; or, having borne children rapidly at first, leave off doing so, till they have arrived at that period when the power of reproduction might be supposed to have ceased. Pregnancy in these latter circumstances is often doubted. Structural disease generally occurs at this age: and if the symptoms of the supposed pregnancy are incomplete and irregular, there is fair ground for hesitation. The bulk of the abdomen may perhaps be disproportionate to the presumed period of impregnation; there may may be a painful hardness in one part, and a want of proper size in another part of the abdomen; the catamenial suppression may not have been complete; the vaginal discharges may have been rather profuse and unhealthy; and the movements of the

child may have been only partially and feebly felt. All these peculiarities may depend on structural disease, co-existing with pregnancy; and several cases of mine, in a Paper in the First Volume of Guy's Hospital Reports "On the propriety of inducing premature labour in pregnancy complicated with tumor" prove these statements to be entirely true. In these instances, the opinion was most difficult: the history of the symptoms, and the external and internal examinations, scarcely sufficed for a positive diagnosis. In one of them, the stethoscope detected the beat of the fœtal heart; while in another, some doubt existed, till labour pains really occurred: nor was it possible to remove this doubt, as there were two very large tumors developed in the walls of the uterus, in front and laterally; and the placenta was completely over the os.

It is clear that the external examination alone, in such complications, cannot lead to a positive conclusion of what the case really is. The shape, the consistency, whether solid or fluid, and the extent of the abdominal enlargement, may be thus ascertained. The pulsations of the fœtal heart, if the child be not feeble or dead, even where there is growth in the walls of the womb, may sometimes be heard through the stethoscope; although it will more frequently happen that this invaluable instrument will be used in vain. I forbear, for reasons hereafter explained, to allude to the placental souffle. All this may have been accomplished, and yet we are far from certainty.

The internal examination by the vagina, and, if necessary, by the rectum, must be employed. In cases merely of doubtful pregnancy, where there is no suspicion of uterine disease, a cautious practitioner would not commit himself without this internal examination, except he had heard the beat of the fœtal heart, or had felt the fœtal movements. In those examples, therefore, of abdominal or pelvic enlargement, where pregnancy is thought to be complicated with disease, such inquiry is indispensable; and occasionally, with all the information it affords, we shall hesitate to pronounce a positive opinion. It is far easier, by this vaginal inquiry, aided by the speculum, to recognize, not only the existence, but even the precise nature and extent of uterine and vaginal disease, than it is to determine

whether pregnancy really exists in connection with organic change, thus producing the augmented bulk. There are few things so difficult as to form a correct diagnosis in these cases. In my opinion, however, the determination of the pregnancy is the most serious question: for if there be no fœtus in utero, a palliative treatment will be proper; whereas, if the patient be pregnant, her safety mainly and almost solely depends on the induction of premature labour.

The solving of this question requires that we ascertain the condition of the neck and mouth of the womb, the size and condition of its body, and the nature of the uterine contents, especially as to motion: if these various parts of the uterus are changed, as in simple and natural pregnancy, the opinion will be certain, and we shall proceed with confidence. The patient must be placed on her left side, the usual obstetric position; and the labia and nymphæ being carefully separated, the forefinger of the right hand will commonly reach and touch the parts satisfactorily. It must, however, be remembered, that the sensitive part of this finger can only examine with nicety that portion of the neck and os lying opposite to it: to examine the whole circumference of the neck, the index-finger of the left hand must also be used; and then it is scarcely possible that any morbid spot, or induration, can escape detection. As, in the operation of lithotomy, a deep perinæum increases the difficulty; so in the internal examination, an unusually long vagina, a broad perinæum, and large and fat labia, present obstacles to the investigation by a single finger. In such patients, two fingers, or perhaps the whole hand, must be used; having been previously lubricated by oil, rather than by any unctuous substance. If the neck be supple, broad, soft without tenderness, and if the os be closely sealed, so far the evidence is in favour of pregnancy. Doubts may arise here, because a polypus may distend the cavity, and lead to development of the neck, but the os would hardly be sealed: the neck itself may be the seat of chronic inflammation, or of hard tumour, generally diffused or confined to one spot; those may be puckered, fissured, or indurated by cicatrices, thus obscuring the indications: but, even here, tact will scarcely fail to appreciate in what degree the indications

are to be relied on; the practitioner never forgetting, that all these morbid conditions may exist in the neck of a pregnant uterus. A sealed os would, in a case of such perplexity, avail much: tumours growing from the neck, or os, would perplex, but they would not greatly interfere with the opinion.

The *second* part of this inquiry refers to the body of the uterus. And if the enlargement be globular, arising equally from every part of the circumference of the neck, expanding upwards after the manner of a balloon, affording an elastic resistance to pressure, such indications most probably result from pregnancy. Enlargement, it is true, may arise from hypertrophy, polypi, hydatids, and solid growths of various kinds; but here the resistance to the pressure of the finger would be different; there would be little or no elasticity, excepting where there are hydatids; for hydrometra or physometra need not be included; and there would be a solidity about the uterine mass, which could scarcely be mistaken for pregnancy.

The *third* fact to be discovered is, the nature of the uterine contents; and especially whether they possess the power of motion. The stethoscope is not always available, even where the child is living; and where it is dead, it can afford no help. I have already alluded to the different kind of resistance to the pressure of the finger, on the lower part of the body of the uterus. Where there is fluid in the cavity of the womb, the fluctuation, and perhaps the sound, will afford tolerable evidence: and if the palm of the left hand be placed over the hypogastric region, when impulse is given to the fluid by the finger in the vagina, there will not be much doubt of its locality. If there be a fœtus in this fluid, the same impulse will cause it to rise; and having floated for an instant, it will again subside on the finger. This is termed "ballotement," or balancing the fœtus, and can be practised with equal facility, whether it be living or dead.

Examination by the rectum will afford a correct idea of the degree of uterine enlargement, and of the pressure which it exerts posteriorly, and perhaps laterally. It may, too, confirm the impression of the solidity or fluidity of the uterine contents. The morbid peculiarities of the neck, already mentioned, may

slightly interfere with the examination of the body; but not so seriously as to prevent our distinguishing whether the contents of the viscus are hard, heavy, and incompressible, or fluctuating and elastic.

The placenta being entirely or even partially over the mouth of the womb, hypertrophy of the lower part of the organ, or one or two tumours, being situated in its front or sides, will, of course, prevent the certain conclusion which might otherwise be drawn: but we still have the history of the case, the previous pregnancies, if there have been any, the external abdominal enlargement, the examination by touch, and the stethoscope. This, then, is the inference fairly deducible—*that although there are cases, where the able employment of all our diagnostic means fails to make us certain of the existence or non-existence of pregnancy, yet that such examples are very few, compared with the number in which such means, used with tact, will conduct us to a positive and correct opinion.*

If the indications afforded by the vaginal examination, in doubtful and complicated pregnancy, approach thus near to certainty, *the touch, in most of the diseases of the cervix and os, aided by the speculum, must lead to a positive and correct opinion.* Often, however, the former mode will suffice; and it ought, in every instance, to be first employed. There is scarcely a case in which the examination by touch may not be used, once at least; while there are not a few in which the inspection by the speculum is absolutely injurious to the sound, as well as to the unhealthy structures of these organs. By the finger, we can correctly ascertain the size and shape, the consistency, the temperature, and the sensibility of the parts to be examined. Ulceration, or abrasion, may also be detected by the touch, but not with accuracy, as to its nature or extent.

The cervix is seldom more than an inch in length; and is attached to the womb, like a firm, solid nipple. It is lined, both externally and within, by mucous membrane. It differs sensibly from the body of the uterus, being glandular, and, of course, more compact and condensed in its structure; and, so far as I have examined it, without a trace of muscular tissue: it is the channel of communication between the vagina and uterine

cavity. Every solid body, whether it be the child, a polypus, a hard tumour, or hydatids, can only find egress through the distended and yielding, or diseased cervix. All the secretions of the uterine cavity, be they healthy, or offensive and irritating, must pass over its surface: added to which, it is frequently exposed to contusion and inflammation, from sexual intercourse, and from the use of obstetric and other instruments. If it be true, that a part is liable to organic change, in proportion to the excess or even the frequency of its action, we need not wonder that the cervix is so often the seat of chronic inflammation and of structural disease.

Varieties in the form and size, and, to a certain extent in the structure of this part, are not uncommon: and here it is, that precise anatomical knowledge is so valuable. Often have I been told, that the neck was organically diseased, when in one or other of its usual conditions, there was only a healthy peculiarity. A cervix, smaller or larger than the natural one, is often met with; and if there be nothing morbid in its structure or function, it is undeserving of pathological attention. The extremes of size may exist in the healthiest women. An elongated cervix is not so uncommon as I formerly supposed. Naturally the cervix hangs in the upper part of the vagina, not touching its parietes; but if it be of abnormal length, it will, of course, touch the vaginal surface; and, if very long, may produce irritation and leucorrhœa. In estimating pregnancy, and its period, by the development of this part, the possibility of a naturally elongated neck must not be forgotten, as such a variety is one of the exceptions to this indication. The apex, or inferior extremity of the neck is pierced by an aperture, called the os, of an oval form, and with its long diameter transversely. At puberty, and prior to parturition, it is not longer than a quarter of an inch; while in women who have had several or many children, its length is nearly double. The os is naturally always open; and where the neck has been frequently dilated by the passage of a child, its edges are widely separated, and so gaping, that they will easily admit the tip of the fore-finger. In touching these parts, it must be recollected, that the anterior lip is the largest, owing to the chink, or os, not being exactly in the mid-

dle of the cervix: it is placed more behind than before—a fact easily proved by examination. I have never known the os to extend from before, backwards; but I have several times, both in the married and unmarried, and even in women who have borne children, found the cervix remarkably small and compact, perforated by a most diminutive circular aperture, instead of the usual os. Very rarely, there is only the rudiment of a cervix, there being no glandular appendage. The aperture, in this case, is formed in the simple structure of the body of the womb; and slight inflammation may be sufficient for its closure or obliteration. Such an example has been detailed in the Guy's Hospital Reports;* and Dr. A. T. Thompson's case of dropsy of the womb supplies additional testimony to its occasional, though rare occurrence.

A large uterus, especially at its lower part, a large and soft cervix, a patulous os, fissured, indurated, and cicatrized, may all exist, without organic, and especially without active organic disease. Prior to, during, and even soon after the catamenial flow, the body, and particularly the neck of the uterus, is larger, and more supple than natural; and imparts to the finger a similar sensation to that communicated in the early months of gestation. Frequent sexual intercourse will also induce this state of parts. During natural and healthy menstruation, the orifice of the neck is very dilatable, and easily allows the passage of the finger: this will but rarely occur at other times, independently of disease; and the opinion will be unfavourable, if the finger, on passing into the canal of the cervix, shall touch a puckered, coarse, and rough membrane.

Induration and cicatrization, in slight degree, may result from lacerations during labour, and from the inflammation attendant on their union. In old women, it is especially important to remember, that the cervix naturally diminishes in size, and the contraction of its structure is almost invariably associated with considerable induration; but still, without disease. It has often occurred to me to verify this statement. I might enlarge here; but the structural varieties already enume-

* Vol. II. p. 258.

rated, are perhaps sufficient to guard a careful examiner against error. Deviations more marked and positive than these, attended by pain and discharge, justify a decidedly unfavourable opinion.

It will not be difficult to appreciate morbid change in the consistency of the neck: for although the cervix possesses the firmness of a gland, this may, by a practised examiner, be easily distinguished from the induration, with tenderness, of chronic inflammation; and still more easily from the almost stony or marble hardness of a scirrhous tumour.

Again, the unnatural softness and moisture of this portion of the womb, is probably indicative of slightly altered organization, of slow progress, and less dangerous character, where it is the result of present or former hemorrhages and leucorrhœa, than where it succeeds diffused or isolated induration. In the former case, it may continue for years, and perhaps to the end of life, without ulceration; while in the latter, it is often the forerunner of that breaking down and malignant degeneration so frequently seen in these structural maladies of the cervix. I cannot forbear to caution the practitioner against a hasty and alarming prognosis, *where unhealthy softness is connected with losses of blood and irregular catamenial discharges.* Such a condition is cureable; and occasionally, where little has been done, it has continued for years, perhaps till the final departure of the catamenia; and the cervix has then acquired its usual firmness. There are other states, not so easily defined, and which can only be recognised by a practitioner frequently in the habit of touching these parts:—on these I cannot dwell.

The sensibility and temperature of the os and cervix are neither of them considerable in health; and as, in a common examination, the moderate pressure of the finger ought not to produce pain, and as there ought not to be sufficient heat to excite notice, a practitioner can scarcely err in deriving, from these facts, supplementary information. Pain and heat, in high degree, are both present in inflammation of the cervix; *while in the early and more advanced stages of organic disease they are often, if not generally, absent.* Of course, where the disease is softening, and passing through the changes prior to ulceration, there will be more or less of heat and pain.

Abrasion and ulceration may both be detected by the finger, and in not a few instances, sufficiently satisfactorily to supersede the use of the speculum. Where the former is known to arise from temporary causes, and where the latter is the consequence of the breaking down of hard tumours, the delicacy of the patient may be consulted, without compromising her safety, by abstaining from the employment of this old and valuable instrument.

EXAMINATION BY THE SPECULUM.

It does not come within the scope of this work to give the history of the speculum. It may suffice to observe, that, by its use, the eye, as well as the finger, is made to assist in the diagnosis of organic diseases of the neck and orifice of the womb: for while the touch enables us to recognise structural changes in the bulk, firmness, and sensibility of these parts, the sight rectifies and perfects an erroneous or incomplete opinion, by showing the *nature and limits of ulceration, excoriation* or *eruption*, the *appearance* of the cervix and vagina in various stages of disease, and the *colour* and *consistency* of the accompanying discharges.

The best and most easily used speculum is made of tin or pewter, with an inner highly-polished surface. There need be no division in the cylinder, and the complicated screw is not required. I have, for hospital and private use, a series of these conical tubes, of various sizes: and the previous introduction of the finger into the vagina enables me to select the right-sized speculum. The length of the tube should be from five to seven inches, and it may or may not have a handle: on the whole, it is, perhaps, more readily used without one. The strong light of the sun is the best for these examinations, but a candle is an excellent substitute.

The rules prescribed for the introduction of obstetric instruments into the vagina will serve here. The labia being widely separated, the speculum is to be carefully and slowly passed, backwards and downwards, towards the point of the coccyx. The principal obstacle is at the entrance of the vagina; for when the resistance of its sphincter is once overcome, the speculum will easily traverse the rest of the canal. Care must be taken that the transverse portion of mucous membrane,

placed posteriorly, called the fourchette, is not stretched and carried forward by the instrument, as great pain and difficulty in the introduction will be the result.

The position of the neck is occasionally changed, being placed more forward or posteriorly than natural. To obviate this difficulty, and to bring the cervix within the end of the tube, the speculum must be elevated or depressed. Sometimes, from spasmodic contraction, induced by the passing of the cylinder, a fold of the mucous membrane of the vagina is forced into the aperture of the speculum, and may be mistaken for the cervix: the least movement, however, of the instrument, will cause the slipping away of the portion thus placed; and the recognition of the neck, which is glandular, smooth, and without rugæ, and paler than the vagina, is not difficult.

The whole circumference of a very large cervix cannot be examined at once: the position of the speculum requires attention; and if the parts are not morbidly sensitive, the instrument is easily and safely turned in the vagina: this caution is important, as very lately I overlooked a rather large ulcer on the inferior and posterior surface of the neck, from a neglect of it.

We may, then, by the speculum, accurately ascertain the different external morbid conditions of the cervix and its orifice; and in many instances, where the os is entirely or even partially open, the nature and extent of disease affecting the cavity of the neck may be readily known. And although the structural changes of the body and walls of the uterus do not admit of elucidation by the speculum, still the growths of its lining membrane are not entirely beyond the reach of its diagnostic agency: for if large, they will descend towards the orifice of the viscus; and if ulceration affect the uterine cavity, it is most probable that it will eventually reach the neck, and thus be brought within the scope of the speculum.

In health, the cervix uteri is, externally, of pale colour, having the aspect of polished skin; and it is easily distinguished from the lining membrane of the vagina, which, from its different structure and greater supply of blood, has a much deeper tint of red. These parts are naturally covered with a thick mucus;

a fact of importance, as, if it be not removed by lint or a soft brush, abrasions or ulcerations, being thus obscured, might be overlooked.

Valuable as is the speculum, its use has been indiscriminately and unnecessarily urged. In slight cases of uterine irritation and leucorrhœa, its employment is prejudicial; while, in leucorrhœal discharges of long standing, and in menorrhagia of months' and years' continuance, its introduction cannot be too strongly recommended: for it must never be forgotten, that these maladies rarely exist long, without more or less of organic change. If there be a suspicion of structural mischief about the lower part of the uterus, there ought to be no delay, not only in touching, but in seeing the seat of the suspected disease.

There are circumstances which entirely forbid the employment of the speculum. In very young and very old persons, its introduction is difficult, and sometimes altogether impossible, without laceration. The hymen in the young, and the great shrinking and contraction of the vagina in aged women, present obstacles so serious, that the use of the speculum ought to be given up, unless the necessity be extremely urgent. I have several times found membranous bands stretching across the vagina, and contractions of its calibre from cicatrices, which would have entirely impeded the passage of the instrument. There was lately an out-patient of mine at Guy's, whose vagina was so funnel-shaped at its upper part, as to preclude my touching the os or cervix, except by a probe, introduced through the minute aperture at the apex of the funnel by which the catamenia escaped from the uterus. Steatomatous tumours occupying the walls of the vagina, ovarian growths in the recto-vaginal septum, polypi, deep ulcerations of the vagina or neck of the uterus, large cauliflower excrescences, or bleeding fungi, all contra-indicate the use of the speculum. When the neck is inflamed, or much congested, or where the vagina is excessively sensitive, the introduction of the speculum should be deferred, till these various morbid conditions are ameliorated.

Making every deduction, which the enthusiasm of some individuals in its favour demands, the speculum must be regarded

as a most important addition to our diagnostic and curative means. It enables us not only to discover and nicely to distinguish the otherwise concealed diseases of the inferior or cervical portion of the womb, but, by the light which it throws upon the seat of the mischief, it affords great facilities in the exact application of remedies. It is much to be wished, that the advantages which it is capable of conferring were more early and extensively realised.

THE STETHOSCOPE

Is solely valuable, as a positive indication, where the beat of the fœtal heart is heard. It is only, therefore, in those diseases of the womb where pregnancy is suspected, that we require its aid. The "placental souffle" may be thoroughly imitated by the pressure of a tumour on the iliacs, or any of the large abdominal vessels. In Guy's Hospital my attention was once called, by Mr. Oldham, to two of my patients, lying in adjoining beds: the one, suffering from a hard tumour of the uterus, extending towards the left side; the other, in the seventh month of pregnancy, and enduring great pain from a malignant, and as it proved in a few weeks, fatal disease of the external genitals. In the latter patient, the "placental souffle" was readily detected, over the greater part of the upper portion of the uterus, beating synchronously with the maternal pulse. In the former, a very distinct "bruit de soufflet," as loud, and nearly as perfect as in the pregnant patient, was perceptible. This sign did not embarrass the diagnosis, as the tumour was not fixed, and could easily be removed from the iliacs, the "bruit" ceasing with its altered position. The sound, in both cases, was nearly identical: perhaps the "souffle" of pregnancy was more prolonged, and less sharp than the other.

THE DISCHARGES.

In the chapter on leucorrhœa, the reader will find some useful information as to the different sources and varying character of uterine and vaginal discharges. On the alterations which occur

in these, as the consequence of excitement, inflammation, and structural change, the practitioner must principally rely for the diagnosis, whenever an examination is denied. But the knowledge so derived, independently of the touch and the speculum, is necessarily restricted and uncertain. It is restricted, because there are but few uterine organic diseases, which, throughout all their stages, are attended by one discharge only, whether it be either mucous or watery, purulent or sanguineous; and it is uncertain, because several of these may be present at once, variously combined, as the consequence of an affection, usually attended by only one of them; and because diseased conditions of the reproductive organs, really differing from each other, as prolapsus, and scirrhous or submucous tumour, do occasionally, during some part of their progress, give rise to each of these different secretions.

Thus, a white discharge may be equally the sign of a structural disease, as of a merely functional leucorrhœa. It cannot, therefore, with truth be regarded, as the inseparable and unerring diagnostic of either lesion. To distinguish accurately, indeed, between a mucous and purulent discharge, is often in itself a difficult matter, unless both are placed together, and tests applied for each; and even then, supposing the information to have been obtained, it is only from an examination by touch and the speculum, that we can determine what particular structure is the seat of the affection. The prevalent notion that a purulent discharge is always yellow, and a mucous discharge always white, is incorrect; as the latter may assume every shade of colour between a white and a light green.

Again, as the os externum is the only outlet for the morbid secretions of the continuous mucous membrane of the vagina, uterus, and fallopian tubes, and for the glandular apparatus of the cervix, each of which parts may be differently affected at the same time, it is obvious that an intermixture of several discharges may occur, and be submitted to our inspection, which must necessarily prevent an accurate diagnosis. It is not affirmed, that the discharges attendant on an inflamed cervix or vagina, where, from the intensity of the inflammation they may have become acrimonious, of bad odour, purulent, and slightly san-

guineous, are for a continuance so like the discharges resulting from cauliflower excrescence of the os or carcinomatous ulceration of the cervix, that a distinction cannot generally be made. Such is not the scope of these observations. But it may with truth be affirmed, that until an examination has been allowed, a serous discharge has often been thought to be the proof of a malignant disease of the os, when it has really been only leucorrhœal; and a discharge of pus, mixed with blood and slightly odorous, has equally often excited painful anxiety, lest structural disease existed, when, in fact, neither the finger nor the speculum could detect any such mischief.

Let it, however, be understood, that long continued offensive, muco-purulent, and sanguineous discharges, are unfavourable signs, especially when attended by emaciation and local pain; nor must it be forgotten, if such discharges are accompanied by increasing aggravation of general and local symptoms, an unfavourable opinion must be entertained, till the proper inquiry, not confirming, may perhaps entirely remove it. The examples of persistent discharges, least likely to be associated with uterine structural change, are those which occur prior to and during the period of catamenial decline. It is not rare for these, even of unfavourable character, to continue many months, I had almost said for several years, and yet to cease entirely, on the final disappearance of menstruation. Still, such cases as are detailed (page 152), and many such exist, ought to induce great caution, not only in determining what the affection really is, but likewise, if there be a strumous diathesis, or if near relatives have suffered from glandular or malignant glandular disease, what are the chances of ultimate recovery. Thus, it may be inferred from these practical remarks, that while there are many instances in which the uterine and vaginal discharges, although long continued, yet not having assumed any offensive or sanguineo-purulent character, enable us to pronounce a correct and favourable opinion, there are likewise not a few of greater interest, responsibility, and complication, in which the prudent practitioner will abstain from giving any definite intimation as to their real nature, or from pledging himself to any positive prognosis, without the aid which an examination by touch, or the spe-

culum, can alone supply. Of course, in the detailed histories of the organic diseases, on which we are now entering, especial regard will be paid to the peculiarities of their discharges.

PROGNOSIS.

There are scarcely any diseases, if we except structural tumours of the mammæ, in which an opinion is so anxiously sought, as in cases of uterine growth. If it be suspected that there is cancer of the womb, alarm is instantly excited, and the popular and well-founded dread of this fatal malady, prompts that particularity of inquiry, which it is always difficult and sometimes impossible to evade. Often, when I have thought I had parried these pertinacious questions by some encouraging remarks, as to the probability, that although the disease might not be curable, yet that, by proper treatment, it would not seriously interfere, at least for a considerable time, either with the comfort or life of the sufferer, the inquiry has been renewed in a still more searching form. Frequently has the remark been made, "if this be really the same disease as cancer, it must eventually be fatal; and what equivalent advantage can accrue from the use of remedies, especially of those involving suffering and personal sacrifices?" Thus, on the very threshhold of the treatment, perplexity arises, and there is a fear, lest in the attempt to uphold the hope and energy of the patient, our own character for truth, foresight, and diagnostic accuracy may be compromised. There are few women who could endure the sudden divulging of the real nature of such a malady as cancer, without most injurious depression; and there are certainly not many, who, with a conviction of its fatality, like the sword of Damocles, impending over them, could practise as they ought, and pursue as they must, for any beneficial purpose, the self-denial on which its restraint so mainly depends. Although it is visionary to suppose that advanced carcinoma is cureable, and although the expression of such an opinion would justly expose us to the imputation of a lamentable deficiency of soberness and truth, still the door of hope must not be entirely closed. We

may fail to cure, yet may we protract life and relieve pain. The adventitious formation cannot be removed; but there are circumstances connected with its further growth, which, in the early stages of scirrhus, one of the most common species, may justify a hopeful prognosis.

It may, too, be urged, as a further ground of encouragement, that although these affections are malignant, originating in vitiation of the constitution, converting neighbouring parts into their own diseased structure, and eventually destroying life by ulceration, hemorrhage, and emaciation; yet that they are generally slow in their progress. As affecting the uterus, scirrhus is happily more frequent than any other species; and however much of scientific controversy there may still be, as to its precise pathology; whether the views of Hodgkin be more correct than those of Baron, Carmichael, or Cruveilhier; or whether the opinions of Müller be more accurate than any of them,—it is practically true, that the affection is ordinarily, and judging from my own daily observation, I might almost say, invariably, of tardy development. No one ought therefore to hesitate, especially in the early stages, to employ preventive and palliative means. Nor must it be forgotten, that there may be organic disease of the various parts of the uterus, without malignancy. There may be deposited, for instance, in the cervix, a distinct and hard tumour, the result of previous chronic inflammation; or the edges of the os may be indurated and puckered from the same cause; or there may be general enlargement of the cervix, with a hardness approaching to that of scirrhus, entirely as the consequence of inflammation following frequent childbirth and contusions of the part; and I scarcely know any practitioner who could at once accurately diagnose these various states; and there are few possessing the advantages of extended observation, either in hospitals or in private practice, who would hazard the happiness of the patient or their own reputation, by an early and unfavourable opinion. In such examples, it is right to treat the case as though it were not malignant disease; and, at all events, for a time to give an assurance, a most important item in the treatment, that whatever else the disease may be, it is not cancer. Many such conditions I have

seen removed entirely, by iodine and local depletion. The terms "sooner or later" are in their usual acceptation of wide import; but, in reference to the progress of disease, and especially of uterine scirrhus, their range is exceedingly extensive. If, then, by able prophylactic management, the growth of a malignant uterine tumour can be prevented for five, ten, or twenty years, it is scarcely possible that too great a sacrifice can be made for such a boon; nor will patients often complain, if such an advantage is only partially realized, of the self-denial involved in a long continued horizontal posture, sexual abstinence, spare diet, and the avoidance of either physical or mental fatigue. Let it, however, be understood, that it will be unwise to encourage higher expectations. Restraint of the growth within its present limits, the soothing of pain, the avoidance of mechanical pressure on neighbouring parts, if the tumour be not large before these means are commenced, may generally be insured; but if, from any motive, more than this be promised, the patient will be deceived, and an early withdrawal of her confidence, and the abandonment of the prescribed plan of treatment will assuredly ensue.

From these remarks it may be inferred, that the prognosis in uterine organic diseases requires much deliberation; and that practitioner will best consult the welfare of his patient and his own character for professional sagacity, whose prognostications are guided by the facts, rather than by the theories of these serious maladies; and who, while fully aware of the ultimate danger of malignant diseases, nevertheless remembers, that occasionally, when a quickly fatal issue has been predicted, marked relief, or at least many years of life, not without comfort and sometimes even of enjoyment, have falsified the too unfavourable and hasty opinion.

PATHOLOGY.

From what has been said in the preceding section on prognosis, the reader will have concluded, that *every* organic affection of the uterus is not cancerous. If the contrary were true, and every increase of bulk and induration were malignant; then,

not only would the same pathology explain every structural deviation, but the diagnosis also would be invariably easy. But this is not so; for there are enlargements and indurations, the immediate consequence of inflammation; and there are states of the uterus, and especially of its cervix, of which more permanent increase of bulk and hardness are the attendant signs, which cannot fairly be attributed to a cancerous diathesis. Vascular congestion, arising from various causes, dysmenorrhœa, irritable uterus, too frequent intercourse, and difficult and frequent childbearing, may lay the foundation of change of structure without malignancy. Doubtless, if there be predisposition to adventitious heterologous formations, such causes will favour their development; but if there be no such constitutional tendency, these unhealthy states may continue long without assuming an incurable character. In women, the mothers of numerous families, I have several times, independently of any change in the body of the organ, found the cervix large and hard; and when treatment had been long laid aside, I have, years afterwards, ascertained that although these conditions continued, yet that there was no development of malignancy. Such facts should certainly check hasty and unfavourable opinions of uterine tumours; and if they have their due weight, a more diligent and efficient treatment will be secured. It is indeed with a view to therapeutics that they are introduced; for some practitioners regard every alteration in the form, size, and consistency of the neck of the womb, as so irrefragable a proof of incurable disease, that persevering, active, and able treatment is scarcely thought of, still less practised.

On growths of the uterus decidedly malignant, much has been written. Numerous and distinguished authors have devoted themselves to researches on this important subject, and many excellent and elaborate works claim the attention of the student of this department of pathology.

It might be curious and somewhat amusing, to recapitulate the various theoretical opinions on the nature of cancer, from Hippocrates downwards, to Müller and Walshe; but I am not aware that any practical knowledge would be thus obtained.

To say, that Hippocrates regarded the disease as of invariably fatal issue, and that Galen thought its cause was black bile; that Paulus Egineta attributed it to the grossness of the humours, and that Heurnius believed there were two poisonous principles in cancer, the one of a putrid, and the other of a corrosive nature; is saying little more than that crude speculation occupied the time and the minds of these observers, to the exclusion of rational and strictly accurate pathological inquiry. Nor must it be expected in a practical work of this kind, that the numerous and disputed topics connected with the subject of cancer, shall be elaborately discussed. So far as the disease appertains to the female organs of reproduction, it claims attention; and without perplexing or fatiguing the reader, I trust its chief and most important points may be hereafter sufficiently illustrated.

To Dr. Walshe the profession is under great obligations, for, perhaps, one of the ablest and most complete essays on cancer ever published;* and we trust no long time will elapse, ere its accomplished author presents it to the medical world as a distinct work. Few pathologists, I presume, will question the accuracy of his definition of this formidable malady. "Cancer," he says, "is a disease anatomically characterized by the presence of scirrhus, encephaloid or colloid, originating in a general vitiation of the economy, and possessing the properties of assimilation, of reproduction, and of destroying life by a peculiar cachexia." Many authors have approached the comprehensiveness of this definition; and if the disjointed facts scattered throughout various works, were nicely analysed, and placed in juxta-position, they would confirm its simplicity and general truth. It is thus assumed, that *cancer* or *carcinoma* is a genus, and encephaloid, scirrhus, and colloid, are regarded as species. If the reader will peruse the accompanying tables of Dr. Walshe, he will find not only the varieties of the three species, but also their various synonyms; and when he has carefully studied the characteristics of each, he will concur in the opinion, that "great

* Vide Nos. 6 and 7 of the Cyclopædia of Practical Surgery. London, 1840.

as the number and varieties of these distinctive characters of encephaloid, scirrhus, and colloid are, they are insufficient to counterbalance the weighty reasons afforded by the following facts, for uniting them into a genus; reasons which induce some eminent pathologists to regard them as one and the same formation primarily: 1. The different species are found co-existing in different organs in the same subject. 2. They are even met with in one and the same organ, in close proximity. 3. After the ablation of a cancerous tumour, the reproduced growth frequently belongs to a different species from the original. Thus encephaloid follows scirrhus; scirrhus more rarely encephaloid (Müller); encephaloid appears in distant parts, after the removal of colloid. 4. In the hard state, encephaloid and scirrhus are not to be distinguished by their physical characters. 5. Structure, possessing the appearance of scirrhus, may soften into true cerebriform pulp."

Family.	Class.	Order.	Genus.	Species.	Varieties.	Synonyms of the Species.
Adventitious Formations.	Heterologous Formations.	Tissues.	Cancer, or Carcinoma.	Encephaloid	Common vascular sarcoma. Mammary sarcoma? (Abernethy.)	Spongy or ossivorous tumour. Ruysch. Palletta. Struma fungosa (testis). Callisen. Spongoid inflammation. Burns. Milt-like tumour. Munro. Medullary sarcoma. Abernethy. Cerebriform disease, or cancer. Laennec. Pulpy testicle. Baillie. Carcinus spongiosus. Good. Carcinoma spongiosum. Young. Fungoid disease. A. Cooper. Hodgkin. Medullary fungus. Maunoir. Chelius. Acute fungous tumour. C. Bell. Medullary cancer. Travers. Cephaloma. Hooper. Carswell. Carcinoma medullare. Müller. Soft cancer. Auct. Var.
					Solanoid. Recamier. Zang.	
					Nephroid. Idem.	
					Napiform. Idem.	
					Carcinoma fasciculatum vel hyalinum. Müller.	
					Fungus hæmatodes. Hey.	
					Hæmatode cancer. Auct. Gall.	
				Scirrhus ...	Pancreatic sarcoma? Abernethy.	Carcinomatous sarcoma. Abernethy.
					Napiform. (Recamier.)	Carcinoma scirrhosum. Young.
					Chondroid.	Scirrhous cancer. Travers.
					Lardaceous tissue. Auct. Gall.	Scirrhoma. Carswell.
					Carcinoma reticulare. Müller.	Carcinoma simplex vel fibrosum. Müller.
						Stone cancer. Auct. Var.
				Colloid.....	Pultaceous cancer.	Areolar gelatiniform cancer. Cruveilhier.
					Pearly alveolar ditto. (Cruveilhier.)	Carcinoma alveolare. Müller.
						Gum cancer. Hodgkin.

It will be seen by this table that carcinoma is distinguished as an adventitious heterologous tissue. The circumstance of being a tissue, susceptible of undergoing all the changes of increase and decay, is one of its important features. The characteristics of the three species of the disease are thus tabularly exhibited:

Encephaloid.	*Scirrhus.*	*Colloid.*
Resembles lobulated cerebral matter.	Resembles rind of bacon traversed by cellulo-fibrous septa.	Has the appearance of particles of jelly inlaid in a regular alveolar bed.
Is commonly opaque from its earliest formation.	Has a semitransparent glossiness.	The contained matter is strikingly transparent.
Is of dead white colour.	Has a clear whitish or bluish yellow tint.	Greenish yellow is its predominant hue.
Contains a multitude of minute vessels.	Is comparatively ill supplied with vessels.	(Its vessels have not been sufficiently examined as yet.)
Is less hard and dense than scirrhus.	Is exceedingly firm and dense.	The jelly-like *matter* is exceedingly soft; a colloid *mass* is, however, firm and resisting.
Is frequently found in the veins issuing from the diseased mass.	Has not been distinctly detected in this situation.	The pultaceous variety has been detected in the veins.
The predominant microscopical elements are globular, not always distinctly cellular, and caudate corpuscula.	The main microscopical constituents are juxtaposed nuclear cells; caudate corpuscula do not exist in it.	Is composed of cells in a state of *emboîtement*.
Occasionally attains an enormous bulk.	Rarely acquires larger dimensions than an orange.	Observes a mean in this respect.
Has been observed in almost every tissue of the body.	Its seat, as ascertained by observation, is somewhat more limited.	Has so far been seen in a limited number of parts only.
Very commonly co-exists in several parts or organs of the same subject.	Is not unusually solitary.	Has rarely been met with in more than one organ.
Is remarkable for its occasional vast rapidity of growth.	Ordinarily grows slowly.	Grows with a medium degree of rapidity.
Is frequently the seat of interstitial hemorrhage and deposition of black or bistre-coloured matter.	Is comparatively rarely the seat of these changes.	
When softened into a pulp appears as a dead white or pink opaque matter of creamy consistence.	Resembles, when softened, a yellowish brown semitransparent gelatinous matter.	Undergoes no visible change of the kind.
Subcutaneous tumours are slow to contract adhesion with the skin.	Scirrhus thus situated usually becomes adherent.	
Ulcerated encephaloid is frequently the seat of hemorrhage, followed by rapid fungous development.	Scirrhous ulcers much less frequently give rise to hemorrhage, and fungous growths (provided they retain the scirrhous character) are now more slowly and less abundantly developed.	
The progress of the disease after ulceration is commonly very rapid.	There is not such a remarkable change in the rate of progress of the disease after ulceration has set in.	
Is the most common form under which secondary cancer exhibits itself.		
Is the species of cancer most frequently observed in young subjects.	Is much less common before puberty.	Has so far been observed in adults only.

With these general observations, I pass on to the next chapter, reserving for distinct consideration, in their proper places, facts and theories, necessarily bearing on cancer, as occurring in the female organs of reproduction.

CHAPTER II.

Anatomical arrangement of the various structures composing the uterus, is the key to the successful study of its pathology; for each of these parts may, independently of the rest, be the seat either of functional disturbance or organic lesion. Nor is it less true, in reference to uterine growths even of the same genus and variety, that their development is greatly modified by the part of the organ in which they may happen to be placed. In accordance with such views, I shall classify these tumours according to their *locality*. Thus, tumours of the uterine walls, including the parenchyma of the organ, will be separated from the more malignant growths of the os and cervix; and these, again, will occupy a place in the classification, distinct from the pediculated and carcinomatous productions of the lining membrane of the uterus. By such a division, the diagnosis, the pathology, prognosis, and treatment of every lesion, will be correctly distinguished, and therefore better understood.

OF THE TUMOURS OF THE WALLS OF THE UTERUS, CHARACTERIZED BY INDURATION.

Definition.—*These are always either of fibrous, cartilaginous, or calcareous hardness, varying in size from a pea or a small nut, to the volume of a pregnant uterus of the later months. They exert only a slight influence on the constitution,*

and frequently exist almost unnoticed, till, by their magnitude, they press upon neighbouring structures, mechanically interfering with their functions : inflammation and its consequences may then ensue. Their malignancy is denied by many ; but there is probably sufficient evidence of their belonging to the scirrhous variety of carcinoma.

There are *two* examples of these growths, deserving to be distinguished from each other.

First. *Tumours, whatever be their size or induration, growing externally, and by projecting the peritoneal coat of the uterus, obtaining from it an external covering.*

Second. *Tumours often, although not constantly, of moderate induration and bulk, which, by growing internally, carry before them, and are thus invested by the mucous membrane lining the uterine cavity, and hence obtain the name of Submucous tumours. It need scarcely be remarked, that they are accompanied by an entirely different class of symptoms.*

As preliminary to further remarks, it may be advisable to recapitulate some of the numerous synonyms of these tumours. By many authors, the names of *fibrous or fleshy tubercle* have been used : doubtless, because their texture was, in the specimens examined, softer than usual. By others, they have been denominated, *scirrhous cancer, scirrhous uterine growth, carcinoma simplex vel fibrosum, stone cancer*, &c. And when their pathology is examined, satisfactory reasons may, I think, be adduced to show, that, by whatever name they are designated, they ought to be regarded as malignant, although occupying the lowest place amongst adventitious heterologue formations.

History and Symptoms.—As these more indolent growths may be either single or diffused through several portions of the uterus ; as they may be either wholly imbedded in the proper structure of the organ, or only connected with it through the medium of a peduncle of greater or less extent and firmness ; as they may be of fleshy and fibrous, or of cartilaginous, and even of calcareous hardness ; as their size may be only that of a marble, an orange, the fœtal or adult head, or

even of the impregnated uterus, nearly at the close of gestation; it follows, that the attendant symptoms must correspondingly vary, although the character of the inconveniences they produce is tolerably uniform. For, while in their early stages they rarely interfere, either with the nervous sensibility of the womb, or by their size derange the position or functions of neighbouring viscera; so, when their volume is greatly increased, mechanical pressure on the surrounding structures, and its consequent evils, seem, except in some rare cases, to comprise the whole of the mischief. Still, it must be allowed, there are cases where pain in or about the tumour itself, is a frequent source of complaint. This may arise from pressure on a nerve, or on some of the adjacent parts, from the more cancerous character of the growth itself, from changes connected with its further development, or from diseased action in some part of its structure. In such instances, the constitution is more implicated, there is frequent fever, indigestion, and constipated bowels; a quicker pulse, and slight but progressive emaciation. In some women the growth attains a certain size and induration, and is afterwards quite stationary, neither its dimensions nor condition undergoing any further change; such patients, as already observed, suffering little beyond the inconvenience of weight and occasional pressure. In the hospital and in private practice, many such cases are within my recollection; and where, for years to come, judging from the past, neither the moderate enjoyment, nor the usual duration of life, appears likely to be at all curtailed.

But this, unfortunately, is not the invariable course of these lesions; as, occasionally, after months or years of inactivity, a period at length arrives, when their growth and the results of it, are so conspicuous and decisive, as to demand all the prompt and efficient relief we are able to give. In such states I have found the iodine extremely useful, always excepting in utero-gestation. To some who have not studied and observed the course and result of these tumours, it may appear singular, that conception should occur: but let it be remembered, that they interfere only slightly with the general health,

menstruation being almost as regular as when the uterus is not structurally diseased. It is remarkable, also, that pregnancy occasionally takes place when these growths have existed for years, and when that period has arrived at which the faculty of conception might be supposed to have almost ceased.

Nor is it to be forgotten, that pregnancy, in such a condition of the viscus, is imminently dangerous. The tumours soften during the later months; the increased vascular supply leads to inflammation; unhealthy suppuration is established; and death generally occurs, if the tumours be of large size, soon after parturition. These facts, and the inferences deducible from them, first, I believe, pointed out by myself, have now, I think, produced their just impression. Formerly, when they were propounded, and when premature labour, artificially induced, was, under certain conditions, proposed as the appropriate treatment for pregnancy so complicated, the remedy was regarded as of doubtful value; but of late, the prejudice has greatly subsided, and the argumentative and practical observations of Dr. Ingleby, in his able work on Obstetric Medicine, have gone far to elicit the truth of my views and to corroborate the practice founded on them.

It need hardly be mentioned, that these tumours rarely attract much attention, till by their bulk, they either project the abdominal coverings, or partially prevent the easy evacuation of the bladder or rectum. Such inconveniences, and the pressure and contusion of neighbouring viscera, are frequently aggravated by excessive induration of the encroaching growth; or, if the tumours have, from repeated inflammation, contracted firm adhesions, they may become fixed, and almost immoveable, and thus occasion distressing local tension, and almost constant pain. Pathological changes also, unconnected with increased bulk, are occasionally occurring. I do not refer to softening, which is generally appreciable, but to increased induration, even to the extent of *cartilaginous*, or *calcareous* hardness. Ossification commencing with the central portion of scirrhous tumours, and

spreading thence to their periphery, is said occasionally to convert the whole mass into bone. M. Trousseau has frequently observed this mutation in bitches; and instances scirrhus of the uterus, as being especially prone in the human subject to such conversion. Breschet regards "conversion into bone or cartilage," as affording evidence of excessive activity of nutrition in the transformed part; while Hodgkin, with much more truth, considers osseous formations comparatively more rare in encephaloid than in scirrhus, and attributes this to the greater vitality of the former. Dr. Walshe believes, that if we exclude from consideration the bony lamellæ actually continuous with some part of the skeleton, and which form a marked characteristic of certain cancers connected with osseous structure, the phenomenon in question will be found to have been much more written of than observed.

Pathology. — I may perhaps be censured, for having thus associated the fibrous and hard growths, so often developed in the parenchyma, or serous or mucous investitures of the uterus, with malignant diseases. I know that a contrary opinion is held by some able men, amongst whom may be mentioned Meckel, Laennec, Andral, Lee, Carswell, and Bayle. The last-named pathologist and Lobstein, have indeed placed fibrous tumours amongst those adventitious structures incapable of becoming the seat of carcinoma; a position, however, formally denied by Dupuytren, and by our distinguished countryman Dr. Hodgkin. It would not accord with the practical intention of this work, to enter at length into the difficult and complicated, and yet deeply interesting questions involved in the anatomy, physiology, and diagnosis of the varieties of cancer: but yet I must avow my conviction, after a careful and renewed examination of these tumours, that they are genuine cancerous productions. The following reasons appear to me conclusive:—1. They possess the structure of compound adventitious cysts, the basis of this class of heterologue formations. 2. In the colour of the contained mass, and in the arrangement of the membranous septa or bands, the containing tissue; they are identical with scirrhus. 3. In hardness, oc-

casionally justifying the application to them of the term stone cancer; they are not to be distinguished from the varieties of carcinoma already mentioned. 4. They occur very frequently in conjunction with growths of undoubted malignancy in other parts of the uterus. 5. And lastly, they possess one especial attribute of malignancy, incurability.

It may be urged, that, definite as are these conditions, the sum of them does not endow these growths with the power to assimilate different tissues to their own substance, nor with the capability to produce that peculiar cachexia by which cancer destroys life. No one can deny, that the hard or fibrous tumour is the predominant organic disease of the walls of the uterus; and it must be granted, owing to their simpler structure as compared with the cervix, and the relation which always exists, as to malignancy, between adventitious growths and the texture in which they are produced, that an indolent and benign character generally appertains to this variety. Still there are more points of resemblance to carcinoma than might be supposed; for these growths do occasionally disorganize the structure of the uterus, as may be seen by preparations in our different Museums, and they often destroy life (vide Cases) by that softening, degeneration, and breaking down, which can hardly be called ulceration, but which is peculiar to cancer. In many examples, also, one of which will be narrated, a fatal issue occurs in connection with, and apparently as the result of the cachexia of malignant disease. And, lastly, I believe it would be difficult, if not impossible, supposing the diseased masses to be removed from their respective sites, to distinguish between a so-called fibrous tumour and a genuine carcinomatous tubercle. On one occasion, I made sections of growths, coexisting in the same individual, taken from these distinct localities, and scarcely any appreciable difference could be discovered in their structure and arrangement; although, certainly, from the cut surface of the tumour of the cervix, there was a freer exudation of cancerous ichor. Notwithstanding these points of similarity, it is probable, that the differences happily existing in the progress, and termina-

tion of the two varieties, will still be viewed by many as justifying the exclusion of fibrous tumours from the class of cancerous diseases.

For the *Diagnosis and Prognosis*, reference must be made to pages 260 and 276, premising only, that it is often exceedingly difficult, where the growth, occupying the abdominal cavity, is large, filling perhaps its greater portion, to determine whether the uterus or ovary, or both, may not be diseased. Occasionally, after repeated examinations, even by those accustomed to make them, and a careful appreciation of all the signs, a positive diagnosis can scarcely be made.

Treatment.—It has already been stated that cancer is incurable; but this declaration, although essentially true, requires qualification, lest it prevent all effort for its relief. Still it is not intended to be affirmed, that we possess any remedy by which the general vitiation of the system, on which cancer depends, can be neutralized; nor that the disease is more than very rarely removed by resolution. But it may be granted, in external cancerous tumours, that iodine, and probably other medicines also, as the preparations of lime, conium, arsenic, mercury, &c., have occasionally effected absorption, although perhaps, as a coincidence only, or at most as the consequence of some change of nutrition, equally beneficial with a cure: still, if by reference to such effects, and to those equally fortunate arising from operation, it be affirmed, that the complaint could not have been cancerous because it was cured, then the question is at once concluded, and the issue unfairly decided, neither reasoning nor unprejudiced observation being allowed any adequate scope.

There can be little doubt that cancer has an inherent tendency to grow, and not to melt down or resolve. And yet it is to this especial point of treatment, and to the attempt, by medicine and diet, so far to improve the general health as to prevent further increase, that I wish principally to direct attention.

Mr. Travers states, "that the solution of chloride of lime effected the absorption of a large tumour, in the course of some

months, regarded by competent authorities as scirrhus, in a lady whose other breast had been extirpated for that disease. Not long after, she died of asthma from diseased lungs; the scirrhous tubercle appearing not only in the chest, but in several of the abdominal viscera."

Dr. Walshe, also, whose testimony in confirmation of my own views *of the remedial value of iodine* first promulgated in 1835 in Guy's Hospital Reports, I gladly republish, remarks, "that the external use of this drug, in the form of ointment, sometimes completely removes tumours, possessing the characters of scirrhus, where it has been had recourse to at an early stage of their development, is a fact of which we have witnessed some examples. The truly cancerous nature of such growths may of course be questioned; yet a trial of iodine externally, provided the part be indolent, and its use excite no irritative action in the tumour, is certainly advisable: the length of the trial should be regulated by the apparent influence produced on the tumour. An excellent ointment is composed of five grains of iodine and a drachm of the ioduret of potassium, to an ounce of prepared lard. The ioduret of lead is sometimes well borne, where the former combination proves irritating."

That this substance exerts, almost invariably, a very marked influence over the glandular system, admits of no doubt. Serres, Majendie, and Dumeril, in their Report addressed to the Royal Academy of Science, on a Memoir by M. Lugol, on the use of iodine in scrophulous diseases, remark, "that, applied externally, its local action has always been very sensible: it excites on the surfaces of ulcers a feeling of smarting, accompanied with painful itching. This application to the diseased surfaces changes their appearance, and frequently produces as appreciable an effect as that produced by mercury on venereal ulcers. However, the mode of its action does not appear to be invariably the same. *Sometimes the iodine seems to melt down, and resolve the tubercles.* Sometimes, on the contrary, it urges them on to rapid suppuration. Iodine (say the reporters) has never, in the diluted form, caused emaciation, nor produced

expectoration of blood, nor other accidents which many have imputed to its action."

I have used iodine in diseases of the body, the mouth, and neck of the womb, and the different success has been precisely what might have been expected. In the walls of the uterus, which are not glandular, it has generally restrained the activity of the disease, confining its bulk within the limits it had attained prior to its exhibition; and after watching some of these cases for several years, there has been no increase of the affection.

The inferences I have drawn from the use of this medicine are as follow:

First—Its internal administration, and its use, by inunction, is decidedly beneficial; the advantage, if the remedy be judiciously employed, being rarely attended by constitutional injury.

Secondly—In hard tumours of the walls, or cavity of the uterus, resolution, or disappearance, is scarcely to be expected; since the growths are adventitious or parasitic, and are not imbedded in glandular structure. Here the prevention of further deposit—in other words, the restraint of the lesion within its present limits, and the improvement of the general health—will be the extent of the benefit derived.

It must not be supposed that the use of the iodine is empirically to preclude the employment of other means: cupping on the loins; a mild, animal, and unstimulating, and often, for a time, a milk diet; gentle aperients, and the warm poppy hip-bath, are important adjuvants. In the appended cases it will be seen that I have employed leeches and setons, with marked advantage; and there can be no doubt that sexual excitement must often exercise a prejudicial influence.

Second.—*Submucous tumours, usually, although not invariably of moderate induration and bulk, growing internally, and obtaining a covering, not from the peritoneum, but from the mucous membrane lining the uterine cavity, and giving rise to different, and certainly more immediately dangerous consequences.*

History and Symptoms.—This is an interesting and important variety. In the majority of instances, hard or fibrous tumours

grow externally, and rarely, and according to some authors, never, either ulcerate or bleed; but these submucous growths, by their increase in size, distend the uterine cavity; and stretch and irritate the mucous membrane, and thus give rise to frequent, excessive, and fatal hemorrhage. The catamenial secretion also is generally increased, and diseased change of the uterine mucous tissue occasionally occurs.

It is observed, when these tumours can be touched during life, that they are sensitive and painful, unlike polypi: and after death they are found to possess, either a laminated and fibrous texture, or the stony hardness of real scirrhus. It is rare to find these tumours thus encroaching on the uterine cavity; for of thirty examples, in Guy's Museum, there are only three, at the most four, where the growth is so placed. Thus it may, I think, be assumed, that the location of them now mentioned is unusual; and, if so, hemorrhage from such growths will, of necessity, also be unusual. Cruveilhier and Dupuytren have probably been misunderstood by those who suppose that they regarded such an event as frequent. Certainly, if this be their conviction, it is opposed to the opinions of most pathologists.

Discharges of blood therefore from the uterus, continuing longer than the common losses connected with catamenial derangements, may arise, not only from an inflammatory or congested condition of the viscus itself, from polypi, or from growths more decidedly vascular and malignant, but from hard or fibrous tumours. It has been long well known, that these growths rarely ulcerate, excepting when they occupy the mouth or neck of the uterus; but it is a fact more recently established, that they give rise to bleedings of a continued, alarming, and fatal character: and further, after death, that the mucous membrane covering them, may be entirely free from ulceration, or even abrasion: thus tending to confirm an opinion which I entertain, that the bleeding is principally, if not entirely, furnished by the tissue covering the surface of the tumour, rather than by the tumour itself.

The peculiarity of these examples consists in the occurrence

of the bleeding prior to ulceration; so that we must always bear in mind, in hemorrhage from the unimpregnated uterus of unusual frequency, resisting the most judicious and persevering treatment, that there may be a tumour of the kind now described, distending the cavity, and out of the reach of the finger, maintaining so congested and inflammatory a condition of the mucous membrane, as almost to render these bleedings necessary for its partial relief.

The statistical facts already adduced lead to the belief, that these are, happily, singular cases; yet it is valuable to know, that such a cause really exists; as it may lead to greater diligence in the use of early, and perhaps antiphlogistic remedial measures.

It has of late been assumed, that there is much similarity between hard and fibrous tumours and uterine polypi; and, on distinguished authority, it has been affirmed, "that they not unfrequently become uterine polypi, simply by descent, and the consequent formation of a stalk." That there are points of similarity between the two diseases, although these have probably been overrated, I do not question; but that a genuine hard or fibrous tumour ever becomes a pediculated polypus, I can scarcely believe. A specimen of such a change, Guy's Hospital Museum does not supply. That one of these hard fibrous tumours may very rarely find its way into the uterine cavity, is allowed, because the statistics of the disease prove it; and that prior to the patient's life or her powers being destroyed by the bleedings, which, in this situation, the tumour may occasion, the growth may, as a *most unusual* occurrence, descend to the lowest part of the uterine cavity, distend and pass through its cervix, and ultimately find its way into the vagina, may also be conceded; but it will be a hard or fibrous tumour still, although its altered situation, and the bleedings attendant upon it, may justify and even demand its removal by the same means as in polypus.

In *structure*, with some few exceptions; in *sensibility*, both in the growth and the surrounding parts; and in *vascularity*, as well as in *many other particulars;* there is a marked difference

between the hard or fibrous tumours of the cavity now described, and polypus.

An inspection of preparations of such morbid growths cannot fail to demonstrate how much more distinct, generally, in the tumour, than in the polypus, is the induration of texture; and certainly the white membranous lines are much more defined and striking in the former than in the polypus. Thus, while it is somewhat rare, except in old, large, and condensed polypi, to find this indurated and linear structure: a genuine, hard, or fibrous tumour, except when breaking down, is never without it.

In the number of the growths there is decided dissimilarity: it is common to meet with many hard tumours in the same uterus, while it is very rare to find more than one polypus.

In the method of growth there is a conspicuous distinction. The polypus, probably because it is not malignant, does not affect the organization of surrounding parts; the muscular walls of the uterus being rarely thickened, however large may be the polypus. The hard tumour, on the contrary, may, and often does, convert, by degrees, the uterus in its vicinity into its own diseased structure.

The internal tissue of many polypi is spongy and cellular, and copiously permeable by blood, a circumstance scarcely ever appertaining to the hard or fibrous tumour. I was much struck, a few days ago, by a preparation in the Museum of St. Bartholomew's Hospital, where a hard tumour, imbedded in the walls, had received no injection, although the vessels in every other part of the uterus were beautifully filled; a circumstance lending something more than probability to the opinion I have just now expressed, that the hemorrhage, in these instances, is furnished by the membrane covering the tumour, and not by the growth itself; while, in the polypus probably, with very few exceptions, the bleeding occurs from the vessels in its structure: as is satisfactorily proved by its texture, and by the difficulty of getting any mercury, or other injection, retained in its vessels, however carefully it may be thrown in. In the polypus injected by Mr. Sibson and

myself, the mercury quickly escaped through the orifices of the vessels opening on its surface. Sir Charles Clarke affirms, that if coloured injection be thrown into the vessels of the uterus, so as to make the substance of the uterus quite red, none of it passes to the tumour of fleshy or hard tubercle.

The want of sensibility is an almost invariable condition of true polypus; while the hard or fibrous tumour is never entirely bereft of sensation.

Pregnancy may, and often does occur in connection with hard or fibrous tumours; rarely, if ever, when there is polypus, except where the growth arises from the cervix or os. There are, so far as I know, very few such pregnancies on record.

Other diagnostic differences might be stated; but enough, probably, has been adduced, to show how very dissimilar the two diseases really are.

In the treatment, and its results, there are distinctions worthy of notice.

There is no remedy for polypus, but removal. Medicine is of no avail; and astringent injections are entirely useless. Nor am I aware that a polypus was ever spontaneously cured by absorption.

A hard or fibrous tumour has once, in my own practice, disappeared without the use of any medicine: and Sir Charles Clarke mentions a similar case, "where the tumour, as big as a child's head, could be felt through the parietes of the abdomen, just above the pubes: upon its surface could be felt two smaller tumours; one, the size of a man's fist; and the other twice this size." The patient had laboured for some time under a very profuse discharge of blood from the vagina. A variety of means were employed for the relief of this case, for two years. Upon examining the abdomen at the end of this period, the tumours could not be discovered; and after death, the uterus was found as large as that of a woman at the end of the fifth month of pregnancy. Upon the anterior part of it, near the fundus, were found two small tumours, as large as peas; which were probably

the same tumours before felt, of the size above mentioned; as there was no other vestige of them. These tumours were of a hard and resisting nature; and were lying between the muscular part of the uterus and the peritoneum covering it." Mr. Carmichael, too, maintains, that scirrhus occasionally admits of cure by resolution.

The ligature can scarcely be expected to produce equally satisfactory results in both diseases. The sensibility of the hard tumour, and the probability there is that a portion of the uterine structure shall be included within its grasp, will induce less favourable anticipations of decided benefit from its use. The hemorrhage is almost invariably and permanently restrained in polypus, by the application of the ligature; but the implication of other portions of mucous membrane than the part of it covering the hard tumour, may still maintain continued, although diminished, loss of blood.

The treatment of these cases is far from satisfactory: palliation, in most, is all which can be expected: still, the certainty in some instances, and the great probability in others, that the hemorrhage depends on these growths, will lead to more careful and protracted management. Entire abstinence from sexual intercourse—as well to avoid the certain and great danger of pregnancy, as the great yet lesser evil of excitement—must be rigidly enforced. A patient known to be thus affected, ought for years to practise such a degree of self-denial. The recumbent position, and modified but continued antiphlogistic measures, will often be demanded; and the diet, although nutritious, should never be generous and stimulating. A practitioner in these maladies will be cautious how he employs the secale, as an injection, or as an internal remedy. In my hands, it has appeared to stimulate the mucous membrane, and to increase the hemorrhage. Narcotics, especially in the form of suppositories, have been beneficial; and the poppy and conium injections into the vagina, used cold, have appeared to restrain the bleeding. An aperient, and occasionally a purged condition of the bowels, has had a similar effect. After repeated and extensive hemorrhage, these and other measures must be strictly pur-

sued: nor will a disease of this nature allow the sufferer to indulge in much physical or mental exertion.

Life, in most instances, where the disease is early discovered or suspected, may be prolonged; and perhaps with a good measure of quiet and passive enjoyment, if the plan now prescribed be sedulously pursued; but on no other terms. It is possible that the tumour may temporarily cease to grow, and that the investing membrane for such period may not be the subject of repeated congestion and inflammation. Such appears to have been the result in Case 48. More commonly, however, palliation and partial exemption from the bleeding is the extent of the benefit obtained.

How far iodine, aided by mild antiphlogistic treatment, may accomplish a suspension of the diseased action, I do not know; but I am favourable to its employment; nor can I think it impossible that this same agent may induce absorption.

I shall select only a few out of the many cases collected by myself, in hospital and private practice; preferring those which exemplify the usual course and progress of these tumours, and the more efficient methods of treatment. And if some of my readers regard their narration as unnecessary, I am convinced, from the intimations I have received, that the majority think differently, and believe with me, that although our knowledge of disease may be based on facts, and most ably condensed, yet that it will often fail, without the abridged detail of carefully recorded cases, to produce a practical and useful impression. If proof of the value of such illustrations were necessary, it might be found in its near approach to clinical teaching; the best of all expedients for imprinting medical knowledge indelibly on the mind.

Case 43.

ILLUSTRATING THE EFFICACY OF THE TREATMENT BY IODINE.

REPORTED BY THE CLINICAL CLERK.

Mrs. ——, aged 45, was admitted into Mary's Ward, Guy's Hospital, January 23, 1834.

She has been married eleven years, without children; is still menstruating; and has invariably enjoyed good health, with the exception of occasional hysteria.

Six or seven months ago, she first perceived a small, hard tumour, about the size of an orange, situated low down in the hypogastric region: it produced neither pain nor inconvenience, and has therefore been entirely disregarded.

It is nearly as large as the adult head, reaching some way above the umbilicus, and occupying the central part of the pelvic and abdominal cavities. It is lobulated, but very firm; and, by its pressure, prevents the easy evacuation of the fæces and urine. The os uteri is patulous, hard, and puckered; the cervix is tender, and excessively indurated: pressure by the finger on these parts produces pain.

The whole uterus is low down in the vagina. This canal is hot: painful on touch at its upper part; and there is constantly escaping from it a discharge of white, opaque, purulent-looking matter.

Applicentur Cucurbitulæ cruentæ tumor. bis, et detrahantur sanguinis ℥x.

Applicetur Ung. Iodin. cervici uteri, etiam tumori abdominis, more solito.—Sumat Julep. Iodin. ℥i. ter die.

Feb. 10. She is improved in health.—The iodine makes her giddy.

March 4. She leaves the hospital to-day, materially improved; and is to be an out-patient. She is much more robust in her general health, than when she commenced the use of the iodine.

March 22. To-day, I have carefully examined her, at my own house. The catamenia appeared, as usual, last week. The tumour, externally, is greatly diminished; not reaching the umbilicus, by at least an inch: it is also much softer, and its lobulated feel is more distinct and positive. She says, too, that her sensations are greatly improved, having lost the feeling of pressure and distension; and she attributes a good deal of the improvement to the recumbent position she has now maintained for two months.

It is however internally that the greatest improvement has taken place; the os is less patulous; its edges less puckered and irregular; and its induration is so far diminished, as to lead to the hope that, by attentively pursuing the treatment, it may be altogether removed.

April 17. The tumour is getting less, and it is now very moveable: it has diminished so much, as scarcely to exceed the size of a very large orange: internally, the puckering of the os, and the excessive induration of the cervix, are quite removed; and I should, if examining them for the first time, consider them nearly, if not quite, healthy. The iodine does not emaciate, nor nauseate.

Case 44.

LARGE HARD TUMOUR ADVANTAGEOUSY TREATED BY IODINE.

REPORTED BY THE CLINICAL CLERK.

Mary ——, aged 28, was admitted into Guy's Hospital, March 21, 1833.

The patient first perceived an enlargement in the right hypogastric region about three years since. As it did not produce inconvenience or pain, and was unattended with any symptom which alarmed her, she failed to apply for medical advice. During the last twelve or eighteen months, she has suffered so severely from lancinating pains, in and about the uterus, attended by stranguary and tenesmus, that her health is greatly impaired. She states, that tumour has trebled its size within the last three months: it requires a considerable effort to walk. Her stomach is highly irritable; digestion is imperfectly performed; and she has gradually lost flesh. Pulse 110, rather hard: skin hot at night: sleep much disturbed. The catamenia have been regular in their

recurrence, though their flow has been accompanied with considerable pain.

On examination, Dr. Ashwell reports :—

"I find the uterus nearly of the size of the adult head, and placed on the right side of the mesian line, occasioning a visible protrusion of the abdominal parietes : it is very hard and unyielding. On the left side there is a hard tumour, projecting posteriorly, and pressing on the sigmoid flexure ; giving rise to the pain complained of in that region. On examination, per vaginam, the os is healthy and smooth ; but there are two hard tumours, about the size of a hazel-nut, attached to the anterior part of the cervix, altering its position, and making pressure on the urethra. The cervix is painful, on being touched; and exuding from it is a purulent acrimonious discharge."

She was ordered to take five minims of the tincture of iodine twice in the day; and at night, the nurse was enjoined to rub a small portion of the unguentum iodinæ over the tumours. Castor-oil was daily administered, to regulate the bowels : and the local pain and irritation were alleviated by an opiate at night. The iodine produced both local and general excitement ; and at one period during its employment, an obstinate epitaxis supervened.

A month after admission, when this plan of treatment had been steadily pursued, Dr. Ashwell examined, and reported :—"I find little alteration in the external tumours attached to the walls : but those situated on the cervix are softer and resolving ; though still so far indurated and enlarged, as to occasion mechanical inconvenience."

It would be superfluous minutely to detail the progress of this case. The iodine was perseveringly employed, and was omitted only when its constitutional effects were visible. After a lapse of eight months, the tumours on the cervix had entirely disappeared, and this portion of the uterus resumed its natural size and character. The tumours felt externally, and, which probably occupied a portion of the uterine cavity, remained stationary. She remained in the hospital thirteen months ; and at the expiration of this time she was enabled to walk between two or three miles, with comparative ease : her general health had greatly improved, and she had assumed a more rounded and robust appearance. Accounts have since been transmitted by herself; in which it appears she has had no further need of medical advice; that the tumour of the parietes has ceased to enlarge ; and that she is in the enjoyment of good health. It is now eight years since she left the hospital.

Case 45.

LARGE HARD TUMOURS. IODINE USED BENEFICIALLY.

Mrs. ——, aged 44, consulted me, at the late Dr. Babington's request, on February 7th, 1832. She had been married five years, without the occurrence of pregnancy. Her health during three years of that period, had been good; and, even when I first saw her, she had the aspect of a woman free from any serious disease. About two years before, she perceived a "hard lump" in the hypogastric region; which also attracted the notice of an eminent obstetric physician, who was at the time attending her in an attack of peritonitis. Since March 1830 the tumour had been entirely disregarded; and she now solicited medical assistance, in consequence of inability to walk, impaired appetite, increasing pain in the hypogastric region, and emaciation, especially affecting the upper and lower extremities. The catamenia had never been interrupted, but their approach was invariably attended with pain.

On examination externally, I found two tumours; one situated in the right groin, low down on the body of the uterus; and a second tumour, harder and more distinct, occupying a large space of the anterior surface of the fundus of the uterus, producing an inequality of the abdominal surface, quite visible to the eye.

By a vaginal examination, the uterus was perceived to be exceedingly enlarged, and nearly as hard as cartilage. The os was easily found; but its situation was greatly altered, the enlargement of the cervix (which was lobulated, and very hard) pushing it upwards and forwards, so that it pressed on the neck of the bladder and urethra: the edges of the os were puckered, and slightly tender to the touch: and, by the speculum, it was seen that they were red.

The diet was regulated, to consist of milk and animal food, with half a pint, or a pint, daily, of mild ale; wine or spirituous liquids being absolutely forbidden. In this, and indeed in all the cases where the os and cervix were affected, it was desired that marital intercourse should be avoided as much as possible.

Sumat. Tinct. Iodin. gutt. v. ex Aquâ ℥ Saccharo permistâ, ter die. Utatur Ung. Iodin. massâ instar nucis Moschatæ cervici uteri, etiamque tumori abdominis, quâque nocte.

It would be tedious to pursue this treatment through the six or seven months which it occupied. Suffice it to remark, that occasionally, from its peculiar effects, the iodine was temporarily suspended. Within four months, the os and cervix were reduced nearly to their natural size; and the symptoms arising from pressure on the bladder, and interference with the urethra, passed away: there was, however, no perceptible diminution of the abdomino-uterine tumour: still, she resumed her usual activity; she walked without inconvenience; her appetite returned; and she entirely regained her flesh.

I examined this lady about September 1835, three years and a half from the commencement of the treatment, and nearly three years subsequently to laying aside the use of the iodine. I found the os and cervix entirely healthy. I was informed that menstruation was regularly and naturally performed; that sexual intercourse was not productive of injury; and that her strength and vigour were entirely re-established.

During the present year, 1841, this patient has corroborated the above report. In June, during my attendance on her husband, who subsequently died, an examination was permitted; and its result was entirely confirmatory of the facts already stated.

Let it not be thought that this remedy is empirically to exclude the agency of other and valuable treatment. Such is not my view, nor at all accordant with my observation. All I claim for the iodine, in this first class of cases, is just that which I have already stated, viz., that in some, indeed in most of the examples in which I have been enabled fairly to employ it, in conjunction with occasional depletion and mild diet, it has, at least for a time, arrested the disease, and thus procured a temporary exemption from its inconveniences.

Case 46.

HARD AND LARGE TUMOUR OF THE PARIETES OF THE UTERUS.

In *November* 1840, I met Sir James Clark in consultation on the following case:—

Mrs. ——, æt. 40, has been married eleven years, and although pregnancy has occurred, she has never borne a living child. Her health has generally been good, her temperament lively, and her habits active. During the summer of the present year, Mrs. —— had a severe illness, primarily inflammation of the peritoneum, but followed by fever. In the latter part of September, she first discovered an enlargement in the hypogastric region, immediately above the brim of the pelvis, and towards the left groin, which was tender, but not very painful. Soon afterwards, however, it became larger, and as there were dartings about the growth, and occasional paroxysms of severe suffering, a careful examination was made (Nov. 20th), when a growth of considerable induration was discovered. It had risen three or four inches towards the umbilicus; and although it passed a little to the right of the mesian line of the body, by far the larger portion was in the left hypogastric region. The cervix uteri was swollen, patulous, and indurated in several spots. There was no difficulty in relieving either the bladder or the intestines; but there was some emaciation, and the pain was sufficient to induce her to keep almost constantly the recumbent position, and to confine herself entirely to the house.

A light, nutritious diet of fish, chicken, and mutton, with some wine and water, was ordered. A mild aperient pill, and the following mixture were also prescribed:

℞. Ferri Tartrat. Ammon. ʒj. Tinct. Iodin. ʒss. Tinct. Card. C. ℥j. Aquæ distill. ℥vij. M.ft. Mistura.

One or two tablespoonfuls to be taken twice or three times daily.

The local measures were leeches, on alternate mornings, to the tumour; the use every night of the hip-bath; and the constant application, by means of linen compresses, covered by oiled silk, of the poppy fomentation.

Such was the plan pursued for nearly five weeks, at the end of which

time the growth had lessened considerably, and there was but slight pain. At this period (January, 1841) the weather was intensely cold, and to derangement of the health consequent on this state of the atmosphere, but more especially to excitement, an unfavourable change, both in her health and the tumour, was clearly attributable.

Greater caution, however, was observed, and the morbid enlargement, by the end of February, did not exceed the bulk of a very large Seville orange; it having, in November, equalled in size a fœtal cranium at the full period of gestation.

During many subsequent months, iodine, internally and externally; mercury, to the extent of producing slight salivation; quinine, and various stomachics and cordials, were exhibited; and, in April, the tumour had subsided so much, and appeared to be altogether in so quiescent a state, that a seton was inserted over its site, in the left hypogastric region. Some weeks afterwards a larger seton was made, nearly in the same situation, by Dr. Kirby, of Dublin. Sea-bathing was recommended, and when I last saw the lady, in August, 1841, her health was greatly restored; the tumour was so much lessened as to have sunk quite within the pelvic cavity, the pain having almost entirely ceased; and the cervix uteri was much more healthy.

I have narrated this case, because it belongs to a large class, and because it proves the value, where any doubt exists of the precise character of uterine growths, of cautious and long continued treatment. The pain, emaciation, and stationary condition of the tumour, were unfavourable signs: the subsequent diminution of suffering, the gathering of flesh, the improved aspect, appetite, and strength, were, on the contrary, results sufficiently auspicious to encourage a further continuance of remedies. And although in similar examples, the same means may not have been attended with like success, still my conviction of their general efficacy is unchanged. We are not expected to determine what may be the final issue of such growths, nor to deny the possibility of eventual malignant development; nor to promise a cure. But, judging from facts, we may honestly declare, that in many such enlargements so treated, benefit and retardation of the diseased growths, have been the consequences of persevering in prophylactic, and occasionally more active measures.

Case 47.

HARD TUMOUR OF THE UTERUS, CURED BY SPONTANEOUS BREAKING DOWN OF ITS STRUCTURE, AND DISCHARGE OF THE FRAGMENTS THROUGH THE VAGINA.

COMMUNICATED BY SIR JAMES CLARK.

The subject of the uterine tumour was a young woman about 28 years of age. I first saw her a fortnight after marriage. She then complained of abdominal pain, and almost constant nausea. Immediately above the pubis, there could be felt a tumour about the size of a very large orange; and from the vagina there protruded a small portion of membranous substance.

She stated, that she had never been aware of having anything unusual, and had never observed the swelling, until I called her attention to it on my first visit; when, not knowing how short a time she had been married, I suggested to the attendant practitioner that there might be pregnancy. She had been long subject to great losses of blood at each catamenial period; and sexual intercourse had given her extreme pain during the short period of her marriage.

Soon after I first saw her, large fragments of firm, lobulated texture, with thinner membranous portions, and of various forms, were passed, and so far as I recollect, this continued for several weeks.

She gradually recovered, and after some months, all uterine tenderness ceased. She became pregnant, and had a healthy child at the usual period.

Through the kindness of Dr. Walshe, of University College, I have seen these portions of broken down scirrhus growths; which are preserved in the Museum of that establishment.

This is an exceedingly rare termination, and only one case followed by a similar result has fallen under my notice. The patient to whom I allude, a young unmarried woman of 21 years of age, was under my care at Guy's Hospital, and for a very large growth, believed to be uterine, had at intervals for nearly eight months, during which she continued an in-patient, taken iodine. On going out of the Hospital, the tumour was lessening, and she imprudently increased the dose of the tincture, and used, by inunction, a very large quantity of the iodine ointment.

On visiting her, I found she had been nearly poisoned by the drug: she was exceedingly collapsed; the pulse scarcely perceptible, and the surface bedewed with cold perspiration: she seemed thoroughly salivated, and for several days had scarcely ceased to vomit. I was told, that on first reaching home the tumour was so much less, and so much softer, that she determined at once, and on her own responsibility, to adopt the dangerous treatment I have now detailed. Uterine hemorrhage was induced, and, on inspecting the discharge, I found mixed with it masses of various sizes of broken down scirrhus growth. These continued to be discharged for a length of time, and when I took my leave of her, some months afterwards, there was no perceptible enlargement.

These examples resemble those rare instances where spontaneous gangrene of the surrounding parts has led to the separation and expulsion of cancerous growths, and been followed by complete recovery. The testimony of Cline, Home, Steidele, and others, may be adduced, as having observed this fortunate accident, and I well recollect the narration of a case by Mr. Abernethy in his lectures, where a similar result was obtained in cancer of the breast, by the truly hazardous and empirical exhibition of arsenic.

Case 48.

LARGE HARD TUMOUR OF THE UTERUS, WITH AN ACCOUNT OF THE POST-MORTEM APPEARANCES.

Mrs. ——, aged 44, was married at 36 years of age, but has never been pregnant. She enjoyed excellent health, and was remarkably active up to her fortieth year. At that time (1827) she first discovered a tumour in the lower part of the abdomen, an inch or two above the symphysis pubis, which was supposed to be uterine. For two or three years the growth slowly increased, without disturbing her health, or causing any marked inconvenience. In November 1831, I was first requested to visit her; and on examination, I found a tumour in the abdomen, about the bulk of the uterus in the sixth month of gestation. It had mounted nearly to the umbilicus, and appeared to consist of one large, and a second smaller growth; the latter being placed low down,

near the left groin; while the former, remarkably bulky, occupied the middle and right lateral region of the abdomen. Both were hard, slightly moveable, and not painful to the touch. The increase of size had been especially manifest only for a few months; and was particularly attributed to the pressure and excitement of tightly bandaging the abdomen, a practice professionally recommended.

The functions of digestion and nutrition were somewhat impaired; but although there was loss of flesh, there was no decided emaciation. The bowels were constipated; and a purgative was frequently taken, to stimulate the intestinal canal, whose functions were mechanically interrupted. The thighs and the legs, but especially the ankles, were œdematous; the respiration was occasionally embarrassed; and, on exertion, there was palpitation of the heart. The urine was scanty; the pulse 95 to 100; and there was an unhealthy and partially jaundiced hue about the skin. Menstruation (the patient being nearly 44 years of age) was regular and healthy.

By an internal examination, it was ascertained that the cervix uteri was large, and very hard: the anterior lip of the os was knotted, slightly fissured, and painful when touched; the whole internal surface of the vagina was relaxed, and moist from muco-purulent discharge.

The internal and external use of iodine were recommended; four or five drops of the tincture were taken twice or three times daily; and some of the ointment (about as much as a very small nutmeg) was rubbed every night on the os and cervix, as well as over the growths externally. The bandage was entirely laid aside: generous diet, moderate exercise, and the avoidance of mental and sexual excitement and fatigue, were strictly enjoined. Enemata of warm water were to be used occasionally, as auxiliary to mild aperients.

It would be uninstructive and tedious to detail minutely the various symptoms and progress of the malady. I may, however, remark, that after the iodine had been used for six months, with occasional interruptions, the tumours externally had ceased to grow; an opinion in which the patient's friends fully concurred. Exact measurements had been taken prior to the employment of the remedy, and these were decisive on this point. The induration and bulk of the cervix were removed, and the fissures perfectly free from hardness and pain: there was, also, less leucorrhœal secretion; still, the iodine had seriously impaired her health, and she was much debilitated. She removed to the seaside; iron and quinine were largely given; and her diet and alimentary canal were carefully attended to. In six months she returned home with her general health vastly improved.

From the early part of 1832 till the autumn of 1835, the growth was stationary, and free from pain. At this latter period, without any apparent cause, it began again to increase; and distressing pain was produced, not only by the distention of the abdominal parietes, but by the pressure, distention, and traction of internal parts. Gradual yet considerable emaciation occurred; but there did not appear to be any marked inflammatory symptoms till about six or eight weeks prior to her death; nor was menstruation interrupted. From the combined effects of inflammation and distention, her latter sufferings were extreme; for the tumour not only filled much of the abdomen, but so completely occupied the pelvis, that it projected far down into the vagina. The inflammatory pain had been principally felt a little below, under and to the left of the umbilicus; and cupping had afforded some relief. Unctuous applications, by relieving the stretching and extreme distention, anodyne injections, and suppositories, procured some mitigation of her sufferings. The patient expired about mid-day on the 20th Nov. 1836.

The post-mortem examination was made by Dr. Hodgkin, (Mr. Oldham and myself being present), whose full and very accurate report I subjoin.

The body, generally, was emaciated: no œdema, discolouration, or other remarkable appearances, were noticed, except as connected with the size of the tumour. The abdomen, though so greatly enlarged, wanted the uniform distention of dropsy, or even of pregnancy. It was not symmetrical, as to its figure; or uniform, as to its resistance. On the right side, on which it rose to the hypochondriac regi[illegible], it was rather nodulous, and firmly resistant. On the left side, on wh[illegible] it did not rise quite so high, it was neither nodulous, nor so resistant, but felt almost as if the distention was caused by fluid. On turning back the parietes, which were much attenuated, they were found united by feeble and recent adhesions, to the lower part of the tumour; but they were most considerable on the left side. The bond of union, which was remarkable, will be presently described. The omentum, which was much attenuated, had contracted a firm old adhesion to the tumour above, and to the right of the umbilicus. The tumour, at this part, was white or pale, and appeared superficially semi-cartilaginous; but there was a little recently effused blood coagulated, and some small collections of very soft cerebriform matter. The inferior portions of the tumour, especially on the left side, were of various shades of livid

red and brown, very soft, and accompanied with considerable extravasation. The fundus of the uterus was raised out of the pelvis, as high as the superior spinous process of the ileum; and was situated about midway between it and the median line, but rather nearer to the former. The left Fallopian tube, and the ovary, which was large, broad, and flattened, were stretched over the tumour, directly to the left; whilst, on the right, the Fallopian tube and ovary, which were much more elongated than the left, were also stretched over the tumour, in a somewhat ascending direction, to the right. The Fallopian tube must have been eight or ten inches in length: the ovary was elongated, and flattened. The round ligament was likewise stretched over the tumour to the right; but it took first a horizontal, and then a descending direction, until it was widely separated from the Fallopian tube. At the upper and posterior part, the tumour appeared to have contracted few, if any adhesions, old or recent. The tumour, which was situated in the parietes of the uterus, will be described in the sequel. There was no appearance of any peritoneal affection, except recent adhesions about the anterior and lower part of the tumour and the omentum. The alimentary canal appeared to be healthy; but, although there did not seem to be any contraction or induration of the pylorus, the portion of the stomach immediately above it showed some tendency to be dilated into a pouch. The mesentric glands were small, and appeared to be quite healthy. The liver also appeared to be healthy, but small. The spleen was rather large.

The character of the recent adhesions between the tumour and the parietes, the deposit in the omentum, and the structure of the tumour itself, deserve particular description.

On separating the recently-adhering parietes, it was evident that the material interposed between the two surfaces of peritoneum was not ordinary coagulable lymph, but a soft white cerebriform matter, somewhat like stationers' paste, intermixed with spots of extravasated blood of various sizes. On carefully separating further portions of the attached peritoneal surfaces, it became evident that the soft cerebriform matter was not irregularly effused upon the inflamed surface of the peritoneum, but that it was collected into circumscribed depositions of very various sizes, but having almost universally a rounded but very compressed form; the flatness evidently depending upon compression between the two opposed surfaces of serous membrane, and a circumscribed rounded figure, which seemed to depend on the cerebriform matter, not blending with the general secretion of the peritoneum, but rather remaining as a drop of oil would do upon a wetted surface. It likewise appeared, that

on the surface there was an extremely tender pellicle; which rendered it possible to move the soft deposits without breaking them, although their form might be changed. A very slight force, however, produced rupture; when the contained material escaped, as a grumous amorphous mass. They might, in fact, be compared to little yolks of egg separated from the white, except that their form was more flattened, and the inclosing pellicle comparatively more tender. These little collections of cerebriform matter possessed different degrees of translucence. Some presented a uniform milkiness; others were spotted with points of extravasated blood; and in some the spot of extravasated blood formed a defined rounded body, which appeared just as distinct from the white cerebriform matter as this did from the surrounding texture or secretion. These appearances were most beautifully seen on the omentum, which was thin and delicate, and, with the exception of these appearances, and the old adhesions before mentioned, retained a perfectly healthy character. On the omentum, some of these little circumscribed deposits of cerebriform matter might be seen scarcely so large as pins' heads, whilst others were nearly as large as a shilling. The smaller deposits appeared to take their origin very near, or in the course of the minute blood-vessels. A little below, under, and to the left of the umbilicus, where the recent inflammation had been most intense, the parietes of the cyst were so softened, that, in some parts, the defined limits between the substance of the tumour and the productions of the serous surface were lost; the fingers passing into a mass of the consistence of softened brain, and intermixed with extravasated blood. In removing the tumour from the body, some portions of this softened part of it were detached, partly by laceration, and partly by the knife. The tumour weighed about twenty-five pounds. It was evidently lodged in the substance of the uterus; but its fundus and its angles, and the commencement of the Fallopian tubes, and the attachment of the round ligaments, though carried out of their natural situation to that already mentioned, did not appear to have undergone any distention or derangement of their relative position, as respects each other. The whole fundus was a little enlarged. A section was made through the tumour, so as to divide the fundus into two lateral portions: it was carried towards the os, but so as to leave the whole, or the greater part of the os, with the left hand portion. This, which appeared to be the best section for showing the state of the uterus, left more than three-quarters of the entire bulk on the right side. As it passed through the hardest, and also the softest parts of the mass, it afforded views of the varieties of texture which it presented. It was evident that this extraordinary en-

largement was occasioned by the formation of tubercles, having the cystiform arrangement developed in the substance of the parietes of the uterus. The greater part of it consisted of one very large, and several smaller tubercles, of scirrhous hardness, and of a nearly dead milk-white colour, developed in the posterior and right lateral parts of the parietes. Within this mass of hard tubercles, but almost in contact with the internal surface of the uterus, was a mass, which appeared to be nearly spherical, about four inches in diameter, of a deep brick-red, but not uniform colour. It was of fleshy softness, and distinctly possessed the cystiform arrangement. The subordinate portions were more loosely connected among themselves than in other parts of the solid mass. The state of distention of the cavity of the uterus may be inferred from the situation of the fundus, which was seven or eight inches from the os. Its internal surface was extremely uneven and irregular, from the projection of numerous nodulous, but breaking-down fungoid tumours, of about the size of a chesnut or walnut. They were bathed with an offensive dark sanious fluid. Though the anterior parietes were also the seat of adventitious productions of a similar structure, their thickness was scarcely, in any part, increased to more than about two inches. There was a great variety in the consistence of the adventitious growths in this part. One well-defined tubercle, of the size of a cob-nut, was of a dead milk-white colour, and of scirrhous hardness: more had the softness of cerebriform matter, and were variously coloured by imperfect organization and extravasation; whilst some possessed the softness and transparency of gum or gelatinous cancer. Some of these, notwithstanding their great tenderness, distinctly exhibited the form of a reflected membrane, with extremely minute and delicate vascularity. The inflammation at the anterior and posterior part of the mass appeared to be connected with the breaking down of the adventitious structure, including those in the anterior parietes, those projecting in the interior of the uterus, and the large sanguineous mass occupying a part of the right side.

Here, by the use of the iodine, four years, at least, were added to the life of the individual, with an almost entire exemption from the sufferings previously attendant on the malady: and, had it not been for the immense bulk and weight of the tumour (25 lbs.), it is probable that a still further period would have elapsed, without the occurrence of that *malignant cachexia* by which she was eventually destroyed. In the growth itself,

the morbid changes were such as I have already described. There were inflammation, softening, and unhealthy suppuration. Nor can it excite surprise, that life should have been destroyed by such a complication of ills. I would, however, urge the importance of deliberation before the employment of the remedy. In cases, where, after remaining almost, or entirely, stationary for months or years, the tumour has begun suddenly to grow, and the patient's health is not materially impaired, the external and internal use of the iodine may be strongly recommended; but in those unfortunate instances, where the growth has been long neglected, and where the constitutional powers are beginning to fail before the remedy has been suggested, its employment will be injudicious, the strength of the patient will be further impaired, and it is not unlikely that the fatal result may be accelerated. These cautionary observations are limited to the hard tumours of the walls of the uterus: they do not refer to similar deposits in the os and cervix.

Case 49.

SUBMUCOUS TUMOUR OF THE UTERUS, TERMINATING FATALLY BY HEMORRHAGE.

Several years ago I attended Mrs. ——, for profuse menstruation; which was invariably followed, after a few days, by discharges of blood —a fact satisfactorily proved by the coagulation of the fluid.

In 1832, when Mrs. —— first came under my care, she was 39 years of age, and had borne five children, four of whom were living and healthy. The usual treatment was adopted—the recumbent posture, the local application of cold, refrigerants, opium and the acetate of lead, and a mild yet nutritious diet. The secale cornutum was occasionally used; but disadvantageously, as the uterine pain and the hemorrhage were always increased by it. Several times the bleeding was so considerable, as to require plugging of the vagina.

In 1834, 5, and 6, she was not often under my care, the menstruation and the hemorrhage being rarely excessive. In January 1837, I examined the womb internally, and distinctly ascertained that the os was open, and that a tumour existed in the uterine cavity. A year and a half before, I had found the os healthy; and although, by balanc-

ing the uterus, I was sensible of its increase in bulk, I could not then make out any distinct growth. It was now sufficiently evident how large the organ had become, as I could distinctly feel it above the pelvic brim; and on partially introducing my hand into the vagina, I could, by my forefinger, touch the tumour.

I remarked that the growth was smooth and broad on its surface, not very hard; that it was painful on touch: and that it was not pediculated. This examination was not repeated, as she complained much of the pain and uneasiness it produced, and it was also followed by alarming hemorrhage.

The remedies already mentioned were again resorted to; and, at the suggestion of another physician, the secale was repeated; but it produced severe spasmodic pain, and a return of the bleeding.

During the summer of 1837, I was informed she had frequent recurrence of hemorrhage; and there was always more or less uterine pain and uneasiness. On one occasion, I was particularly struck with her altered appearance; the pallor of surface, and general anæmia, being extreme.

Late in September 1837, I was hastily summoned, and found her nearly dead. Brandy, and plugging the vagina, stayed the fatal result for two days; but at the expiration of that period, after vomiting for some hours every thing which was swallowed, she sunk.

SECTIO CADAVERIS,

By Mr. Henry Oldham, *twenty-five hours after death.*

The body was but little wasted, the mammæ alone appearing shrunk. The abdomen only was permitted to be inspected. A layer of fat, about half an inch in thickness, covered the abdominal muscles, which appeared paler than natural. The liver was flabby and pale. The gall-bladder contained three gall-stones, with some inspissated bile; and its tunics were thickened.

The stomach, intestines, and liver were pale and exsanguine, but otherwise healthy.

The uterus was discovered nearly filling the pelvic cavity, projecting about an inch above the brim, and enlarged to about its size under a three-months' gestation. Its surface was not uneven; and the peritoneum covering it, retained its natural appearance. The uterus, with its appendages, were removed.

On making a section of the anterior wall of the uterus to expose its cavity, the paries on the right side appeared considerably hypertrophied,

gradually thinning as it approached the fundus. The progress of the section was obstructed, about the entrance of the right Fallopian tube, by an oval body about the size of an orange, developed in the substance of the uterus; carrying the mucous membrane before it, filling and distending the cavity of the uterus, and closely embraced by the uterine parietes. On the left side, another tumour, about the same size, was seen; which projected laterally outwards, increasing the bulk of the uterus in that direction. It also served to distend the cavity of the uterus, projecting inwards, so as nearly to touch the apex of the former tumour;—the mucous lining, however, passing up between them, leaving a passage, as it seemed, to the left Fallopian tube.

The cavity of the uterus, by these tumours, was made very irregular and extensive; and the mucous lining, being reflected from one tumour to the other, covered a large space. This last was vascular throughout; but over the surface of the tumour growing from the fundus, it appeared particularly red, and a web of delicate vessels was detached from this part. A recently-formed coagulum, too, was seen at its apex.

The os uteri was dilated and smooth. The cervix was enlarged; its structure more than usually apparent; and its crypts distended with thick mucus.

The ovaries appeared preternaturally full. In the right were found two cysts, large enough to enclose a common nut, filled with pellucid fluid. The left contained a cyst about the same size.

The larger and more vascular tumour was laid open, and examined. Before it was divided, it felt elastic, appearing about the consistence of steatoma. When inspected, it showed distinctly the cystiform character; one cyst being particularly observable. This contained a yellow substance, of the colour and consistence of fat, which was but feebly adherent to the containing cyst.

Case 50.

SUBMUCOUS TUMOUR OF THE UTERUS, TERMINATING FATALLY BY HEMORRHAGE.

March 25, 1830.—Mrs. H., aged 38, is the mother of five children; the last born four years since. She lives in a confined, unhealthy court, in Spitalfields: her aspect is cachectic; and emaciation has been going on for some time. She states, that for the last two years

she has menstruated profusely, and has had large discharges in the intervals; these latter always coagulating.

She was ordered to use the zinc and alum injection; to take infusion of roses, with acid and nitre; to continue in the recumbent posture; and to abstain from sexual intercourse.

June 25.—Has still profuse bleedings occasionally: employs the remedies carefully—digitalis, nitre, superacetate of lead, and occasional tonics. The latter, and the astringent injections, increase the pain and hemorrhage.

The recumbent posture, cold, mild diet, and sexual abstinence, diminish the discharge.

July 1.—Bleeding has been excessive. On examining, I find the lower anterior part of the uterus greatly enlarged; the os widely open, easily admitting the forefinger: and a tumour, round, hard, and painful to the touch, may be distinctly perceived. The urine and fæces are passed with difficulty. As pain and hemorrhage were produced by this investigation, it was not repeated.

Twice, between this and July 25, the vagina was plugged. On this latter day, after large bleeding, she died.

The body generally, and especially the abdomen, was emaciated; and a large and hard uterus could be distinctly felt above the pubes.

The walls of this organ being divided, a hard, scirrhous tumour, about the bulk of a very large orange, was found imbedded in the walls, and encroaching on the cavity. There was a thickened and highly vascular covering of the mucous membrane over the growth internally; nor was there any of the muscular tissue between the tumour and its mucous investment.

There were in other parts several smaller scirrhous growths; and the viscus was nearly as large as at the fifth month.

Case 51.

For this interesting case I am indebted to Dr. Marshall Hall. It furnishes another example of pregnancy complicated with hard or scirrhous tumours of the uterus, occurring, too, at rather a late period of life. It is also worthy of remark, that, after parturition, the tumours inflamed, and one of them suppurated, thus leading to a fatal issue. These facts I have especially noticed in a former part of this work. There can be little, if

any doubt, that the hemorrhage in this instance was dependent on the diseased structures. Dr. Hall "is decidedly of opinion, from what he has observed, that tumours thus imbedded in the structure of the uterus excite hemorrhage, and especially in the subjoined case."

Mrs. T. C——, aged 43 or 44, after having been subject to profuse menorrhagia, for twelve years of unfruitful marriage, at length became pregnant.

During the course of her pregnancy, tumours were distinctly felt in several parts of the parietes of the distended uterus; and one was so superficial, that a medical gentleman mistook it for hernia.

Parturition was pretty well accomplished; but the tumours inflamed, puerperal peritonitis occurred, and the patient died.

On a post-mortem examination, several tumours were found inflamed, and one of them suppurated.—The uterus was only partially contracted.

Case 52.

The following particulars were furnished by Mr. Lever, with whom I saw the patient during life. An inspection after death would, I doubt not, have corroborated the opinion we expressed, that the hemorrhage was dependent on the uterine tumour.

Mrs. A. D——, aged 54, residing near Finsbury Market, was married at 23, and is the mother of only one child; never having had a miscarriage. Three years since, her menstrual periods became prolonged; being always attended by large discharges of coagula, and constant severe pain in the uterine region. For two years, these symptoms were entirely disregarded; but a twelvemonth prior to this time (1834) she employed astringent injections, and astringent medicines were given. For six months she had but slight menorrhagic losses, when alarming uterine hemorrhage again occurred. Under the advice of another practitioner, who told her friends that she had malignant tumour of the uterus, she employed astringents and tonics, deriving some relief. The secale cornatum was used; but greater pain and more excessive bleeding invariably succeeded its exhibition. Mr. Lever saw her soon afterwards, and quickly recognised the results of excessive hemorrhage. On examining internally, the os was soft and patulous:

anteriorly, the neck was shortened; and through it could be felt something large and hard, occupying the uterine cavity. That it did not grow from the cervix was evident, as this latter part could be freely moved upon the tumour.—Dr. Ashwell also examined and confirmed the above statement.

In a few more weeks, a large bleeding occurred, from which she never rallied. (No examination could be obtained.)

Case 53.

In *May*, 1837, I visited Mrs. ——, aged 41; a patient of Mr. Dodd in Wilderness Row, She had never borne children, although she had been long married. She had lost much blood from the uterus; not only at the catamenial periods, but at other times; and she was now confined entirely to bed. Her face, indeed her whole surface, was pallid, and her strength was seriously impaired. She suffered much uterine pain, and frequently took opium to procure sleep.

On examining, I found the os patulous, and the cervix enlarged and œdematous. I could distinctly feel, and touch, a large growth occupying the lower part of the uterine cavity. At first, I thought it might be polypus; but on carrying my hand partially into the vagina, my finger passed over a large tumour, situated as above, with a broad, smooth surface, and evidently not pediculated. Pressure produced pain; and a probe gently pushed against the growth, made her cry out. A good deal of blood, which coagulated firmly, was lost after this investigation. Astringent injections into the vagina and rectum, the recumbent posture, abstinence from sexual intercourse, and a mild but nutritious diet, with the vegetable tonics, were enjoined. All idea of any operation was abandoned.

It need not be observed in how many particulars this disease differed from uterine polypus.

Case 54.

SUBMUCOUS TUMOUR OF THE UTERUS; POST-MORTEM APPEARANCES.

In *July*, 1835, I was consulted by Miss ———, æt. 48, on account of repeated uterine bleedings. Believing that at her age such occur-

rences were not uncommon, she had hitherto entirely disregarded them; and even now would not have sought any opinion, had it not been for a tumour she had lately discovered in the right hypogastric region. Her aspect was cachectic, and the dark leaden hue and deep lines of her countenance, plainly indicated that there was serious disease. The breathing was embarrassed; the heart palpitated, and the pulse became rapid and fluttering on the slightest effort. The prolabia and conjunctivæ were bloodless. The abdomen was distended by flatus, and the legs and ankles were swollen and œdematous. She had scarcely any appetite; her digestive power was nearly destroyed; and the urine was scanty, high-coloured, and albuminous.

Such was her state on my first visit; but as I was allowed to examine only very imperfectly, the condition of the tumour and the uterus were not ascertained.

Some days afterwards an alarming hemorrhage occurred; and on its cessation, I found a tumour in the fundus of the uterus, exceedingly hard, and apparently of the size of a large orange. The os and cervix were quite healthy, although the former was unusually patulous. Menstruation had not ceased, but it recurred at irregular intervals.

It would be tedious and uninstructive to detail the various remedies employed during the four years prior to her death; but I may say, as there was scarcely ever any pain in the tumour, and as her circumstances permitted every indulgence, her life was not an unhappy one. Frequently, however, the bleedings were so profuse as to threaten a fatal result; and on several occasions, a long time elapsed after they had ceased before she could be lifted from the bed to the sofa.

Alum in various doses, the alum bath, and a seton across the hypogastric region, appeared for a time to do much good. Still it was apparent, especially during the last six months of her life, that nothing really beneficial could be done; and after several minor hemorrhages, she sunk on the 30th of May 1839, never having rallied from a large bleeding of the day before.

The body was examined by Mr. Henry Oldham of Guy's Hospital, whose report I annex.

The abdomen only was inspected.

The incision was made through a layer of fat, about half an inch thick; and the abdominal muscles, which were well developed, appeared paler and softer than usual. There was no appreciable morbid change

in any of the viscera, excepting the uterus and the ovaries, only they were universally pale, and unctuous to the touch.

The uterus was distinguished, occupying a large space in the pelvic cavity, and its upper part surmounted the brim. It was removed, with its appendages, for more careful examination. It presented externally an uneven globular appearance, in size like a very large lemon. The right lateral portion was much larger than the corresponding left part, so that when a section was made in the proper mesian line, two-thirds of the entire growth were found on the right side. On dividing the uterus to expose its cavity, the greater part of the tumour was found developed on the anterior wall, so that about two and a half inches of hard, solid material was cut through, before the cavity could be exposed. With the exception of one isolated portion, about the size of a nutmeg, which was a softer tubercle within a distinct cyst, the remainder of the tumour consisted of a hardened structure of well marked linear arrangement, through the substance of which several vessels of the size of a crow-quill were seen, having open mouths on their truncated extremities. It was much regretted that time would not permit a more careful dissection of these vessels, and that we were precluded from injecting the tumour from the spermatic arteries. In other respects than this vascular character, the tumour resembled the ordinary scirrhus or hard tumour of the walls of the uterus. The *cavity had not been encroached upon by the surrounding growth.* The mucous membrane was more rough than usual; but in general healthy, and the cavity was filled with a coagulum. The left Fallopian tube was pervious; the opening to the right, however, from the angle of the uterus, was obliterated by the intervening solid mass.

The ovaries were much corrugated, but of good size, their proper tunics being thicker than usual. The left had a superficial cyst, sufficiently large to enclose a common nut, filled with a clear transparent serum, and its lining membrane was beautifully injected with minute blood-vessels.

The peritoneal covering of the uterus and appendages was shining and healthy.

CHAPTER III.

ON PREMATURE LABOUR IN PREGNANCY, COMPLICATED WITH ORGANIC DISEASES.

THERE is, perhaps, no part of the work to which this important subject could be appended with more propriety, than to the section comprising the affections of the uterine parietes. I shall, therefore, place before my readers the history and treatment of pregnancy and parturition, complicated with such uterine and pelvic tumours, and such organic affections of the vagina and external genitals, as justify and encourage the induction of premature labour, proposed by myself, in a paper published in the Guy's Hospital Reports several years since. I have previously observed, that to some, who have not noticed the course and results of these diseases, it may appear singular, that conception should occur at all: but it must be remembered, that they interfere only slightly with the general health, and that menstruation is almost as regularly performed, as when the uterus is not structurally diseased. It is also remarkable, that pregnancy not unfrequently takes place, when these tumours or other malignant diseases have existed for years, and when that period has arrived, at which the conceptive susceptibility might naturally be supposed to have nearly ceased. It is almost superfluous to remark, that patients becoming pregnant in such a condition of the viscus, are exposed to the most imminent danger. The tumours soften during the latter months; the increased supply of blood leads

to inflammation; unhealthy suppuration is established in them; and death occurs soon after parturition. This, in few words, is their pathological history: and, if it be duly considered, the profession will probably conclude, that a better and more certain plan of treatment will be, the induction of premature labour, before that period when the tumours shall be subjected to pressure and contusion, from the firm, large, and unyielding gravid uterus.

To establish its propriety, it is necessary to prove two or three positions; amongst which, I may especially mention the following:—

1st. That when death occurs, after a labour so complicated, the result is only slightly, if at all, referrible to the uterus, which rarely sustains any serious mischief; but is mainly produced by inflammation, softening, and unhealthy suppuration in the growth itself;—these pathological changes leading, in some instances, to rapid sinking; while in others, the powers of the system having been less impaired, death ensues in a few days, from the constitutional collapse, induced by the protraction and difficulty of parturition, and by the contusion and injury done to the tumour and other soft parts. And, 2dly, That premature parturition, artificially induced, rarely occasions constitutional mischief, is easily accomplished, and affords the best, and, in many instances, the only chance of a safe result to the mother.

1. It must be allowed, that pregnancy complicated with tumours of the uterus itself, of the ovary, or with those of a purely adventitious kind, growing either from the abdominal or pelvic cavities, gives rise, in labour, to difficulties of the worst kind. In parturition, where the danger is produced by the narrowness or deformity of the pelvic brim, cavity, or outlet, the extent of the obstacle can generally be accurately ascertained. If the abbreviation be within certain limits, the forceps is relied on: if, on the contrary, the encroachment on the pelvic spaces be still greater, the perforator is resorted to. In either alternative, if the assistance has not been too long delayed, the probability is, that a fortunate termination will be secured. It is not so, however, where tumours obstruct the birth of the child: here the

extent of the difficulty can rarely be correctly appreciated; and even where the head may have ultimately overcome the obstacle, and the uterus have escaped uninjured, the same assurance cannot be entertained of the morbid growth. The safety of a patient, having such a tumour, might have been only barely secured by a freedom from even the commonest excitement, whereby its natural supply of blood would have been, perhaps, diminished; but now, the growth has not only shared in the sympathetic excitement of pregnancy, but has also sustained severe pressure and contusion from the unyielding gravid uterus, and has participated for months in an increased supply of blood. Thus is the condition of the tumour rendered worse; and if such changes had occurred, independently of gestation, it would excite no surprise to find the system painfully sympathizing; but so far from being surprised, we must anticipate after the protracted and exhausting struggle of labour, that an unfavourable result will frequently occur.

Professional attention has not hitherto been sufficiently directed to the agency of the tumour itself, in the production of the fatal event. Of course, it has not been overlooked, that it is the cause of the difficulty in parturition; but it seems to have been almost forgotten, how well women gradually recover from protracted, difficult, and instrumental labours, where there is no tumour, or adventitious growth of large size. A due estimation of this fact would, I believe, ere this, have led to the practice I propose: a careful reader of the narratives of labours thus complicated, and of the rapid dissolution following them, will discern, to a certain extent, a parallel as to the fatal sinking, between them and labours where the use of instruments has been too long deferred. I have several times witnessed the loss of life in a few hours after delivery by the perforator, where sixty or seventy hours had been improperly allowed to elapse before its employment; the impression on the system being very similar in both instances.

In all the fatal instances of pregnancy complicated with tumour which I have seen, and where I have had the opportunity of examining the parts after death, the uterus itself has been healthy, or very nearly so; and, in the majority of those re-

corded, this viscus is reported to have been either in a natural state, or free from disease. Dr. Merriman's Papers (First Part of Vol. X. of Medico-Chirurgical Transactions) also corroborate this statement; and in an able account of a post-mortem inspection of a very interesting complication of this kind, by Mr. Hewlett, in the Seventeenth Volume of the same work, it is said "to the front, and resting on the tumour, was the uterus, free from disease." These facts will probably satisfactorily prove the first part of my position; viz. that when death occurs in labours thus complicated, the result is only slightly, if at all referrible to lesion of the uterus. The symptoms during life, and the inspections after death, will lead to the conclusion, expressed in the former part of these observations — that the unfavourable termination is mainly referrible to inflammation, softening, and unhealthy suppuration in the growths themselves.

In several of the appended Cases, this will be clearly evident: nor is it possible to peruse their histories, and examine the preparations, without arriving at this opinion. The Case occurring in Miriam's Ward is, in this respect, peculiarly instructive. The patient, after a good labour, not followed by any distressing uterine symptoms, or by any approach to collapse, suffered most severely from acute pain and enlargement of the tumour, accompanied by an anxiety of countenance, and a hardness and rapidity of pulse, indicative of alarming mischief, and ushering in a train of constitutional symptoms, almost if not entirely referrible to the morbid growth; and from which she was recovered with great risk and difficulty.

The cases already alluded to in the Medico-Chirurgical Transactions confirm these views. Nor is it difficult to believe, if these remarks as to the changes induced by the pressure of the uterus and the effects of labour on growths characterized only by their bulk and induration, be true, that, in malignant tumours, whether of the uterus, ovary, or other parts, the danger must be imminent indeed, fully and satisfactorily accounting for the rapid extinction of life. If, as in Case 58, where the tumour was only pressed and contused between the uterus and the abdominal parietes and diaphragm,

the alarming symptoms, endangering the patient's life, were entirely attributable to the tumour; we may, without any hesitation, acquiesce in the following opinion of Dr. Merriman, viz. "That, upon the whole, the evidence we at present possess is most in favour of opening the tumours; for, of the nine women out of eighteen, who recovered more or less perfectly, five appear to owe their safety to this operation; and of the three children born alive, or supposed to be so, two were preserved by the same means." These inferences confirm the views I have already expressed—that where the tumours can be preserved from contusion and its consequences, a favourable result may be hoped for.

2. I shall now proceed "*to show, that premature parturition, artificially induced, rarely occasions constitutional mischief; is easily accomplished; and affords the best, and certainly in many instances, the only chance of a safe result to the mother.*"

It may not, perhaps, be totally out of place, to narrate the cases which first prompted me to think of and recommend this practice.

Some years ago, I was requested to see a poor woman advanced to the seventh month of pregnancy, who was suffering from accidental hemorrhage. Her former labours, and especially the last, had been difficult and dangerous, owing to what was supposed to be a fleshy tumour situated between the rectum and vagina. On examination, I found a firm, smooth, and unfluctuating growth, about the size of a very large orange, occupying the hollow of the sacrum, and filling up the vagina. With difficulty I reached the os, and, in my anxiety to ascertain the presentation, my finger penetrated further and more forcibly than it ought to have done, into the cervix. I waited some hours; but as the pains and the discharge had entirely ceased, I returned home, somewhat embarrassed as to the best mode of procedure. In former pregnancies the growth had been pushed above the brim; but at those periods it was neither so large nor so immoveable as at the present time. I determined, if the labour proceeded, that I would again attempt this practice. A day elapsed without my having been sent for: and I was greatly astonished, at the next visit, to hear, that, twenty-

four hours after the examination, the pains had returned, the membranes had quickly ruptured, and a dead child, about six months and a half, or seven months old, had been easily expelled: thus, unintentionally, I had separated the membranes sufficiently to induce premature labour, the best remedy for the complication. The recovery was good. Soon afterwards this patient removed from the neighbourhood of the Tower, and I entirely lost sight of her.

Late in the year 1834, in consultation with Mr. Callaway and Mr. Gowar, I saw a patient whose history resembles the case already stated. Mrs. ——— is nearly forty years of age, and, in her last confinement, her safety was endangered by a tumour filling up a large portion of the vagina, which obstructed the descent of the head. After some ineffectual attempts to dislodge it by the medical attendant, Mr. Gowar was called in; and placing the patient on her hands and knees (thus inverting the pelvis), he succeeded, after considerable effort, in getting the tumour above the brim. The birth was now easily accomplished, and the recovery was natural. The growth had increased in the interval between the last and the present pregnancy; and as she was approaching the sixth month, it was necessary to determine what was to be done. On examination, I was struck with the size and firm attachment of the tumour; which so filled up the vagina, as to make it a matter of difficulty to reach the os uteri: this, after some little time, I accomplished; and satisfied myself that the neck was shortened, and that she was probably correct in her calculation. This examination was repeated by the gentlemen already mentioned, and we recommended, that premature labour should be induced a little before the seventh month. On inquiring about this lady after a few days, I was informed, that we had, although unintentionally, separated the membranes sufficiently to induce expulsive action of the uterus, and that a six months' child had been expelled. The mother recovered well.

A perusal of obstetric communications on the subject will remove all reasonable doubt as to the general safety of this method of procedure. I have induced premature labour in

a number of cases; and rarely has there been sufficient excitement of system to cause the slightest anxiety. I cannot therefore concur in the opinion of the late Dr. Gooch, when he says, "that foreigners are exceedingly afraid of this operation: and certain it is, that great disturbance of the nervous system is produced by it; severe rigors, rapid pulse, and delirium, are the occasional consequences." It is due, however, to Dr. Gooch, whose name cannot be mentioned without admiration, to say, that he regarded these symptoms as proceeding from nervous irritation, and scarcely continuing long enough to produce any serious results; sometimes ceasing so soon as the pains commenced; and, if not then, after the uterus had been emptied. It may also be remarked, that, in the numerous instances recorded, there is scarcely an allusion to any risk or injury to the mother. If, indeed, we reflect for a moment on the formidable dangers avoided by the operation, where there is narrowing and deformity of the pelvis, it will readily be allowed, that the ills of "nervous irritation" may well be endured, to prevent the difficult, protracted, and dangerous struggle which cannot fail to attend parturition under such unfavourable conditions.

The history of this practice is curious: it was first successfully adopted by Dr. Macaulay, in 1756; the idea having probably been suggested by his observing, that women with narrow pelves, if labour occurred much before the full period, expelled the child with comparative facility. Like other innovations on established customs, it received, at first, the advantage of a decided and almost superstitious opposition. Denman relates, that in the same year in which it was first performed, an assembly was convened of the obstetric practitioners of London, and a discussion was gravely prosecuted, as to its morality, safety, and utility. Happily, all these questions are now set at rest, by the decided advantages accruing from its performance. It may, then, be assumed, that whether labour is induced, either by at once rupturing the membranes, or by separating them from the inner surface of the cervix, safety to the mother will be the general result. Further than this, Dr. Francis Ramsbotham has, in many instances, success-

fully induced the same result by the administration of the ergot: and even here, although a drug of controverted powers (in which, however, I place great confidence) was employed, the mother was equally free from all injurious consequences. Dr. Ramsbotham says: "All these patients (in whom premature labour has been thus induced) recovered, as well as after the most common labour at the full period; and in none of the cases was there the least indication of a disposition in the uterus to assume its contractile function previously to the exhibition of the medicine. I could recite many similar instances, equally demonstrative of the power of the drug, and proving its harmlessness, at least so far as the mother is concerned."

I need hardly allude to the statistics of the operation; but it is impossible to notice the circumstantial data connected with this great obstetric improvement, without congratulating society on the augmented safety of the mother, and on the increased number of infants preserved by its intervention. Dr. Hamilton, of Edinburgh, affirms, that out of twenty-eight cases of premature labour, thus induced, he has saved twenty-four children; and in one patient he performed the operation in ten different pregnancies. It ought, however, to be remarked, that this is greatly beyond the average amount of success.

Fortunately, pregnancy complicated with tumour, is not of such common occurrence as pregnancy with a narrow and deformed pelvis; and, consequently, the necessity for the intervention of art has not been so urgently pressed upon the attention of professional men. Still, if the contingency is more rare, when it does arise it is infinitely more dangerous, at least if the tumour be large, and so situated as to obstruct parturition. Seeing, then, how admirably the dangers of the former class of difficult labours are evaded by premature parturition, I may be allowed to express surprise that this operation has not been resorted to in these more formidable complications. I contend, therefore, that this practice is peculiarly applicable to these cases, almost independently of any reference to the life of the child. In support of this opinion, it may be observed, that there is a vast difference between cases of pelvic narrowing

and deformity, where there is nothing to preclude the safety and desirability of pregnancy but the faulty conformation, and cases of morbid growths or diseased enlargements of organs, which render it urgently important, that impregnation should not occur; or, if it have occurred, that it should not so far advance, as to call into activity the dormant energy of the tumour. The life of a fœtus is, under such circumstances, of comparatively little moment.

This chapter would, however, be incomplete, without an attempt to explain some of the doubtful circumstances attaching to these maladies. I am aware, that, not unfrequently, the full time of pregnancy will have been completed before the attention of the practitioner is directed to the existence of a large abdominal or recto-vaginal growth: here the procedure now recommended will be clearly inapplicable, and the judgment and the resources of the accoucheur will soon be in painful exercise. He will then have to proceed timidly and uncertainly; ever feeling, in the highest degree, doubtful of success. The size of the tumour will also induce hesitation; and I conceive that the attendant will be justified in leaving the work to nature, where the growth is small or only of moderate dimensions, and where it is not so placed, as to prevent the advance of the child. Various considerations may aid the decision. If the tumour be moveable; if it be so situated, that the enlarging and hard uterus has pushed it out of the way, and does not make painful pressure upon it; if it be the first labour so complicated; or if it be the second or third, the growth not having increased during the intervals of the successive pregnancies; then "sequere naturam" should be the guiding precept. If, however, the opposites of these circumstances present themselves, it would be unwise to run the risk which a labour to be naturally prosecuted at the full time could not fail to induce. Let us take, as an illustration, the 58th Case, where the patient, having a large ovarian growth, passed tolerably well through the labour; but was subsequently placed in imminent danger, by inflammation of the tumour, the constitution being implicated to an alarming degree. Here, if pregnancy again occurred (even if the tumour had not increased, but certainly if it had even only slightly

grown), I should strongly insist on premature labour being induced at the seventh month; thus avoiding the changes of a mischievous kind likely to be produced in the tumour during the last months of gestation, and certainly evading those greater dangers so attendant upon parturition.

Without presumption, I may be allowed to express an opinion that if this practice had been adopted in the interesting cases related by Dr. Merriman, a different result might probably have been attained; although, even in hinting this, for the sake of illustrating my arguments, I am desirous not to be thought to express any other than the greatest confidence in the talents and experience of this distinguished practitioner.* A careful perusal of the case narrated by Mr. Hewlett, will additionally strengthen these views: here, nearly two months elapsed between the first parturient indications and actual labour; and during the whole of this period the patient was painfully distressed by sufferings arising from pressure, exciting inefficient uterine action, and obstructing the veins and lymphatics in their important functions. These, if I am not mistaken, were precisely the symptoms to have been relieved by diminution of uterine bulk: the inspection after death rendering it quite clear, that the abdominal and pelvic cavities were incapable of affording lodgment to three such bodies as the pregnant uterus and the two enlarged ovaries. Let it not be supposed, I am insinuating that premature labour, induced when Mr. Hewlett was first called, would have protracted the life of this lady for any lengthened period, if at all: the malignant disease of both ovaries forbids such an opinion. Still, in the absence of positive knowledge of the malignancy of tumours (a point difficultly determined when they are concealed in cavities), our best treatment consists in preserving such growths from excitement, pressure, and contusion.

These remarks are quite as pertinent to my own cases, and peculiarly so to the Case No. 57. In this instance, the growths

* It is evident that premature labour could not have been resorted to in these instances, as Dr. Merriman was not called to any of them till labour had actually commenced.

had existed, probably for years, before the occurrence of the unexpected and unwelcome pregnancy; and as there was no pain about the uterus till the sixth month, it may be assumed, that if the development of its cervical portion had been prevented by a premature evacuation of the uterine contents, the softening, suppuration, and almost gangrenous condition of the growths might have been arrested. It is possible, that the development of the uterine fibres may be interrupted, and their action almost paralysed, when large tumours are situated directly within the parietes of the organ, and abortion, or premature labour, or lingering and impracticable parturition, may be the result:* nor is it difficult to understand, that fatal hemorrhage might be the result of the attachment of the placenta near, or partially over, one of these growths.

Another point of importance is, the time when premature labour should be brought on. A variety of circumstances will influence the decision of this question. If the practitioner enjoys the advantage of an early introduction to his patient; if he possesses tact enough nicely to examine the bulk and attachments of the tumour; and if he has accurately noted the first attacks of pain in it, and the constitutional impression produced by them; he will not hesitate much as to the precise period when to adopt this measure. I should not delay, if there were constant pain in or near the growth; if the respiration were embarrassed; and if, as a consequence of these conditions, the pulse were quick and irritable, the extremities œdematous, and the functions of the kidney and skin were partially or

* A case related by Professor Osiander, of Gottingen, and quoted by Dr. Forbes in the October number of the British and Foreign Medical Review, corroborates this opinion. The patient, 45 years old, scrofulous and unhealthy, had already miscarried twice, but had never given birth to a living child. The labour, after which she died in three days, was not interrupted and impeded by the pressure of the tumours, nor was the pelvic cavity contracted by their presence; but the action of the uterus was so paralysed, and the expansion of its fibres so entirely prevented, that this celebrated practitioner was compelled to perforate. On a post-mortem examination, the whole right side of the abdomen was found occupied by an enormously large uterus, beset with hard swellings, like eggs, of a somewhat oval form, and filled with a yellow caseiform matter, resembling pus, the liquid parts of which had been absorbed. These large tubercles were nine or ten in number.

greatly interrupted. When such an amount of evil exists, or rather before the entire series of these symptoms is complete, the moment has arrived to empty the uterus: and I venture this opinion with the more confidence, conceiving that pregnancy will rarely give rise to this amount of mischief till the sixth or perhaps nearly the seventh month of gestation; when, if turning shall be required, it may be accomplished with only the usual difficulties and hazards. One of the Cases (No. 57) will demonstrate the almost insuperable difficulty of determining whether pregnancy really exists or not: and I need scarcely say, that this knowledge is indispensable, before the decision, as to the employment of this remedy, can be arrived at. Such extreme obscurity is rare: nor will it invalidate the general worth of the measure.

Thus, whatever may be said to the contrary, pregnancy is not unfrequently complicated with malignant tumours of the uterus itself, of the ovary, and with those of a purely adventitious character; growing either from the abdominal or pelvic cavities, and giving rise, in labour, to difficulties of the worst kind.

It can scarcely be necessary to confirm these statements by extended reference; but I may mention the recorded cases of Dr. Merriman, numerous others, my own, and Dr. Ferguson's, as clearly proving this not infrequent coincidence. Mr. Hewlett's case, Dr. Merriman's, and my own, will satisfactorily establish the malignancy of the growths themselves. I might enlarge here; but sufficient testimony has perhaps been adduced, to confute an opinion, "that the coincidence of conception with a disease of the uterus, already malignant, is exceedingly rare."

I propose, then, to evade the dangers of inflammation of the pelvic tissues and peritoneum, and of the still more hazardous evils of unhealthy softening, suppuration, and ulceration of the tumours themselves, by the simple and safe expedient of premature labour; a practice accidentally suggested to me, and enforced, on reflection, by the fact, that death had frequently occurred where pregnancy was so complicated, under the best known treatment, exclusively of

premature labour artificially or spontaneously induced. Nine out of the eighteen cases which fell under the notice of Dr. Merriman terminated fatally: Mr. Hewlett's case was equally unsuccessful; and three of my own patients fell victims to grangrenous inflammation of the tumours, produced by their contusion during the process of delivery. Worse results could not have followed premature labour; and I feel confident, that, had it been induced, several lives might have been saved. It may be inquired, whether there was not sufficient mischief done to the uterus, in these cases, to insure a fatal event? Certainly not. In most of the cases mentioned by Dr. Merriman, there is no allusion to the condition of this viscus; and when there is, it is stated, with one exception only, to have been healthy. In Mr. Hewlett's and my own examples, the womb was free from inflammation. I believe these patients to have been destroyed, as others will be, where this practice is not adopted, by morbid and malignant changes in the tumours themselves; collapse, and final sinking, having been induced, much in the same way as after pressure and strangulation of an intestine, or after contusion of the soft parts in difficult labour, where an inspection after death commonly brings into view intense inflammation, and sometimes gangrene and disintegration.

A corroboration of the propriety of the measure is furnished by the marked success attendant on puncturing the tumours, especially where their contents were fluid, or viscid; and, in one or two instances, where blood only escaped. By this operation, the bulk and tension of the tumour were diminished, and the double purpose was accomplished, of a partial removal of the obstacle delaying parturition, as well as a preservation of the growth itself from that severe pressure and contusion which may lead to rupture of its parietes, and inflammation or gangrene of its substance.

Six cases published by Mr. Park of Liverpool, in the Second Volume of the Medico-Chirurgical Transactions, are equally in point. Puncturing the tumours was the most successful of all the measures adopted; and it is worthy of observation, that the only fatal termination occurred in a case where

the tumour, occupying the recto-vaginal septum, was subjected to the pressure and contusion of the fœtal cranium for three days. Delivery was eventually accomplished by the natural efforts, and the patient died in twenty-four hours, from vomiting and constipation.

A perusal of all that has hitherto been written on the subject will satisfy any one, that the procedure to be adopted in these unfortunate complications, at the time of labour, is by no means clearly defined. If the opposing growth can be pushed above the brim, the difficulty is at an end; but if it cannot be so raised, although puncture of the morbid structure is the best remedy for tumours with fluid contents, it will avail little in the management of solid and very hard growths. Extirpation by the knife may be thought of; but the connections of the tumour, the shock of the operation, the probable hemorrhage, and the subsequent inflammation, are events too certain and too hazardous to allow of a favourable prognosis.

These remarks are strictly applicable to morbid enlargements opposing the descent of the child; but they are equally pertinent to hard and malignant tumours of the uterus itself, and to ovarian and other growths of such magnitude and firmness of attachment, as to preclude the possibility (vide Mr. Hewlett's and my own cases) of their being lodged in the abdominal and pelvic cavities, together with the gravid womb, without exciting pressure and contusion. This observation is especially true where pregnancy is complicated with one or more hard tumours imbedded in the parietes. If the practice proposed were dangerous to the mother; if it increased her risk at the time, or if afterwards it placed her in a worse position than she had previously occupied — objections to it would carry great weight. It is, however, satisfactory to know, that none of these evils are the effect of premature labour artificially induced.

I think, therefore, I may regard as proved, that great advantage will accrue from this method, where the tumour cannot be raised above the brim; where it is situated in the abdomen, and is of such size as to restrain the development of the uterus with-

out painful pressure and contusion; or where the growths occupy the uterus itself.

Before concluding this chapter, I must allude to other affections complicating pregnancy, which, from the aggravated evils they produce, fully justify this practice. I do this with more satisfaction, as I find that Dr. Robert Lee, in a paper recently published in the Medical Gazette, confirms the value of the measure, so long recommended by myself, by a series of cases, of all which he remarks, "that premature labour was, or might have been employed with advantage."

In the list of such maladies, must be included cancer of the os and cervix uteri, especially in the early stage, and even when destructive ulceration has occurred; corroding ulcer and cauliflower excrescence of the os; diseases of the vagina, urethra, labia, and perineum; in all which, with varying probability of benefit, and in some with scarcely more than transient good, the measure may be adopted. From what has been said, it may be inferred, that circumstances must modify the propriety of the practice, and that the ultimate decision must depend on the judgment of the practitioner.

In one instance, where Dr. Lee was consulted, the patient had been twenty-four hours in labour; the os uteri being hard, irregular, and ulcerated, and so little dilated, that the presentation could not be ascertained. Twenty-five ounces of blood were drawn from the arm, and one drachm of laudanum was administered. The perforator was eventually used, the idea of making incisions into the diseased os uteri, after consulting an eminent surgeon, having been adandoned. Death occurred soon after delivery, and on examining the body, the neck of the uterus, extensively lacerated, presented the appearance of an irregular, dark-coloured, disorganized mass. "The danger of dying undelivered," remarks the author, "and the injury necessarily inflicted upon the uterus by the extraction of a child at the full period, would have been avoided or lessened by the induction of premature labour." It is easy to understand, where cancer of the lower portions of the uterus shall have advanced so far as to have destroyed their form and texture, that we have no reasonable ground for hope from any means which may be

employed; but even here, forlorn as must be our expectations, it is better to induce labour prematurely, than to allow it to occur, when the distention of the growing ovum can be no longer borne, and when, from experience, we know, that unlimited and almost immediately fatal laceration must happen. Dr. Lee remarks, "that if abortion does not take place, where pregnancy exists with cancer of the os uteri in an advanced stage, the membranes of the ovum should be perforated; and if the disease is less extensive, at the seventh and a half month."

His case, No. 141, affords satisfactory corroboration of the opinion already expressed, that death in labours thus complicated, is mainly referrible to what was found in that instance, viz. "a tumour in a state of inflammation and suppuration, attached by a large root to the right side of the body of the uterus. The peritoneum which covered it, adhered to the parietes of the abdomen, omentum, intestines, and liver. Numerous small fibrous growths, imbedded in other parts of the parietes of the uterus, were in a healthy state."

In Case 142, where pregnancy was complicated with an ovarian growth, premature labour was induced in December 1840. On August 10th 1841:—Dr. Lee observes, "that the tumour has been considerably reduced in size since the repeated application of leeches, and the long continued use of the liquor potassæ. The general health is nearly in the same condition as before pregnancy."

There can be little doubt, that this practice will hereafter be generally adopted; where ovarian dropsy or ascites, organic affections of the heart and excessive sickness, render the continuance of pregnancy a matter of serious risk.

PREGNANCY COMPLICATED WITH ORGANIC DISEASES.

Case 55.

The following Case I saw several times, in consultation with Dr. Robert Ferguson, of King's College; and the details were communicated to me in a letter from himself.

"On the 30th January 1840, I saw Mrs. M——, at the desire of Mr. Thompson of Blackmoor Street, who knew that she had a large pelvic tumour, and suspected that she was pregnant. I learned that she was 36 years of age, had been married two years and a half, and had miscarried at five months after her marriage. The grounds for her own belief in her pregnancy, were chiefly, that she, who had been previously regular, had ceased to be so since the 20th July 1839; and that, moreover, she felt as formerly in her first pregnancy. External examination merely detected a large unequal tumour running across the hypogastric region, in which I could neither hear the sound of the so-called placental murmur, nor the pulsation of the fœtal heart. Internally, I found the pelvis filled to three-fourths of its depth by a hard, smooth substance, which was obviously situated behind the vagina and before the rectum. The upper part of the pelvic outlet was nearly obliterated by the tumour; the vagina was twisted so as to form a circular fold by the os tincæ, which rested over the symphysis pubis on the left side, so that it could with difficulty be reached, even after strong abdominal pressure had been resorted to, with a view to cause the uterus to descend. Not being able to ascertain anything satisfactory as to the main point, viz. whether this case of tumour was one complicated with pregnancy, I requested Mr. Thompson to auscult the abdomen very frequently, and to inform me of the result. On the 5th March, this gentleman had no doubt of the fact, and I on that day both heard the placental murmur, and felt the movements of the child.

"It now became of serious moment to determine immediately our course of action; and as the patient had, on a former occasion, consulted you, and knowing the extent of your experience in these very cases myself, I gladly availed myself of your aid in assisting our deliberations. The rest of the history you are acquainted with. You know with what difficulty the membranes were perforated, where the os uteri could be touched only at its posterior lip; that in twenty-four hours after, labour commenced, when, instead of the head, we found the nates presenting. It became, as you are aware, advisable to bring down a leg, in order

to aid the expulsive efforts of the uterus, which were strong, though unavailing. An attempt was made to pass the hand into the pelvis; and then I found that the tumour could be in some measure pushed up. Nevertheless, it being impossible to enter the uterus with the hand, I was constrained to pass up the blunt hook, and fix it in the groin of the fœtus. It was after considerable traction that the body was brought down, as you well know, who assisted in the delivery of a dead child. The placenta came away in a few minutes. I saw our patient three or four days after the labour, and found the vagina stiff, thickened, and coagulated into hard cords. About the third week, after a great deal of pain, a very fetid mass passed away, without any gush of water, which the patient said was black and like a cow's teat. Mr. Thompson then discovered that the tumour was gone. I now examined the patient, and ascertained that there was a hard mass, the relics of a perforation, in the vagina, through which the tumour had sloughed away, leaving the pelvis capacious, and in every respect natural. A few months after this, I once more saw Mrs. M., who was in excellent health, and found little or no trace in the vagina which could indicate the history of her perils and escapes."

"Robert Ferguson."

Case 56.

REPORTED BY MR. BENJAMIN RIDGE.

Mary ——, aged 34, living in the Wesminster Road, has been married twelve years, without any previous occurrence of pregnancy: has been a patient of Dr. Cholmeley, in Guy's Hospital. When visited, on the 13th of February 1835, she was found with the bowels constipated, and the whole of the intestinal canal distended by flatus. Upon more careful examination, a large hard tumour was discovered on the right side of the abdomen, just above the ilium; which she said had existed for many months, but which had latterly grown very rapidly. She complained of great pain, when it was pressed; and even at other times it was often uneasy.

According to her own calculation, she was advancing towards the sixth month of gestation, and had experienced all the symptoms usually attendant upon that condition. She was ordered to take a mild aperient.

At seven o'clock the following morning, hemorrhage from the vagina occurred; and in an hour afterwards a male fœtus was expelled. The abdomen continued large, and the pains did not subside; and when the

finger was passed to the os, which was fully dilated, the head of a second fœtus was discovered. In two hours, this also was pushed into the world, the face lying forwards on the pubes. There was considerable delay in the expulsion of the placenta; and an apprehension existing that danger might arise from the tumour, Dr. Ashwell was sent for. On his arrival, he found the uterus large; and having introduced his hand into the uterine cavity, he brought away the placenta, expressing his fears for the well-doing of the patient; not because she had lost some blood or had been fatigued by the labour, but from the collapse into which she was fast sinking, and which he attributed to the tumour. The secale cornutum had been exhibited, but had failed to produce contraction. The abdomen continued to increase, rather than to diminish in size; and it was quite evident that there was a large growth connected with, if not directly attached to, the uterus. In a few hours she died; brandy and ammonia having been largely given, without producing more than a temporary effect.

On the 14th February, the day after delivery, the body was inspected. The usual characteristic products of peritoneal inflammation were universally diffused throughout the abdominal cavity, but more especially about the uterus, its investments, and the tumour. The latter grew from the fundus, and appeared to be a continuation of its parietes, of scirrhous hardness, and only slightly vascular. On the posterior part of the growth there was a fissured softening, into which there had been poured some ill-conditioned, purulent fluid. In the walls of the uterus were deposited two rather large hard tubercles, in whose texture softening or breaking down had evidently commenced. The structure of the uterus itself was otherwise quite healthy.

In this case, the weight and situation of the principal tumour seriously obstructed the ascent of the uterus. It grew from and rested on the fundus, and probably excited premature uterine action. How far the tubercles imbedded in the sides of the womb, might have prevented the development of their substance, it is not easy to determine; but it is not at all unlikely that they may have aided the principal growth, in the production of the labour. It must be borne in mind, that there were here no evident causes inducing premature parturition: there had been no blow, no over fatigue or exertion; but there had been growth and pain of the tumour; and to these, uterine action must, I think, be attributed. Another useful practical inference dedu-

cible from this case is, that to the growth, and the pain accompanying it, we must especially look, as our guides in the management; more particularly, as to the time when the uterus is to be emptied.* It is also worth while to inquire, what might have been, in this and in the other cases, the beneficial effects of general and local bleedings, and of an antiphlogistic regimen, associated with perfect quietude, previously to parturition.

Case 57.

On Sunday, 8th January, 1832, I met Mr. Callaway in consultation, on the following case:—

Mrs. ——, residing in Surrey, aged 44, has been married fourteen years; and eight years ago, she became the mother of a girl now living. Since this time, she has not been pregnant, and the catamenia have observed their natural periods.

July 1831, was the last appearance of menstruation. In September, she had two or three gushes of blood from the vagina, while walking in her garden; and a month subsequently, she suffered so severely from pain at the lower part of her abdomen, as to place herself under professional care. Mr. C. then visited her; and, on examination, discovered a rather hard, round, and uneven tumour in the right groin, tender on pressure, and moveable. There was no discharge; and, as the uneasiness passed away, no further notice was taken of it.

In November, she was visited by Dr. Conquest, who carefully examined the os and cervix uteri. He found the os rather patulous, and the texture of the cervix, and parts adjacent, unusually soft. A tumour, apparently distinct from that in the right, was now perceptible in the left groin; and Dr. C. was of opinion, that they were both produced by some morbid growth within the uterus, most probably the fleshy tubercle.

January 8th 1832. I can clearly trace a tumour, unequal on its surface, oval in shape, and wanting the firm, indurated feel of a healthy impregnated uterus, occupying the abdominal cavity, from the pubes to

* It may, I think, be fairly presumed, judging from the extensive morbid processes evident in the tumour, that if gestation had not been brought to a premature close, the greater portion of the uterine growth would, by the end of the natural term, have been entirely softened and broken down.

above the umbilicus, moveable, and of the size of a six months' pregnancy. At its lower part, it is of very unequal hardness. The induration occupying the left groin is more defined, firm, and resisting; while the portion of the tumour situated in the right, although distinct, is soft, and yields easily to pressure.

The cervix has lost a considerable portion of its length; the os is sealed; and the body of the uterus is evidently enlarged. I cannot, however, balance the head of a child, nor can I form a correct opinion as to the character of the uterine contents. There is, undoubtedly, an unnatural feel about the parts: there is not the firm and healthy character of pregnancy. The weight of proof seems to incline to the fact of pregnancy in association with some morbid growths or tumours. There may be a blighted ovum, and an accumulation of hydatids or vesicles. Mrs. —— frequently feels something like the natural movements of a fœtus, but still more frequently merely a fluctuation. She has suffered occasionally from nausea and vomiting, and many of the symptoms of early pregnancy.

It is now six months since the last menstruation; and, but for the occasional hemorrhages, the morbid growths perceived externally, and there not having been pregnancy for the previous eight years, and the period having nearly arrived when the function of reproduction generally ceases, there would not be any, or much hesitation. These circumstances perplex and complicate the case, and render it necessary to look well to her general health, and watch the further development of these interesting symptoms.

In February, Sir Charles Clarke was consulted; and after a protracted and careful investigation, confirmed the views already entertained; viz., "that it was pregnancy complicated with tumour." The balancing of the fœtus was not accomplished, nor could any opinion be formed as to the presentation.

At this time (February), and for some weeks previously, there had been frequent gushes of blood from the vagina, occurring without any unusual effort or exertion. These I regarded as indicative either of the attachment of the placenta over the os uteri, or as the result of the softening of the morbid growths: the former supposition was correct.

On the 4th of March there was a large hemorrhage, accompanied by slight uterine pain. On examination, the os uteri was ascertained to be opening; and in a few hours I perceived the placenta to be attached over the os. I remained with my patient, the late Dr. Key also being present; and about four o'clock A.M. of the 5th of March, twelve hours after the commencement of the flooding, and under collapse

which precluded all hope, I introduced my hand through the membranes, thus partially detaching the placenta, into the uterine cavity. The liquor amnii had not escaped; there was therefore no difficulty in turning the child: and as the genital organs were relaxed, itsbirth was completed in a few minutes. The testicles were in the scrotum; and from the general appearance of the child, I believe it was at the eighth month.

Not more than half a pint of blood was lost during and immediately after the delivery; but her powers gradually failed, and in a few hours she died.

The inspection was made by Dr. Hodgkin, whose report I subjoin.

"The external appearances offered nothing remarkable; the body being free from discolouration, and not emaciated. The abdomen only was examined. The peritoneum was pale, and contained about a pint of sero-purulent fluid, of a light but soiled yellow colour, and of a highly viscid or ropy character: it bathed all the contents of the abdomen, and produced a smarting sensation on the hands immersed in it. The alimentary canal was distended by air, but, so far as it was examined, was free from any morbid appearances. The liver was pale and flabby; the spleen soft, and of a light lilac colour. The uterus was rather imperfectly contracted, and of unequal firmness, in consequence of the two considerable tumours to be presently noticed. Immediately under the peritoneal coat, at the anterior part, were two or three tubercles of semicartilaginous hardness; and two about as large as cob-nuts, rather vascular externally, and possessing an internal structure, evidently depending on cysts, and breaking down and softening. The two large tubercles, before spoken of, were each about the size of an orange, imbedded in the substance of the uterus, and possessing a scirrhous character, and a structure dependent on cysts, but on a larger scale than in the scirrhous tubercle: they resembled fungoid disease. Considerable portions of both were breaking down, from the loss of their vitality; and presented a dirty, pale, yellowish green. Intermixed with the livid colour, there was a little dirty fluid in the cells. The lining membrane of the uterus presented the dark colour and soft pulpy consistence usually met with soon after parturition. The ovaries were of moderate size, quite soft and lacerable: in one of them there was a distinct corpus luteum. The Fallopian tubes offered nothing remarkable."

I have not often met with a case in which there was greater difficulty in determining the existence of pregnancy; a difficulty so perplexing, that it would, probably, under any impression of the value of premature labour, artificially induced, have precluded its agency. It is, however, more than possible, that, even here, this plan of treatment might have done much good.

Case 58.

REPORTED BY MR. J. C. W. LEVER.

Ann C——, Miriam Ward, Guy's Hospital, delivered May 26, 1834, of a living male child.

This woman was admitted in September, 1833, into Dorcas Ward, under the care of Dr. Bright. There was then a tumour at the lower part of the abdomen, which had increased rapidly within the last three or four weeks. She first perceived its existence seven or eight years previously; as a lump immediately above the pubes. She had been married two years, but had not been pregnant. The catamenia had been always regular: bowels sufficiently open.

Oct. 2. Dr. Ashwell examined, and made the following report:— "Internally, I find the os and cervix healthy, and of their natural size; neither is the body of the uterus enlarged. Externally, the hand may be passed between the lower edge of the tumour and the upper part of the symphysis, so as to feel the promontory of the sacrum. On the whole, I am inclined to believe it to be an ovarian growth."

Oct. 25. Complains of unpleasant sensations in the abdomen, and disinclination for food: there is no nausea or purging: the catamenia have been suppressed for ten weeks: the abdomen increases: breasts tender.

Nov. 4. Dr. Ashwell reported, that "he believed the uterus unimpregnated."

Jan. 24. Dr. Bright thus remarks:—"The tumour has changed its form more within the last few days than ever before, projecting, in its upper part, to the right side: and she imagines she feels occasional motion within it."

Feb. 2. Dr. Ashwell remarks, that "there is considerable change, both externally and within. The tumour, which in October was low

down in the abdomen, is now pushed up as high as the left hypochondriac region; and in the centre of the belly, but more particularly on the right side, low down, there is fluctuation; but there is nothing to be felt like the limbs of a fœtus. The cervix uteri is remarkably altered, being soft, perfectly closed, and half an inch short of its natural length. On balancing the uterus, I thought something ascended, and then subsided again, as though I had displaced a foreign body. There is great obscurity about the case."

April 19. Dr. Bright noted—"She feels movement much on the right side, and progressively enlarges." On several examinations with the stethoscope, by Dr. Ashwell and others, the placental soufflet and fœtal pulsation were distinctly heard.

At a quarter-past 6 P.M., May 26, Mr. Lever was called. He learned that there had been pains throughout the night: they now recurred, at intervals of about ten minutes. The os was dilated to the size of a shilling, and rigid.

At 4 A.M., on the 27th, the membranes ruptured spontaneously, and the vertex presented. The child was born at a quarter to 9. There was some resistance, occasioned by the thickness and rigidity of the perineum. The uterus contracted well; and the ovarian growth could be defined, occupying the left side of the abdomen. At 12 o'clock she expressed herself comfortable.

27th. Doing well.

28th. Ol. Ricini ℥fs.

31st. The tumour has greatly increased in size, and is painful on the slightest touch. Pressure on other portions of the abdomen is unattended with pain. Bowels confined: pulse 130: tongue cracked and furred: countenance collapsed.

> Pul, Jalap. c̄ Hyd. submur. ℥fs. statim.—Pil. Ant. Opiat. fort. c̄ Cal. gr. ij. tertiis horis.—Cataplasma Lini abdomini secundâ quâque horâ renovandum.

10 P.M. Has passed three dark fetid motions. Feels more comfortable. Pulse 96. Less pain in the tumour. Lochia still flow. There is a scanty secretion of milk, and her aspect is still very unfavourable.

June 1. Much worse this morning: there is considerable pain over the region of the tumour. Pulse 130: countenance anxious and distressed.

Appl. Hirudines xv. statim, et posteà cataplasm. Lini.—Sumat. Pulv. Rhei c̄ Cal. ʒfs. statim; et repetatur post horas quatuor, si opus fuerit.

Half-past 8 P. M. The leeches have greatly relieved her, the pain and tenderness much diminished. Pulse 100: bowels opened three times. She has vomited some vitiated bile.

Hyd. subm. gr. iij. c̄ Pulv. Opii gr. fs. statim sumend.; et quartâ quâque horâ repetend.

June 2nd. 1 A. M. She appears in every respect better.

2 P. M. Pulse 100: bowels opened twice: mouth slightly affected: less pain and tenderness.

June 3rd. Pain increased over the abdomen: pulse quick and hard.

Appl. Hirudines x abdom. et posteà cataplasm. Lini.—Omitt. Pil. —Mist. effervescens c̄ Tinct. Hyoscyami m. xl. quartis horis sumend.

4th. Bowels open: pulse softer: less pain and tenderness.—Pergat.

5th. Greatly improved.

6th. There is a recurrence of the abdominal pain and tenderness.

Hirudines viij. abdom. applicand. posteà cataplasm. Lini.—Hyd. submur. gr. ij. Opii gr. fs. statim, et h. s.

7th. The leeches have relieved her, although she is unable to move in bed without experiencing pain. The tumour, by pressing on the neck of the bladder, obstructs the passage of urine. A catheter was passed, and eight ounces of ammoniacal urine were drawn off, with great relief.

8th. The tumour is smaller and less firm, and fluctuation is perceptible on the left side. There is a troublesome diarrhœa.

Mist. Cretæ c̄ Conf. Aromat. gr. x. et Tinct. Opii m̄ iij. tertiis horis.

10th. The diarrhœa continues.

Enema Amyli c̄ Tinct. Opii m. xl. statim injiciend.; et. P.

12th. Is much improved, although weak and exhausted.

Infus. Cuspariæ c̄ Ammon. Carb. gr. viij. et Tinct. Cinnam. ʒfs. ter die. P.—A pint of porter daily.

15th. Much improved. The tumour is considerably diminished, and fluctuation is perceptible throughout: it does not interfere with the passage of urine.—Two pints of porter daily.

18th. Gradually increasing in strength.

July 2. Her child died this morning, which has greatly depressed her.

18th. Increasing in strength, and diminishing in size.

25th. Transferred to Dr. Bright.

March 20, 1836. The sister of the ward saw this patient a few days since, and reports, that the tumour is greatly increased in size since parturition. The catamenia have been regular; but she frequently suffers pain in the growth itself.

Case 59.

OSTEO-SARCOMA OF THE THIGH—PREMATURE LABOUR ARTIFICIALLY INDUCED—BREECH PRESENTATION.

REPORTED BY MR. HENRY OLDHAM.

Sophia B———, Dorcas Ward, delivered of a still-born female child on the 21st of June 1835.

This woman was a patient of Mr. Key, in Dorcas Ward. She was admitted, labouring under osteo-sarcoma of the knee, involving the lower half of the femur and the heads of the tibia and fibula. Owing to the rapid extension of the disease, it was evident that no time ought to be lost before resorting to amputation, the only means of cure. According to her reckoning, she was between seven and eight months advanced in pregnancy. In order, then, to allow the completion of the period of gestation, and the usual time of recovery, an interval of two or three months would necessarily elapse before the performance of the operation; which, from the rapid growth of the local affection, would then be rendered unavailable. It was therefore thought advisable to induce premature labour.

Dr. Ashwell first attempted to effect this object, by detaching the membranes with his finger; but this proved insufficient for the purpose. He then punctured them by means of a catheter, containing a sharp-pointed silver wire; which, by communicating with a spring at the lower extremity, could be made to emerge at the point of the instrument, at the operator's wish.

Having introduced the fore-finger of the left-hand *within* the os uteri, it served as a guide for the passage of the catheter, and thus the membranes were ruptured. An instant discharge of the liquor amnii succeeded, the whole of which was evacuated in three hours.

The membranes were punctured at half-past nine A. M. on the 20th: at half-past ten A. M. she was ordered

Tinct. Secalis Cornut. m. xxx. ex Mist. Camph. ʒx. statim sumend.

This draught was repeated at two P.M. No uterine action was established till one P.M. on the 21st. The pains were then feeble and transient. Shortly, however, they became more vigorous; and at half-past four P.M. she was delivered of a still-born female child, under a breech presentation. It may be here observed, that twenty-seven hours and a half elapsed between puncturing the membranes and the commencement of labour, and fifty between the puncturing and the termination.

June 22. Has slept well: no lochia: no milk: breasts cool and flaccid: she feels comfortable, and is doing well.

On the 30th of June, Dr. Ashwell thought her sufficiently recovered to undergo the operation. Hardly a trace of the lochia had appeared, and milk was not secreted. Mr. Key amputated the limb; but, owing to the extension of the disease upwards, the tourniquet was obliged to be dispensed with, and pressure was made on the artery just below Poupart's ligament.

July 1. She appeared to have suffered very little from the effects of the operation: she was cheerful, and free from pain. Skin moist: pulse 82, soft.

She continued daily to improve: the stump was healthy; and every thing promised a favourable issue. She steadily advanced towards recovery for four or five weeks, although in a very emaciated condition. Suddenly, however, during the very hot weather, without any apparent exciting cause, she began to sink; and in spite of all efforts to maintain her power, she expired.

SECTIO CADAVERIS.—BY DR. HODGKIN.

The head was not opened.

The areolæ about the nipples were very dark: the rete mucosum upon the breast and abdomen was also unusually so, and rather spotted; there was a small soft tumour in the situation of the inguinal glands, on the right side.

The anterior part of both lungs appeared pale, and ex-sanguine. The pleuræ were nearly or quite free from old adhesions; but there was some fluid effusion on both sides, with unequivocal traces of

recent pleuritis on the left side, inferiorly and posteriorly: the pleura pulmonalis having, at this part, a thin layer of feebly-concreted lymph slightly adherent to it: the accompanying fluid was turbid and sanguinolent. The corresponding portion of lung was of a deepish dull red, consolidated, and nearly impervious to air; and having some small detached spots, formed by collections of pus dispersed through it, and making their appearance upon the pleural surface: these spots appeared to be the result of the inflammation of particular lobules. In the same lung there was one small well-defined tubercle, scarcely so large as a small marble, exhibiting the peculiar structure dependent on cysts, and rather of soft consistence: there was an equivocal appearance of another tumour, of smaller size. The right lung contained small collections of pus. These collections, like those in the opposite lung, appeared to be the result of acute inflammation of particular lobules. There was some recent inflammation in the surrounding pulmonary structure; but its appearance was modified by cadaveric infiltration. No malignant tubercles could be detected in the substance of this lung; but one small calculus was found imbedded in healthy structure.

The pericardium contained some fluid, but it did not appear to be unhealthy. The heart was flabby, and its substance very pale: it contained a feeble fibrous coagulum, with some fluid blood or serum.

The general appearance of the viscera of the abdomen was healthy: there was merely a little effused serum, without any other indication of either old or recent peritonitis. The mucous membrane of the stomach was rather injected, and partly of a reddish dusky colour; but neither its texture nor its secretion appeared to be unhealthy. The duodenum was rather large; its internal surface granular, the glands of Brunner being remarkably pale and prominent. The mucous membrane of the ileum appeared to be perfectly healthy. The aggregate glands, even at the termination, were very faintly visible. The mucous membrane of the large intestines was but imperfectly examined; but where noticed, it appeared to be quite healthy. The absorbent vessels on the surface of the liver were beautifully distinct. The incised surface of the liver exhibited little distinction of acini; and the substance was of a somewhat smooth plastic consistence: the liver was not gorged with blood, and no tubercles of any description were detected in it. The gall-bladder was rather distended. The spleen was large, turgid, and of remarkably dark colour; its incised surface exhibited a mottled appearance, conveying the idea that its dark colour was owing to sulphureted hydrogen, the influence of which had not penetrated to every part. The emulgent veins were remarkably large, as was also the cava where it re-

ceived them; yet, in both situations, the venous texture appeared healthy; but immediately below, indications of inflammation commenced. A thin layer of concrete lymph slightly adhered to the internal surface of the cava; the coats of the veins were found increasingly thick, as the pelvis was approached; and at the termination of the cava, in both iliacs, as well as in some of their branches, they were nearly as thick as the coats of an artery. Though their calibre was large, they appeared, in some parts, to be corrugated; and they contained an opaque, tender, dirty-white coagulum, feebly adherent, and intermixed with more recent red coagulum, or with a dirty puriform fluid, which gave to these veins, when cut into, very much the appearance of little abscesses. Besides the opaque whitish concrete matter within the cava, opaque whitish spots were observed immediately beneath the lining membrane, at the most inflamed part: they bore the closest resemblance to the light atheromatous deposit so commonly seen beneath the lining membrane of the aorta. The veins in the pelvis, especially those connected with the uterus, seemed to have been inflamed during the longest time and in the greatest degree. The neighbouring cellular membrane was considerably indurated; but was generally pale, and showed no disposition to suppuration. The uterus was as much contracted as could be reasonably expected: its substance appeared quite healthy: its internal surface still retained the evident marks of recent delivery: the ovaries were large; the spermatic veins were large, but not inflamed; at most, they only contained recent coagulum. The femoral vein, and its branches in the stump, were generally inflamed, but not so much near the extremity as higher up. The last portions of the femoral vein and femoral artery were contracted upon clots of coagulated blood. The small tumour in the groin was caused by a suppurated absorbent gland: the veins about it were filled with fluid pus. The epigastric vein was traced, in this state, for about four inches, where the vein appeared healthy. The internal surface of the inflamed vein was quite smooth: its thin coats separated from its sheath of inflamed and indurated cellular membrane, very much in the same way that the mucous membrane of the intestines may be detached from the other coats, in some cases of peritonitis. Besides the absorbent gland above mentioned, others appeared to be inclined to suppurate; and some of those accompanying the external iliac were a little enlarged, slightly indurated, and of a greyish colour; but there was no appearance of malignant disease in them, nor in any other organ except the right lung. There was a small collection of pus near the end of the stump.

Case 60.

REPORTED BY MR. J. HENRY ROBERTS.

Mrs. M——, a widow, the mother of three living children, was taken in labour at 11 A.M. in January of 1834. The report commences at 4 P.M., when it was stated, by the gentleman who had been in attendance, that every thing was proceeding favourably. On examination, however, the left foot was found low down in the vagina, with the toes towards the pubes. The pains were irregular and inefficient, although it was stated they had been energetic. When they returned more vigorously, an attempt was made to turn the child's abdomen towards the sacrum of the mother, in order to facilitate its birth and protect its life. This effort was thwarted by a firm solid body projecting into the upper portion of the vagina, and so narrowing the passage as to oppose an effectual obstacle to an alteration of position, or to the further progress of the labour. The patient at this time was exhausted by her efforts: her pulse became quick, skin hot, &c., indicating a necessity for speedy delivery. Suddenly, however, she complained of something giving way; and, on examination, it was found that all vestige of the tumour had disappeared, and that a black, fetid, viscid fluid had been discharged, probably amounting in quantity to thirteen or fourteen ounces. The delivery was shortly afterwards effected, although a slight antero-posterior contraction of the brim retarded it: the child was still-born.

She appeared to rally an hour or two after the delivery, although there was a continual draining of the same dark offensive fluid from the vagina.

The following day she exhibited symptoms of collapse, with great pain in the left iliac and lumbar regions, the site of the tumour. As she had not emptied the bladder, a catheter was introduced, and about four ounces of urine were drawn off. In spite of all efforts at restoration, by stimuli, &c., she continued gradually to sink; and died on the evening of the second day.

An inspection was permitted. There were no traces of peritoneal inflammation. The uterus was found contracted to the size of a fœtal head, and there was no discernible lesion in it. The left parietes had suffered pressure, from their proximity to the tumour. There was found a large cyst, emptied of its contents, growing from the ovary; and which, if distended by fluid, would have occupied a space between

the floating ribs and the cavity of the pelvis. The parietes of this cyst, in their lowest portion, had come in contact with the upper and left portion of the vagina, and, probably by the pressure of the gravid uterus, had been detained there, till, by the successive processes of inflammation and ulceration, they had adhered to, and eventually discharged their contents through the vagina. The vagina, in this part, was in a gangrenous state, communicating, by an opening effected during the labour-pains, with the cyst. This rupture was doubtless the occasion of the sudden disappearance of the tumour, and the black fetid discharge.

Case 61.

MALIGNANT DISEASE OF THE EXTERNAL GENITALS, COMPLICATED WITH PREGNANCY.

REPORTED BY DR. JOSEPH RIDGE.

Maria T——, aged 38, a woman of middle stature, with a somewhat emaciated appearance, her countenance denoting anxiety and distress, was admitted under Dr. Ashwell, 30th of August, 1836. She is the mother of four children, the last of which was born three years since. Her health has been good; and she has followed the occupation of weaving, excepting during the last three years, when she has been engaged as a nurse. She is now six months advanced in pregnancy; and the catamenia have recurred, though pale and scanty, and for two or three days only, during her present gestation. About twelve months ago, in an attempt to raise a bulky patient, she strained herself, and felt something give way in the left groin, which was succeeded by a swelling about the size of a hen's egg, and she was obliged to keep her bed. This gradually subsided, leaving the part hard and knotty; and the surrounding integument shortly assumed the same appearance. During the last five months, this disease has greatly increased, the parts becoming more swollen and vascular; and within the last month, ulceration, with hemorrhage, has commenced in the most prominent parts. This disease, which appears to be a carcinomatous tubercular deposit, extends, at present, from the left groin down to the labium, involving the upper part of the nymphæ, and reaching the mons veneris, and on this side the most projecting parts are ulcerated, discharging a thin ichorous fluid. The neighbouring integuments are occupied by distinct scirrhous tubercles. The right groin is less affected; although its skin is elevated, and the right labium hard to the touch, and much swollen.

The vagina is healthy. She suffers severe stabbing pains in the diseased parts, and a more fixed pain in the back. Tongue slightly furred. Pulse soft and rather quick. Bowels open. The fœtal heart and placental souffle were readily distinguished.

Cataplasm Conii part. affect.
Jul. Ammon. Acet. c̄ Sp. Æth. Nit. et Tinct. Hyoscy. āā m. xx. t. d.
Liq. Op. sed. m. x. ex Mist. Camph, o. n.

The conium poultice failed to relieve the severe lancinating pains; and some vin. opii, soaked in lint, was applied over the surface. She was ordered nutritious diet, with wine and porter, some ol. ricini occasionally, and a light bread-poultice was applied over the lint and vin. opii: by these means the acute pain was mitigated, but the disease rapidly increased. In the course of a fortnight, the whole of the external parts of generation were involved; the os externum was contracted, and some parts were softening down. The anxiety of countenance became more confirmed; there were febrile paroxysms at night; the extremities were daily emaciating; and the pain was more severe.

On the 23d of September, three weeks after her admission, Dr. Ashwell punctured the membranes with the view of inducing labour; and some liquor amnii immediately escaped.

In nineteen hours afterwards, labour-pains commenced; and during this interval her local sufferings had been much relieved, and she had enjoyed several hours' sleep. Every advantage was afforded, by restraining the rapid advance of the fœtal head, for a gradual dilatation of the external parts; but as labour progressed, the labia became everted, and some dark grumous blood was discharged from the left. As the head was urged towards the outlet, it became evident that its exit could not occur, without the tearing away of a considerable portion of the diseased structure and such a hemorrhage, as the enfeebled state of the patient's powers would ill sustain. At this time, Mr. Lever came to my assistance; and finding the head unusually firm and large, and that no pulsation was perceptible in the fontanelles, he determined to perforate the cranium. The greater portion of the brain escaped, with much blood; and the uterine efforts quickly expelled the collapsed head, the shoulders and nates gently following it. A slight laceration of the fourchette occurred, notwithstanding the firm support afforded to the perinæum, but it did not extend to the softer, or, rather, less scirrhous parts. The placenta soon followed. The uterus contracted firmly, and, excepting a slight oozing from the morbid growth,

scarcely any blood was lost. The child was well formed, and a little beyond the seventh month.

Sumat. Tinct. Opii m. L. ex Aq. Menth. statim.

Shortly after delivery, some brandy and water was administered, as she seemed exhausted. In the evening, she had passed urine without difficulty and was comparatively free from pain. No hemorrhage. Thirst: pulse 130: fuller; skin hot. She was ordered,

Cataplasm. Panis. part. affect.—Sago, Barley-water, &c.

August 25. Countenance improved, and she feels better. Pain in the external parts returned in the night, which appear much the same as before delivery. Tongue moist: skin perspirable: pulse 125, soft and compressible: very little lochia.

Toast-and-water, with Isinglass, Arrow-root, &c.
Capiat Liq. Op. Sed. m. xxv. horâ somni.

In the evening there was a slight rigor; which was relieved by extra clothing, and warm applications to the feet. The abdomen somewhat fuller.

Ol. Ricini cras manè, c̄ Tinct. Opii m. x.

26th. Bowels twice relieved. There is some tenderness, on pressure, over the right side of the abdomen: the liver is large, and low down: the breasts are filling: pulse 125, compressible: heat of surface moderate: tongue more furred, inclined to brown.

Vespere. The abdominal tenderness is increased, and there is more flatulent distension: complains of weakness, with lumbar pain: some heat of skin. Pulse 135, compressible: very little vaginal discharge.

Cataplasm. Sinapis abdomini.—Empl. Belladon. lumbis.—Applic. Hirud. x. abdom. si dolor augeatur; et posteà, Fotus calid.

℞ Tinct. Castor. Sp. Lavand. C. āā ʒij.
Ammon. Carb. ℈i. Tinct. Opii ʒi. m̄.
Fiat mistura, cujus capiat. cochl. i. min. sextis horis, ex aquâ.

27th. Abdominal tenderness removed: skin cooler and moist. Pulse 130, soft. There is pain about the left hip; over which there is an erythematous redness.

Fot. Papav. coxæ.

28th. She is looking much better: the abdomen is free from pain: erysipelas is extending over the hip, and there is effusion in the cellular

tissue beneath: the mammæ are distended and tender: they have been fomented, and the milk drawn from them by an exhausting-pump. Pulse 125, soft, and easily compressed: tongue moist.

Beef-tea, Sago, Wine.

29th. Improving: the erysipelas is less apparent. Pergat.

30th. She has passed a restless night, and her countenance is now greatly depressed: there is some tenderness around the umbilicus: bowels open: skin very moist: respiration hurried: tongue becoming brown. Pulse 130; small, and easily compressed.

Inf. Serpent. c̄ Ammon. Carb. gr. v. 4tis horis.

Vespere. Has passed three relaxed motions: no abdominal pain: respiration, 48 in the minute.

Enema Amyli c̄ Tinct. Opii ʒi. statim.

Pil. Sapon. c̄ Opio gr. v. 4tis horis.

Oct. 1. She is gradually sinking. The diarrhœa was stayed by the opiate and enema: the skin is moistened with a cold perspiration: the countenance is contracted, and fallen. Respiration 42, catching. Pulse 160.

Brandy and other stimulants were administered; but she died at 4 P.M.

INSPECTION.

The close pericardium presented three or four small hard tubercles: the pleuræ were copiously sprinkled with tubercles of the scirrhous kind; some were minute, pale, and firm; others, varying from the size of a pea, presented flattened hemispheres, whilst a few more nearly approached a medullary character: the lungs were doughy to the touch; and there were some medullary deposits scattered in their texture, of a redder and more opaque nature than those in the serous membranes: the peritoneum was bathed by a reddish turbid effusion; and here and there, particularly on the portion covering the convexity of the liver, were some thin feeble layers of adherent fibrin; the liver was greatly enlarged, and lay widely expanded over the other viscera: its texture was very coarse and soft; and it was extensively occupied, within, and upon its surface, with cerebriform fungoid deposits. Externally in the liver, they appeared as soft fluctuating projections, reddened by injected and extravasated blood. In the interior, these deposits were larger and more numerous; appearing, in some parts, as masses of

white brain-like matter; whilst in others they seemed breaking down, forming cavities filled with grumous blood: the greater portion of the inferior and upper part of the liver was thus either dissolving or entirely broken up. The spleen was similarly invaded: the deposits were mostly of a lightish colour, and somewhat translucent; and others were in a state of ecchymosis and softening.

The uterus was of the size of a moderately large orange; its serous covering, clear and smooth; the walls pale, loose, and flabby; the lining membrane was somewhat dark and turgid; and in parts, especially where the placenta had been attached, it appeared coarse and rugged. The cervix was thin, soft, and flaccid: the anterior lip of the os was tumid and hard, and the seat of a scirrhous deposit: the vagina, in its upper part, was wide and smooth; but below, the surface was firm and indurated.

The lumbar glands were greatly enlarged, from a medullary fungoid degeneration.

The other organs were healthy.

REMARKS.

A disease of the kind already described, co-existing with pregnancy, is, happily, not at all common: still there can be no difficulty or doubt as to the treatment.

If the ulceration had been stationary, or limited to a circumscribed and small locality, it would have been right to have allowed gestation to proceed uninterruptedly: as it was, the lives of both mother and child were endangered by the continuance of gestation: the former was compromised by the rapid progress of the ulceration, which in great measure depended on the excitement of pregnancy, and the increased vascular supply consequently furnished to the diseased structure; while the chance of preserving the life of the latter was daily diminishing; for the fœtal bulk was increasing, at the same time that the passage through which it was to be propelled was rapidly narrowing.

If, therefore, the mother could have lived sufficiently long to have allowed of the completion of the term, it is all but certain, that the normal form and structure of the vagina and os uteri would have been so destroyed by ulceration, and by vascular

fungous growth, as to have precluded any other method of delivery than by the Cæsarean operation: nor is it at all probable that the life of the child could have been preserved, under such sufferings, emaciation, and exhaustion of the mother. These circumstances, then, determined me to bring on premature labour: nor does the result of the practice invalidate the correctness and expediency of the principle on which it rested. The patient's sudden and rather unexpected death was attributable to the latent peritoneal inflammation and intestinal disturbance; induced by the very advanced state of the hepatic disease, aided, perhaps, in some degree, by the tendency to peritonitis so common after parturition, and, as already observed, after any operation connected with the pelvis or its viscera.

The following observations were contained in a letter which I have received from Dr. Hodgkin; and I have inserted them here, as they tend to give his authority in confirmation of the opinions already expressed by myself in the body of the paper.

"Before proceeding to make, as an appendage to thy paper, the few remarks which I am about to offer respecting those adventitious growths which are met with in the parietes of the uterus, and which are commonly known by the name of fibrous tubercles of the uterus, I would observe, that this term, which is inaccurate and fallacious, is the more to be regretted, because it has favoured the belief that these productions are of a nature *sui generis*, and altogether distinct from that of tumours of undoubted malignancy. A careful and patient examination will, I am satisfied, convince the accurate observer, that these growths essentially possess the structure of compound adventitious cysts, to which the malignant heterologue formations are to be referred. The appearance of fibres, which these tumours present, when a section has been made through them, is produced by the cut edges of the cysts of which the tumours are composed. If any doubt of the existence of this structure remain, after the incised surface has been carefully compared with the corresponding surface of other tumours unquestionably possessing this structure and belonging to the malignant class, it may be removed by the examination of the external surface of a tumour, when carefully detached from the substance of the uterus in which it is imbedded. We may then perceive, not only the nodulous form, but even portions of the cysts; although the intimate mutual adhesion of the

subordinate parts, and the density and compactness of the structure which they constitute, are unfavourable to their complete dissection.

"The anatomical character of these tumours may be still further demonstrated, by reference to a series of specimens, exhibiting the gradations between the most compact uterine scirrhous tubercles and those cases in which, either from original peculiarity of texture or from changes which the tumour, when formed, has undergone, the structure of the tumour is made evident. In my paper on the anatomical characters of some adventitious structures, I have mentioned a few of the circumstances which favour the production of dense, compact, and hard tumours in the substance of the uterus. These circumstances I have stated to be the steady but firm pressure which the substance of the uterus continues to exert upon the new growth; by which very rapid development, and the formation of cells containing fluid, are prevented; yet gradual progressive growth is allowed, and a sufficient supply of nourishment is afforded; whilst the generally quiescent state of the fibres of the uterus, except during parturition, allows development to advance, without modification or interruption.

"Although I believe that these circumstances have considerable influence in giving the peculiar character to scirrhous tubercles of the uterus, it will be right that I should notice the fact, that I have once seen tubercles, possessing precisely the same characters, and about as large as cob-nuts, in the immediate neighbourhood of a uterus in which scirrhous tubercles of the kind usually met with in that organ were present. With regard to these tumours external to the uterus, and apparently only covered by peritoneum and cellular membrane, we have sufficient evidence that the favouring circumstances which I have mentioned are not essential, at least whilst the tumours remain of small size.

"Although we do occasionally meet with adventitious productions developed in the uterus, differing in character from the ordinary scirrhous tubercles in that organ,—as, for example, that form which has been called the gum, gelatinous, or areola cancer, and the fungoid tumour,—nevertheless, the predominance of the one form, and the peculiarities which may frequently, if not always, be observed in those rare instances in which the other tumours before mentioned occur, evince the intimate relation which exists between the character of adventitious growths and the texture in which they are produced. It is on this principle that the pathological importance of thy paper rests; and no cases can more satisfactorily illustrate it, than those which thou hast collected.

In cases where scirrhous tubercles of the uterus have acquired a prodigious size, and yet retain all their characteristic hardness, and exhibit a tendency to that ossific deposit which at times takes place to a most remarkable extent in these tumours, the substance of the uterus itself, though enlarged to about the size which it attains at the sixth or seventh month of pregnancy, and much thickened as well distended, still retains great density and compactness of texture. But in those cases in which the tumours are of a soft texture, as well as of a considerable size, and appear either to have been of rapid growth, or to have undergone those changes which do not permit the tumour to be quiescent, but occasion its breaking down to a greater or less extent, the substance of the uterus is thick, fleshy, more than usually supplied with blood, and comparatively soft. If these conditions occasionally exist in the unimpregnated womb, to a degree which is sufficient to modify the structure and progress of tumours developed in it, we must at once perceive that they must exist to a far greater degree in the impregnated uterus, which receives so large a quantity of blood, and has its laxity and softness of texture so much increased. If, in the unimpregnated uterus, we sometimes find those conditions which promote such a change in the nutrition and development of scirrhous tubercles, that they approach more or less to the character of fungoid, and lose their tendency to continue in a permanently inactive state, we find them also in the gravid, and more especially in the parturient uterus, in conjunction with circumstances which tend to promote their breaking down. These facts, and the practical conclusions to be deduced from them, are, I believe, *for the first time*, pointed out in the cases and observations which thou art now publishing. The changes which the tumours undergo, when they lose their permanent character, and which consist in their softening and partially breaking down, deserve some attention; as they exemplify the process which goes forward in malignant tumours generally. The breaking down of such tumours has been ascribed to ulceration; but the process which they undergo is greatly different from mere ulceration: it consists in the absolute death of a part of the tumour, which loses its colour, becomes opaque and pale, and often of a yellowish or greenish tinge. It then softens, possibly from a new arrangement of its own constituents: but this effect is considerably increased, by the dead part of the tumour now becoming a source of irritation, and consequently occasioning an increase in the quantity of blood, both in the parts of the tumour retaining vitality, and in the neighbouring natural structure. Their inflammation, and sometimes ulceration, ensues: but the more common and remarkable result seems

to be, the death of further portions of the adventitious structure, the softening of which is promoted by the increased afflux of fluids. It is obvious, *that the farther pregnancy has advanced,* the more likely are the compression and movements of the uterus, both before and during parturition, to produce the lesion of the tumours; and the more are these tumours modified in their structure, so as to favour the changes which follow."

CHAPTER IV.

ORGANIC DISEASES OF THE CERVIX AND OS UTERI.

As introductory to the various organic and malignant affections of the inferior portion of the uterus, it is essential to premise, that there may be enlargement and hardness of the whole organ, and especially of its cervix, without malignancy; such being the result of congestion and inflammation.

Congestion of the Uterus.—There can be no doubt that in health, both the uterus and ovaries receive an increased supply of blood at each menstrual period, and that there is a consequent slight and temporary congestion. The occurrence, however, of secretion, quickly removes any chance of its permanency; thus converting into a benefit, what might, under functional derangement, as amenorrhœa, or dysmenorrhœa, have become seriously prejudicial. Pathologists insist much on the danger arising from these monthly repetitions, where there is a tendency only to disease; and explain on this principle the inveteracy of many affections, and the inefficacy of curative means. Professor Simpson, of Edinburgh, (in the Library of Practical Medicine, Vol. iv, p. 323) very ably expounds and defends this view; and although he willingly allows, that under the healthy action of the system, this congestion can scarcely be regarded as morbid, yet that it certainly borders upon disease; and in every slight derangement, either in the function or organization of the uterus, it readily passes into a concretion, which must be looked upon as a diseased state. Thus morbid uterine actions are aggravated, and their removal prevented, by these renewed congestions, and both acute and chronic affections are rendered more permanent, and less amenable to remedies.

In these opinions, to a considerable extent, I concur. Still I think they require qualification. This temporary congestion, which is strictly natural, if followed by menstruation, is only productive of evil, when it is protracted and complicated with acute or chronic metritis: then it is easy to understand that it may become seriously injurious, if prompt and vigorous antiphlogistic treatment be not used. Hitherto, I have thought, and I still regard the opinion as correct, that the regular return of the monthly secretion, is one great cause why many of the organic diseases of the uterus advance so slowly: an opinion confirmed by the fact, that in numerous instances their progress is not conspicuously evident, till menstruation has finally ceased; after which any increased morbid supply of blood may become stationary, or concreted in the uterine tissue. A similar congestion mny result from gradual amenorrhœa, or from the more sudden suspension of the catamenial function. Under such circumstances, organic disease of the uterus has rapidly increased, and the attendant pain, previously very slight, has become distressingly severe. The decline of these evils not occurring till menstruation has been again restored.

The *causes* of morbid uterine congestion, are circumstances producing unusual determination to the organ, without a corresponding amount of secretion, either during, or in the intervals of menstruation, such as, excessive venereal excitement and indulgence, passionate mental emotion, inordinate physical effort, too long riding on horseback, or fatigue in the erect posture, or frequent abortion.

The *local symptoms* are fulness and weight, with dull pain, not increased on pressure, in the hypogastric region; a sense of uneasiness about the neck of the bladder, and at the anus. Occasional hemorrhages, especially after exertion or sexual intercourse. On vaginal examination, the uterus will be found distended with blood, imparting to the finger, a swollen, doughy, œdematous feel. Generally it is prolapsed, the cervix spongy, and the os patulous; but there is rarely tenderness or heat. The speculum shews the injected, shining, and venous colour of the parts; and a slight exudation of blood is frequently seen on the cervix.

There is no affection in which *the constitutional symptoms* vary more than in uterine congestion. Sometimes there is scarcely any complaint, while at others, there are frequent febrile attacks, slight rigors, flushings, headach, nausea, and despondency. The mammæ often painfully sympathise, and become suddenly larger, and tender on pressure. Hysteria is common.

The *treatment* is by no means difficult, nor, indeed, is medical aid often sought, where the congestion occurs only at the menstrual periods; but when it is an attendant, as it most generally is, either on functional or organic uterine disease, it behoves us to treat it with the utmost care.

Rest, in the recumbent posture, is indispensable; without it, the congestion will increase; the natural gravitation of the blood must augment it, independently of the fact, that the uterus is, from its weakened state, predisposed to concretion of blood within its vessels. Frequently the supine posture alone is sufficient to neutralize the bad effects of the congestion. Where further means are necessary, bleeding and scarification of the cervix are superior to all others; and if these are forbidden by the fears or fastidiousness of the patient, a small bleeding from the arm, immediately before, or at the commencement of menstruation, to the extent of four or six ounces, seldom fails to do good. In the interval, the alum hip-bath and a blister on the sacrum are of great service.

Note.—The alum hip-bath may be prepared by adding eight or ten ounces of alum to as much water as is necessary; the temperature should be kept at 96° or 98°, and the patient should remain in it about half an hour. The efficacy will be increased by reducing the temperature. In summer this may be done rapidly, in winter it is needful to be more careful in the reduction of the heat. It is certainly an excellent auxiliary remedy in chronic congestion of the womb.

Acute Metritis. — Acute inflammation of the womb is a rare disease in the unimpregnated state. It may attack either the serous or mucous investments; but the substance or parenchyma of the organ, is its more frequent seat. Its immediate results are œdematous enlargement, and soften-

ing; and if the inflammation be very severe, pus may be infiltrated through some portions of its tissue, or as I have only once seen, a distinct abscess may be formed in the uterine parietes, or in the immediate vicinity of the cervix. In puerperal inflammations, pus is occasionally found in the veins and lymphatics; and when unimpregnated, I have several times known half a pint, or even a larger quantity of pus, to be shut up in the uterine cavity, and afterwards, the obstruction to its escape being removed, it has been suddenly evacuated by the vagina, thus relieving all the symptoms. Such a case I have described at page 190. Lately, I examined a uterus where frequent inflammation of the peritoneal surface had induced effusion of coagulable lymph, by which the ovaries and Fallopian tubes, on both sides, had been glued to the neighbouring parts. Sterility must have been the result. Gangrene is mentioned by Gooch, and one such case I have myself seen, as the result of acute metritis; but it is exceedingly rare, except in connection with puerperal disease. The married are more, but not exclusively, prone to the affection; and in both married and single women it happens most frequently about the period of catamenial decline.

Causes.—Exposure to cold, and consequent suppression of menstruation, stimulating injections and mental emotions, immoderate physical exertions, and sexual excesses, induce the disease.

Symptoms.— In some instances it comes on suddenly and severely; in others, the acute stage is slight and transient, and the affection quickly becomes chronic. Amongst its most prominent symptoms, are pain deep down behind the pubis, or higher in the abdomen, affecting also the back and groins, and aggravated on pressure, micturition, and defecation. The pulse is generally quick, but not always either full or hard; on the contrary, it is sometimes weak, and easily compressed. The skin is usually hot and dry; occasionally, as well as the lower extremities, it is cold. The bowels are mostly constipated; the stomach irritable; the tongue dry and furred; and there is often a disposition to syncope, especially on sitting up. Occasionally I have seen severe headach, with slight delirium, twitching of the tendons and muscles, and alarming collapse, where

the metritis has supervened on catamenial suppression; arising possibly from the retention of what would have been eliminated by menstruation. If the disease occur during a menstrual period, the secretion is usually suddenly checked; if during the interval, the function will be suspended, at least till the malady is cured. There are cases recorded, one of which I lately saw, where acute metritis having come on from wet feet, during menstruation, the inflammation extended to the peritoneum and intestines, and death ensued at the end of fourteen days; active treatment having been too long delayed. On a post-mortem examination, the uterus was found morbidly enlarged and softened. There was pus in the parenchyma, and in the veins, and the intestines were adherent from the deposit of partially organized lymph.

Treatment.—Neither the diagnosis nor the treatment involves difficulty, if the case be early discovered. The lancet must not be omitted in the more formidable attacks, nor except in these, must its use be pushed far; as topical bleeding by leeches on the groins, hypogastric region, or to the os uteri, or *scarifications* of the cervix, are generally requisite to complete the cure. The hip-bath, and a bran poultice over the abdomen, as hot as it can be borne, soothe and materially aid the intentions in view. The bowels must be actively purged, and when this is fully accomplished, if the pain continue, and in paroxysms, opiate injections into the rectum seldom fail to afford relief; and for the constant wearying pain after the attack, a blister may be applied over the hypogastric region. M. Lisfranc recommends general, and is determinately opposed to topical bleeding, in metritis of the unimpregnated womb. The hypothetical prejudices of M. Lisfranc must, in such a case, yield to practical results; and certainly nothing can be more uniformly beneficial than the local abstraction of blood.

Chronic Metritis.—Chronic inflammation of the womb, is an exceedingly frequent disease, often affecting the whole organ, but more commonly confined to the cervix. Sometimes it follows active inflammation, but more usually it comes on slowly, and independently of an acute attack. The symptoms, though of the same kind, differ in degree from those attendant on the for-

mer inflammation. And there is nothing in which knowledge and accuracy are more necessary, than in the diagnosis of the conditions, and especially of the induration, induced by this insidious affection. It may be regarded as the neutral ground of organic uterine disease. To know that the alterations in the texture of the cervix are still of a simple kind, after inflammation protracted through many months, or even a longer period, to feel certain, that a favourable prognosis may be justly given, require close and extended observation. But I am certain that for a much longer time than is generally supposed, a cure may be fairly anticipated; and every day's experience convinces me, that assiduous treatment would accomplish far more than many practitioners venture even to hope, much less confidently to expect. Ulceration, suppuration, and indurated enlargement of the substance of the uterus generally, and especially of its neck, may ensue from chronic inflammation. Ulceration will meet with attention hereafter, suppuration has already been discussed, and the latter result deserves especial notice.

I had lately the opportunity of examining a uterus, which had for many years been the seat of protracted, and somewhat severe attacks of acute and chronic inflammation, and about the real condition of which I had, during the life of the patient, many doubts. The os was patulous, and the cervix and body of the uterus much larger than natural; but on making sections of different parts of it, there was no distinct scirrhous hardness, and certainly no development of cystiform malignant structure. Still there can be no doubt that change of organization takes place, and that conversion into real uterine scirrhus is the occasional result of insidious chronic inflammation. Such a fact should be an incentive to watchful and persevering treatment.

The *symptoms* of chronic metritis are sufficiently distinct, if carefully investigated. That there is a uterus at all, is, in perfect health, scarcely known by any indications marking its locality. But when the disease in question is fully established, its site will be pointed out by unusual sensations of weight and uneasiness, occasionally amounting to actual pain. Heat about the cervix vesicæ, and a feeling of dragging and

descent, prove the altered condition of the affected organ. Unusual pressure, anteriorly or laterally, or on the rectum, evidence its unnatural position and bearing. The discharges accompanying the affection vary. Sometimes a transparent mucus, like the natural secretion in excess, or a more viscid and opaque discharge; at others, a muco-purulent fluid, mixed occasionally with blood, and more rarely, considerable hemorrhage, mark the continuance of the malady.

It is after the persistence of these symptoms for some weeks or months, that the sallow countenance, the impaired appetite and digestion, abdominal pain, slight emaciation, and a gradual loss of strength and appetite, excite apprehension, and an examination being solicited, is generally readily granted. The uterus is almost invariably enlarged, and often considerably indurated, and on balancing it on the finger, its increased weight is evident. The cervix, from infiltration of lymph, is frequently hypertrophied; its mucous follicles being filled with fibrous effusion, are prominent, and project unduly beyond the surface. Such a state may be regarded as entirely topical, and perhaps as indicative of the commencement of cancerous disease; but it would probably be more correct to view it, as part of the general consequences of the metritis, which has affected the whole uterus. This peculiarly elevated state of the uterine mucous follicles has been denominated the *granular* inflammation of the cervix, a term also used, when the mucous surface of the neck is studded with the effused lymph, in the form of red or highly-coloured granulations, instead of its being infiltrated into the follicles or crypts. The cervix is more bulky and doughy in feel, and the os uteri is found to be softer, more widely open than natural, and often in some part of the aperture, there is tenderness or pain, with a roughness amounting almost to abrasion. On many occasions I have used the speculum, having had my fears excited, and usually there has been increased redness, and the blood vessels have been more numerous. In two instances lately, the extremely distinct and strong pulsation of the arteries of the cervix surprised me. If it be asked whether such a state frequently precedes scirrhous deposits or ulceration, I would reply, while there can be no hesitation that malignant

disorganization does follow such an affection, yet that in general the induration and bulk of the cervix, and of the uterus generally, is amenable to remedies; and if laying aside every preconceived opinion, the treatment presently to be enjoined, be carefully pursued, a favourable result may fairly be expected. Doubtless, an intractable chronic inflammation of the neck of the uterus, especially in a strumous patient, is a very anxious condition; and if malignant disease be hereditary, if a mother, or sister, or other near relatives, have been destroyed by cancer, the prognosis should be a cautious one; but if the individual has been previously healthy, and of healthy parentage, such an assemblage of morbid symptoms will generally be recovered from.

Treatment.—So long as there is increased activity, either of the general, and especially of the uterine circulation, evidenced by local pain and sensibility, topical depletion ought to be employed, cupping in the loins, and leeches to the perineum, and particularly to the cervix itself, and scarification of the latter part, are most useful. The hip-bath, as recommended in dysmenorrhœa, mild saline laxatives, and a milk or unstimulating, yet nutritious diet, the recumbent position, abstinence from sexual intercourse, country or sea air, and freedom from every kind of excitement, are essential. It is scarcely necessary to observe, that all the concomitant symptoms must be met by appropriate remedies; and it must not be expected, that the uterine enlargement, and the induration of the cervix, will pass away, till this protracted inflammation of its substance has ceased to exist. When the increased quantity of blood, which has so long circulated through the vessels of the uterine parenchyma, is diverted to its natural channels, then, but not till then, will the enlargement of this important viscus gradually, but very slowly, disappear. Nor can it be too strongly urged that iodine, mercury, conium, lime, or arsenic, will exercise no beneficial influence in exciting absorption, till local depletion, aided by other means here pointed out, have lessened or subdued the existing imflammation. It will occur to almost every practitioner, how often he has verified this remark in the rapidly beneficial effect in other local inflammations, of well-timed general or topical depletion. In some dropsical affec-

tions, one bleeding seems at once to stimulate the absorbents, by removing the existing inflammatory action, these vessels having till then been uninfluenced by mercurial and other stimulant medicines.

CANCER OF THE UTERUS.

DEFINITION.—*A disease sometimes hereditary, almost uniformly fatal, and most commonly, but by no means invariably, occurring at the period of catamenial decline, or at a more advanced age. Its especial seat is the glandular apparatus of the cervix, commencing as a deposit of a peculiar substance, with induration. Sooner or later, ulceration occurs, after which it contaminates, transforms, or destroys surrounding parts, displaying a remarkable tendency to the production of fungoid growths in the seat of the ulceration. It is generally attended by cachexia and emaciation, and there is often considerable, and not unfrequently intense, pain.*

A volume of no inconsiderable size might be filled with an abridged detail of what has been written on cancerous affections of the womb; and it would ill become me to underrate, either the truth or value of many of these contributions. If, therefore with a view to avoid unnecessary prolixity, I may quote but little, and may therefore seem to appreciate these productions insufficiently, let it be understood, that the apparent want of respect really arises from my having seen the disease so frequently, that the views which I entertain, particularly of the incipient stage, must almost of necessity be expressed and classified, in a method somewhat peculiar to myself.

Two points, in reference to this most direful malady, may be regarded as fully established:

First, *That it is malignant*, and

Second, *That its especial seat is the neck of the uterus.*

There is a question, however, which may perhaps admit of doubt, viz.,

Whether prevention of further mischief, presuming the disease to be in its incipient stage, or a cure of that which already exists, may be reasonably hoped for?

And before entering more fully into the history and symptoms, I shall briefly pursue this most interesting inquiry, commencing my observations by reiterating an opinion expressed by myself (in Guy's Hospital Reports, January 1836, p. 153), "that hard tumours of the cervix, and indurated puckering of the edges of the os (conditions which frequently terminate in ulceration), may be melted down and cured by the topical application of iodine, aided by the recumbent posture, abstinence from sexual intercourse, cupping on the loins, a mild, unstimulating, and often a milk diet, gentle aperients, narcotic injections into the vagina, and the almost daily use of the warm hip-bath."

It has been doubted whether I have sufficiently defined the nature of these hard tumours; whether, in fact, they are to be regarded as cancerous, or merely as congestions and ulcerations, which not being malignant, are capable of cure. I believed at the time I wrote these observations, and I still adhere to the opinion, that they were malignant tumours; but that their full development was prevented, at this early period, by the treatment pursued: for I have long been convinced, that cancer of the womb may be arrested in its early stages by the removal of the pathological state, of which it is the consequence. At page 145 of the first volume of the Reports, the following observations occur:—"To suppose, or to call these hard tumours scirrhous, cancerous, or malignant, would in some minds instantly excite prejudice. If I am censured, then, for using the term 'hard,' I justify myself by saying, that it is the best and least controvertible expression with which I am acquainted. It is scarcely possible to avoid attaching a precise, and perhaps an erroneous idea, to such terms as 'scirrhous,' 'cancerous,' or 'tubercular indurations.' The denomination 'hard tumour,' has this advantage—it assumes only a degree of hardness, or firmness, beyond that which is healthy and natural, leaving the precise cause of such hardness to be decided by the result of the treatment, or to the further progress of the disease. Such a condition may be the effect of chronic inflammation only; or, if of malignant character, it may yet be very distant from that degree of malignancy which will resist all treatment.

"Nevertheless, I am persuaded, if many of these structural changes (in the os and cervix) were examined without reference to their treatment at all, and especially by iodine, they would be pronounced to be scirrhous or malignant alterations. I am not, however, pertinacious on this point: it is not a matter of practical moment; although my conviction decidedly is, that these changes, whatever may have been their precise character at the commencement of the iodine treatment, would, without that treatment, have proceeded on to ulceration, and thus have left the patients with but a slight chance of recovery.

"Until I employed the iodine, especially in the forms of ointment and tincture, directly to the diseased growths, and the treatment already pointed out, I saw these indurations gradually getting worse: I perceived them slowly softening; till at length their surfaces were broken, and ulceration occurred. It is needless to say, that, after this event, constant irritation, fetid and sanious discharges, and occasional hemorrhages, sooner or latter induced a fatal result. I have examined many of these structural alterations with great care, both by the finger and the speculum; and, after repeated investigations, extending over several years, I am not disposed to think less favourably of the treatment."

In these views Duparcque and Montgomery fully coincide, and I regard it as of great moment, that in a matter so truly important as the prophylactic treatment of cancer of the womb, the experience of these distinguished physicians should coincide with my own. The former has arrived at the following conclusions:—

1. "The greater part of confirmed cancers of the womb succeed to congestions and ulcerations capable of being cured; we may then, to a certain degree, prevent the development of these maladies by properly treating, at an early period, the primary pathological states of which they are the consequence.

2. "Once fully developed, confirmed cancers are, at present, beyond the resources of medicine: even surgical treatment, which offers some chance when the disease is limited to the neck of the uterus, is of no service when the entire organ is affected.

3. "In all cases, a well-directed palliative treatment of symptoms will arrest the progress of the complaint; render it in some degree stationary, and relieve the most painful symptoms and the gravest 'accidents,' or at least so far mitigate them as to render less painful the approach of death.

4. "All the cases of extirpation which have been published, were so at a period too near the time of the operation (four, five, or six months at most,) for us to judge fairly of it. It is probable that a greater delay would have afforded even less encouragement."

Dr. Montgomery (Dublin Journal, January 1842, p. 433) thus expresses himself:—"The disease of cancer uteri is too universally recognized as one of the most frightful scourges of humanity, to render it necessary for me to attempt any description of its horrors, or to impress on even the most junior of my readers, the importance of closely studying the phenomena of an affection hitherto found so utterly intractable by every known means, and which, when once fully established, entails upon the unhappy sufferer, one unbroken train of miseries, from which, it has been truly said, 'temporary relief can be found only in opium, and permanent rest only in the grave.' But I am perfectly convinced, from many years' observation, that something may be done to stem, at its source, the torrent of agonies that will otherwise overwhelm the patient; nay, I firmly believe it may, in many instances, be altogether turned aside, and the victim be rescued from the sad fate impending over her.

"I am satisfied, that there is a stage of cancer uteri which precedes the two usually described by authors; a stage, in which the nature of the disease may be detected, its further progress arrested, and its germs destroyed, and the reason why this stage is not more generally recognized is, that the accompanying symptoms are frequently so slight as to attract very little the attention of the patient, and thus are suffered to remain without treatment, until a profuse hemorrhage, or some violent fit of pain sounds the alarm, and then, on examination, the disease is found to have passed into its second stage; the surrounding tissues are indurated and consolidated with the organ concerned, and no human means hitherto discovered can do more than

blunt the thorns thickly strewn along the path, which the sufferer must tread, to 'the house appointed for all living.'"

It may not be without its advantages to pursue this part of the subject further, and to state as exactly as possible, in what this curable stage really consists, and how long it lasts. This is clearly not only the most novel, but the most useful portion of the history of cancer; and if the facts to be adduced shall aid in the establishment of a correct pathology, and of a prompt and efficient treatment, the labour it may cost will have been well bestowed.

Authors entertain various opinions of what may be regarded as the first stage of cancer of the neck of the womb; but all agree that softening, abrasion, and ulceration of the indurated tuberculous deposits, place the disease beyond the reach of cure. Thus, the ground for hopeful treatment, is strictly limited.

Dr. Montgomery is fully satisfied, "that in the great majority of instances, the first discoverable morbid change which is the forerunner of cancerous affections of the uterus, takes place in and around the muciparous glandulæ, or vesicles, sometimes called the ova nabothi, which exist in such numbers in the cervix and margin of the os uteri; these become indurated by the deposition of scirrhous matter around them, and by the thickening of their coats, in consequence of which they feel at *first* almost like grains of shot or gravel, under the mucous membrane; afterwards, when they have acquired greater volume by further increase of the morbid action, they give to the part the unequal, bumpy, or knobbed condition, like the ends of one's fingers drawn close together. When this second stage (usually described by writers as the first) is established, all means hitherto devised have failed in producing any permanent beneficial effect."

M. Duparcque is evidently somewhat in advance of this opinion, regarding "the greater part of confirmed cancers of the womb as succeeding to congestions and ulcerations *(doubtless with induration)*, capable of being cured." In this passage, M. Duparcque must be understood as maintaining the frequent curability of those congestions and ulcerations, which as they

immediately precede, must be taken to be the first stage of the malady.

With both these writers, and especially with the clear and practical observations of Dr. Montgomery, my own experience coincides. There is a vagueness about the "congestions and ulcerations" of M. Duparcque, which may perplex. It is somewhat singular, that in scarcely any of the treatises on cancer within my knowledge, is there any positive and direct allusion to a curable stage. Every friend to his species, therefore, must desire that these opinions may be sustained; and there seems good reason to hope that they will, as the views themselves are supported by facts, and there is nothing empirical in the method of treatment. It would exceed the scope of this work, to enter largely into controversial views of the specific nature of malignant disease; and it would be unprofitable, in the present state of our knowledge, to attempt to determine, whether in the first stage of cancer of the cervix uteri, there is more than the results of chronic inflammation. At all events, no evil can arise from sentiments which shall induce prompt and powerful means of relief, based on illustrative and confirmatory cases.

It is readily admitted, that this prophylactic treatment involves the possibility of a recognition of the disease prior to the commencement of the active stage. Of this, where early examination is practised, I have no doubt; and M. Littre believes that the development of the poison might, in some instances, be warded off by a change of climate and food, and by the administration of chalybeate and mineral water. Nor can it, perhaps, be doubtful, that some of the tumours referred to by M. Recamier, and others, were really cancerous; and if reliance be placed on the fact of their removal, it follows that in certain singular cases, pressure, aided by iodine, mercury, and other remedies, did fully accomplish a cure.

Although it may be somewhat difficult to appreciate the exact extent and duration of this favourable stage, it will be easily perceived when the disease has travelled beyond its limits. I am aware it may be urged against the reality of the cure, or the arrest of the malady; that the incipient stage of cancer is occasionally protracted to several years, even where treatment

is entirely neglected; but this can scarcely impugn the value of the measures now urged, as during any portion of the time the disease is thus inactive and stationary, it remains without diminution. But it is not so where powerful and persevering treatment is in efficient operation; in such case the disease is retrograding; the congestion, puckering, and induration, and the morbid state of the mucous linings are gradually and perceptibly lessening, facts satisfactorily proved by repeated examinations with the finger and the speculum. Doubtless there are many circumstances which will modify the prospect of success: these will, of course, attract notice when we come to the prognosis.

The cases published by Dr. Montgomery, of which an abridged detail will be given, and my own, will probably fully substantiate these and other important positions.

Cancer is not often a disease of the young; although some years ago I attended a case with Dr. Pierce, where the patient had not reached her twentieth year. Boivin and Dugés, in 409 examples, found twelve under twenty years of age; 83 between twenty and thirty; 102 between thirty and forty; 106 between forty and fifty-five; and 95 between forty-five and fifty. Mr. Carmichael saw a case at twenty-one years of age; and Wigaud adduces one of scirrhous uterus at fourteen years.

The progress of cancer of the womb is remarkably diversified; not only during the incipient stages, but even after the commencement of ulceration. In women of dark complexion, the malady advances for the most part slowly; while in the fair and ruddy, where the capillary circulation is vigorous, its various stages are more quickly passed through, and death often occurs in a few months. A severe illness, or distress of mind, frequently gives a sudden impulse to the disease; and one cannot fail to be struck with the decided alteration for the worse, which so commonly and quickly succeeds events of this kind.

Formerly, it was a matter of doubt whether pregnancy was a possible complication of cancer; now, not only the fact itself, but the very injurious, and often fatal, effects of pregnancy, so complicated, are fully acknowledged. To say that the mind and temper exert a marked influence over the progress of cancer,

will not excite surprise; and certainly, active and painful intellectual efforts, and an easily excited and irritable disposition, and a proneness to constant thinking about the disease, are sure to increase its activity. Sometimes, although far more frequently the reverse is the case, the complete decline of the catamenial function, after months and years of irregularity, appears to suspend the further advance of the malady. Nor are there wanting examples, where, independently of any direct or appreciable causes, its progress is arrested. Unhappily, in the generality of instances, these are but temporary respites, although in the early examples adduced by Dr. Montgomery, and myself, the delay has been sufficiently long to induce the hope, under continued care and treatment, of its permanent duration. I am unwilling to lay more stress on this curable stage than the facts may fairly warrant, but I cannot resist the conviction, whatever pathology of cancer may be adopted, that it is our duty to oppose the influence of preconceived and prejudiced opinions of its absolute incurability, and at least to allow the fullest and most persevering trial to the means employed.

Early Symptoms.—Sharp, and for a long time, comparatively transient pains in the back and loins, coursing along the crests of the ilia, and terminating in the groins, or shooting down the fronts of the thighs. Sometimes the pain seems to pass along the sciatic nerve, and I have known partial paralysis induced by it.

It must be recollected, that it is not the occasional occurrence, but the frequent return, and eventually the *persistence* of, these pains, which excite and fix the patient's attention.

Doubtless, in some instances, menstruation is early deranged, but not commonly; nor is there as a general attendant, at least early in the disease, either leucorrhœal, or other discharges. Occasionally there are slight and sudden hemorrhages, for which a true or supposed cause is generally found, in irregular menstruation, or in some over exertion. Irritation of the bladder, and more rarely dysuria, are among the early symptoms; and sometimes pain during intercourse, admonishes the patient that all is not right.

Emaciation, and a discoloured skin, impaired sleep and appe-

tite, and painful expression of face, belong for the most part to a later period, and will be hereafter described.

Examination per Vaginam. — As the disease consists in an addition of new, although morbid material, the local symptoms must be important, even in the incipient periods; and so far as my observations have gone, the os and cervix present, when thus affected, three kinds of induration:

1. *The rima, or circumference of the uterine aperture, may be wholly, or only partially, hardened and puckered.*

2. *The cervix may be hard throughout its whole structure;* or

3. *Hard tumours may be deposited in any portion of it.*

I am quite aware that tact, and a somewhat extensive knowledge of the normal or healthy varieties of these parts, are necessary for accurate diagnosis. The practitioner, therefore, will do well to remember, that, independently of disease, there may be,

(1) *A large and firm cervix.*

(2) *A capacious, patulous, and firm os;* and

(3) *An os fissured, and unequally hard.*

I need scarcely occupy any time in explaining how it is that structural lesions of these parts of the uterus are so much more dangerous than similar affections of the walls or body. The walls are simply containing parts, their structure being adapted to the function they have to perform. With the exception of the mucous tunic, or lining of the cavity of the uterus, which secretes the catamenia and the thin fluid lubricating its sides, the tissues composing the uterine walls are only called into healthy functional activity during utero-gestation and parturition: in the former state, their fibres are developed, and thrown into more distinct fasciculi or bands; and in colour, elasticity, and strength, they then closely resemble muscular substance in other parts.

The structure and functions of the cervix present points of striking contrast in all these particulars: for instance, the substance of the cervix is more compact, welted, and condensed, than any other part of the organ; and, for the purpose of affording support to the superincumbent viscus, it is intimately connected with the vagina, rectum, and bladder, especially with the

vesical neck. The cervix possesses, also, sebaceous or glandular follicles, whose office consists in the secretion of adhesive mucus, for the lubrication of the parts during the unimpregnated condition, and for sealing the lips of the os after conception. To the additional circumstances, then, of its compact substance, its confined situation, and its glandular follicles, constituting, as a whole, an elaborate and complicated structure, we may attribute the increased danger and rapid course of its organic lesions. A tumour of large size, affecting the uterine walls, finds space for its bulk without seriously encroaching on any neighbouring viscus; and if it once rise above the brim, like a pregnant uterus, it will obtain accommodation in the abdominal cavity, without any formidable displacement of the intestines.

It is not so, however, where there is a tumour, or general induration of the cervix. The bladder, the urethra, the rectum, and the vagina are soon pressed upon, and functionally deranged; irritation is excited; and an increased supply of blood is quickly furnished to parts, whose safety would have been best consulted by a diminution of their natural quantity. In addition, also, allusion may be made to the injurious effects on the os and cervix, in such a state, of sexual intercourse, and of acrimonious discharges.

Causes.—Much of the controversy which has existed on the etiology of cancer, has been settled by the accurate observations of modern pathologists. Whether, for instance, cancer did not depend on a specific cause, and might not be transmitted from one person to another by inoculation, or even by infection, was formerly a matter of doubt; and although the affirmative of the proposition was generally assented to, yet of late years, it has been experimentally disproved; the ichorous discharge of cancerous sores having been placed under the skin by inoculation, without any specific results. Dupuytren indeed introduced cancerous structure into the stomachs of animals, and injected the matter from cancerous ulcers into their veins, with no other result, than irritation. Nor, although several such cases have fallen under my notice, have I ever known any specific ulceration arise from sexual intercourse with women who had open cancer of the cervix uteri.

Predisposing Causes.—All circumstances by which the constitution can be prepared for the influence of the direct causes of the disease, belong to this class. The records of Guy's Hospital, and my own practice prove, that from thirty to fifty-five years of age is the period most favourable for the development of uterine cancer. From the same sources, I am satisfied, that although no temperament is exempted, yet that women of high colour and sanguineous constitution are most frequently its subjects. Mr. Lever has numerically proved this position.

That the married are more prone to the malady than single women, and even than widows, does not admit of doubt. Mental distress, however the connection of cause and effect may be explained, appears to me to favour its development; and I think it might be proved, that its attacks are more rare in classes of society where pecuniary embarrassment and its consequent anxieties are infrequent. Athough the data are yet incomplete, and therefore uncertain, it must, I fear, be assumed, that the disease is frequently hereditary. That uterine cancer "runs in families," is a statement whose truth seems to be received without hesitation or inquiry. So far as the opinion shall prompt to a careful employment of prophylactic means, it can do no harm, but may perhaps be highly beneficial. I was lately informed, by a practitioner on whose veracity I could fully rely, that he had seen, in a newly born infant, malignant cancerous disease of the scrotum, the mother at the time being the subject of mammary carcinoma.

Insufficient food and clothing, especially during the inclemency of winter, unhealthy and exhausting occupations, and impure air, have been enumerated as predisposing causes; but it may be fairly doubted whether they exert any specific predisposing influence.

Exciting Causes.—That mechanical violence, as blows or falls, or long-continued and inordinate local pressure, may produce cancerous disease, seems to be almost incontrovertible. Hence it has been attempted to show, that the cervix uteri, from its exposure to injury in parturition and contusion in sexual intercourse, would of necessity be the most frequent seat of the disease, although virgins, spinsters, and widows, are frequent sufferers.

Still we can scarcely suppose that these excitements do more than bring into activity the otherwise latent predisposition, seeing that in the vast majority of instances of blows or falls, or other physical injuries, no such fearful result ensues. In uterine cancer, it is undeniable that many women attribute its first painful indications to mischief done during labour; and yet so many instances occur in virgins, in women who have long been widows, and in those far advanced in life, where the natural use of the organ must almost have ceased, that we must admit such exciting causes with hesitation. Irritation and inflammation may, and do certainly hasten the development of cancer in persons predisposed to it. I lately saw a case where probably, judging from the previous good health, the disease would never have shown itself, had it not been for repeated inflammation of the cervix, produced by vicious sexual intercourse, and the frequent employment of highly stimulant injections, used to prevent conception.

After all which can be adduced on the etiology of cancer of the uterus, it must be allowed, that in many instances, its presumed causes exist very long and with great intensity, without any subsequent manifestation of the disease. Thus irritation and inflammation of the cervix produce simple induration, a state often mistaken for cancer, but easily distinguished from it by its inactivity alone: scirrhus having an inherent tendency to increase and grow, and to assimilate to its own nature any other structures which it may invade; a power not belonging to simple induration. The converse of this opinion is equally true, viz., that some of the most formidable attacks of cancer have not been preceded by even one of its supposed causes. Individual predisposition must therefore be conceded; but in what this predisposition really consists, whether in a particular condition of the blood, or in some other undefined derangement of structure, is at present unknown.

Pathology.—Opinions of the nature of cancer must vary in accordance with the more or less extensive views which may be adopted. If it be believed, that its materials exist in the blood, as well as in the component or molecular structure of organs, the locality only being undetermined, the affection must be

without any other limit, than that which includes the entire organization. If, on the other hand, it be regarded as a disease of glandular structure exclusively, its ravages will be confined within narrower limits.

By the disciples of Broussais, chronic inflammation is viewed as its essential condition. By others it is limited entirely to the constitution, topical circumstances being considered not at all influential. It has been said to depend on depravation of the nervous fluid, on an enlarged and varicose condition of the veins; and by Mr. Carmichael, its origin has been ascribed to the generation of hydatids. These peculiar and exclusive views are certainly not calculated to inspire any confidence. Velpeau, Andral, Cruveilhier, Berard, and Carswell, are decided advocates, with certain modifications, of the cancerous vitiation of the blood itself; and there is no doubt, that carcinomatous and encephaloid matter has been found in the interior of both veins and arteries. I cannot, however, after a careful perusal of all the reported cases of this kind, discover any proof that these cancerous products existed in the blood or its vessels alone; in other words, independently of, or previously to, the development of the disease in the tissue of the solids. Dr. Carswell does, notwithstanding, affirm, that the blood is the sole primary seat, and that he has seen cases, where the venous blood alone was contaminated by the disease. Such instances have not fallen within my observation; and certainly, till the statement is supported by the fullest and most accurate records of the examples themselves, it will fail to command extensive assent. Dr. Hodgkin, without explaining the method of their origin, contends for the existence of compound serous cysts as the basis of malignant structure. There are numerous corroborative illustrations of this opinion in the Museum of Guy's Hospital. Müller, the celebrated German pathologist, has apparently established the fact, that the microscopical elements of cancerous growths and their mode of propagation, are not only similar to the growth and arrangement of benignant tumours, but of the natural structure of the fœtus. Hence he infers, that carcinoma is not a malignant or heterologous formation, forgetting, probably, as Dr. Walshe acutely remarks, that

such identity simply shows that the heterologous character is produced not by the nature, but by the mode of combination and arrangement of the ultimate physical elements of the diseased growth.

From all which has yet been observed and settled as true, it may, I think, be assumed, that the most frequent primary locality of cancer is not in the blood, but in the molecular structure of organized tissues or parenchymata, and that the deposit of the morbid material is dependent on perverted nutrition or secretion.

Diagnosis.—The distinction between malignant affections of the uterus, and those of simple character, is not always easily made. There are cases of engorgement, hypertrophy, and induration, in which the finger introduced into the vagina discovers an increase of volume, either in the entire uterus, the cervix, or in the body only. Now as these are changes induced by cancer, and as there may be slight or very severe pain in all the affections, it is important to point out the diagnostic characters.

Simple engorgement, hypertrophy, and induration, are less hard, of more uniform surface, often unnaturally warm, and tender on pressure, whatever part may be affected; while even in the early stages of cancer, the surface is irregular and rough, free from tenderness; and there is often a weight, coldness, and stony induration.

In cancer, and the simpler affections already mentioned, there is a marked difference in the mucous membrane, covering the cervix. In the former it is of a dull white, or slightly grey, colour; in the latter it is much redder and more vascular, and often morbidly sensitive.

Hypertrophy, or common induration, may affect either the body or cervix separately, or at the same time; but never in so isolated a form as to give rise to distinct and separated nodules of tuberculous induration, like carcinoma. Scirrhus developes itself very slowly; the former affections rapidly; frequently reaching a size in six or eight weeks, which scirrhus would require as many months to attain.

Simple enlargements are generally easily cured by the means

already pointed out; while scirrhus, in its earliest formation, requires a much longer period. Common induration is nearly stationary. Malignant disease, although slowly, is gradually progressive, and by affecting neighbouring tissues, transforms them; and sooner or later, by their consolidation, destroys the natural mobility of the uterus.

When softening and breaking down have occurred in the cancerous mass, it may at first be mistaken for simple ulceration of the cervix, for corroding ulcer, or for chancre. The history, the symptoms, and above all, the touch and the speculum will remove every perplexity. The peculiarities of carcinoma; its primary induration; its affection of surrounding parts; its fungoid growth in the seat of the ulceration; its peculiar pain; the accompanying immobility of the uterus; the fœtor of the discharges; the hemorrhages; the cachexia and emaciation; with many other particulars too well understood to require any mention, will prove sufficiently diagnostic.

Prognosis and Course of the Disease.—The exact prognosis depends very much on the stage of the disease, and on the belief of its curability. Nor is it unimportant, however generally unfavourable may be the opinion, that it shall be most cautiously communicated. An abrupt expression, involving utter hopelessness of removal, would, in many instances, exasperate the malady, and by prostration of hope and energy hasten its progress. It is a disease capable of being arrested, if not cured, in its earliest periods; and certainly, where the affection is not fully developed, so much has been done, and so much more may probably be accomplished, that no idea of its being cancerous or incurable should escape the lips of the practitioner. And yet it must not be forgotten, that there are exceptions to the usual slow progress of scirrhus uteri. In such, the topical induration is early painful, hemorrhages commence soon, softening and extension of the diseased growths are quickly evident, the general health decays; and carcinomatous ulceration follows with unusual rapidity. It is clear in such instances there is no hope; and our duties consist in soothing pain, and in affording every solacing alleviation. It would be difficult to mention with accuracy, the time which may elapse prior to a fatal termination.

The assiduous early employment of prophylactic measures may, if it does not entirely arrest the malady, protract it through several years. The mean duration of uterine cancer is not as yet determined. Mr. Lever thinks that it does not exceed twenty months; and if this calculation include only the second or ulcerated stage, I concur in its general accuracy; but it is certainly incorrect, if the early period be included. The final termination of cancer is sometimes exceedingly sudden and unexpected. Even before ulceration has commenced, and without any or severe pain having been suffered, the nutritive functions become impaired, the tissues grow soft and flaccid, and before there has been time for emaciation, the strength rapidly fails, and death occurs. In these cases, although the connection between such effects, and the peculiar and deadly influence of malignant disease may not be satisfactorily established and defined, yet we can scarcely be deemed too credulous for believing in its existence. A similar observation is more true of advanced carcinoma. I lately treated a case with Mr. Coleby of the Borough, where the malignant ulceration commencing in the indurated deposit of the urethra, extended into the vagina; the aggravated pain was greatly alleviated by belladonna and conium, used topically; the appetite and health were so far improved, and the ravages of the disease so much checked for a considerable time, as to inspire the hope that a respite of at least many months might have been obtained. But just as these expectations were at their height, agonising pain suddenly and inexplicably recurred, and the patient sank in less than a week. The possibility of similar events should not be excluded from even the most favourable prognosis. Temporary and partial failures of strength are by no means rare; and whilst they demand vigorous, tonic, and stimulant treatment, need not excite the fears of the practitioner, except they are accompanied by greatly aggravated local pain. So far as my experience has extended, cancer of the uterus has certainly not been an invariably painful disease. I do not mean to deny, where pain does at all exist, that it is not generally at some period exceedingly severe; the purport of my observation is to mark the fact, that there are cases throughout whose whole course there is

scarcely any pain at all, and that in such opiates are rarely required.

Prophylactic and curative means to be employed in the early stage.—The curability of cancer has been, and still is, a subject of controversy which facts alone can determine. Extreme opinions are rarely true, and generally dangerous. A remark peculiarly applicable to uterine carcinoma.

It has been already stated that scirrhous or hard tumours of the womb, are sometimes cured or become innocuous, by altered nutrition; the indurated masses being deprived of their softer, cellular tissue, and being converted into cartilaginous, cretaceous, or calcareous concretions. No reasoning can overturn facts; and as preparations demonstrative of these fortunate changes, exist in our museums, controversy and scepticism are thus far at an end. But it is not so with the supposed or real cures by surgical or medical treatment. Some reject all evidence of this kind, by prejudging the question controverted. If the disease has disappeared, it could not be cancer, because, according to them, cancer is a malignant affection never cured. Other writers hold a directly opposite theory. M. Bouillaud says, that he sees no difficulty in the cure of cancer, because erroneously enough he regards it merely as an inflammatory induration; and M. Breschet, adopting the fanciful notions of the illustrious Bichat, regards the disease as resulting from some error in the "organic sensibility," and believes that such a consequence is so unimportant, that it may be readily removed. The mean of such opinions will probably include the truth: and while I believe, that confirmed carcinoma of the uterus has never been cured, either by partial ablation or by medicine, I cannot resist the conviction, that much may be done by a very early, well-sustained, and untiring prophylactic management. But before entering fully on the treatment, it may not be without advantage to describe, as accurately as possible, those topical conditions of the uterus which alone justify the belief, that the disease is still in its incipient state, and therefore within the reach of curative measures.

The muciparous glands, in the interior of the cervix, may be hard, and of the size of small shot, and pressure on them may

induce pain, and yet, if the mucous membrane covering them be not ulcerated, a restoration to a healthy state may, by proper treatment, be fairly hoped for. I am aware that, in a slight degree, such a state of the muciparous glands may occasionally exist, as the result of irritation, induced by various causes, as painful and excessive intercourse, dysmenorrhœa, &c.; but the effect is then generally transient, and unaccompanied by the more permanent symptoms already mentioned. These little indurated glands are often associated with a hard and fissured state of the os, and an enlarged and hard cervix. The turgescence of the interior of the neck, and its deep flesh-colour, both within and externally, are well marked. The uterus is usually increased in bulk, and feels altogether thicker and more solid.

If the vagina is at all knotted and indurated; if the cervix is united to the vagina by hardened mucous membrane, and cannot be moved freely; if the uterus generally is fixed and consolidated with the neighbouring organs, or if there be abrasion, softening, or commencing ulceration; then the case wears a very unfavourable, but not an entirely hopeless aspect, and a most cautious prognosis must be given.

This first stage is often very slow, and it is one of its accompanying evils, that a long period must elapse, even where the treatment is successful, before it is possible to give a decidedly favourable prognosis. It is unfortunate that the symptoms of this incipient state are so slight; were they more severe, earlier attention would be secured. The pains are not constant; the appetite, digestion, and sleep are not much interfered with; and therefore the affection is disregarded. But after a time, intercouse becomes painful, being often followed by a discharge of blood (lasting some times only for an hour or two; at others, a slight draining will continue for the following day); there is more constant or periodical uneasiness centrally in the pelvis, irritability of bladder, and failure of general health. These symptoms excite apprehension, and lead to the discovery of the disease.

Prior to the commencement of treatment, the patient should be convinced that self-denial must be long practised; that her

diet is to consist exclusively of simple nutritious and non-stimulant materials; that she must abstain from sexual intercourse, and maintain long and constantly, or nearly so, the recumbent posture, and be especially cautious to avoid mental emotion and effort; physical exertion being entirely forbidden.

It must never be forgotten, that the object of all treatment in uterine cancer is, *first*, to prevent excitement and irritation, the almost certain forerunners of progressive advancement; *second*, by topical remedies, applied directly to the diseased parts, to arrest further development of the poison, and to destroy or neutralize that which already exists; and, *third*, to sustain and augment the vigour of the system, by judicious attention to the digestive functions, and by suitable diet, pure air, and regulated exercise. I need scarcely urge especial attention in the early stage to the local treatment; it is here that great recent improvement has taken place.

Repose.—Rest in the recumbent posture is absolutely indispensable. Not in bed, except during the cold of winter, when its efficacy is much increased by the higher temperature. A well stuffed couch should be chosen, and to this the patient should be strictly confined. If the apartments will permit it, she may be wheeled about, or if there are grounds contiguous to the house, she may, during fine and warm weather, be drawn round them. I despair of advantage from any treatment, where this point is not fully secured. Still there are exceptions even to this rule; and where digestion is seriously impaired by absolute rest, where constipation ensues, where amenorrhœa, nervousness, and want of sleep are its consequences, some modified plan must be adopted.

A simple and unstimulating diet is essential, especially where strict repose is enjoined. Wine and spirituous liquors are to be interdicted, except when medically ordered; animal food once daily, and in some instances on alternate days, is sufficient. Without this scrupulous attention to diet, dyspepsia and congestion of the various viscera will occur. Mild ale or porter may be allowed, and an occasional draught of hot water after a meal or before going to bed, will aid digestion and induce

sleep. Milk in any form is excellent, where it agrees. Cheerful society and a happy mind are of great moment.

Dr. Montgomery says, "except there be something specially to forbid its use, *mercury* should be given, so as to bring the system very gently, but decidedly under its influence; for which purpose it may be combined with iodine in very minute proportions, with camphor, opium, hyoscyamus, or hemlock." By a reference to pages 77 and 112, it will be seen, that I have long entertained similar views of the remedial power of this invaluable remedy. Still, if the disease has advanced beyond the first stage, if there be a predominant irritability or tendency to phthisis or struma, it ought not to be administered. Several of the cases scattered throughout the book, will demonstrate its value, where the cervix had become thickened and indurated.

Abstinence from food has been strongly recommended, and cases have been recorded where reputed cures were effected by living for long periods on iced-water. Ponteau and Mr. Pearson have adduced such. But it must be remembered, that irritability is not an unfrequent consequence of anemia; and few women could endure such abstinence without its occurrence, associated probably with alarming exhaustion. There can however be no doubt, that much may be effected by a strictly regulated diet. The propriety of *sexual abstinence* has been generally and very properly insisted on. Dr. Beattie, however, thinks that the disease runs on more rapidly to a fatal termination, where the husband and wife have been separated, than where they have been allowed to continue together. Such are probably very rare and exceptional instances, as no other writer seems to have arrived at similar conclusions.

Formerly certain medicines, by altering the condition of the blood, were belived to be curative. Amongst these, *conium* enjoyed the highest celebrity, while *belladonna*, *stramonium*, *hyoscyamus*, *aconitum*, and some others, although less relied on, were still of repute. Of all, it is enough to say, that cancer has never been cured by them; and the most they have probably accomplished, is the relief and mitigation of the attendant pain by their sedative properties. These drugs, however, and espe-

cially iodine, mercury, and iron, should form a part of the treatment. Of iodine and mercury I have already spoken; and certainly chalybeates, either as natural waters or artificially prepared salts, accomplish a vast amount of good. The iodide of iron I have exhibited, in combination with the ioduret of arsenic and conium. In one case especially, topical treatment also having been employed, a cervix, with several tubercular deposits in its structure, apparently yielded to its power; the tumours themselves, of scirrhous hardness, softening and becoming absorbed, instead of passing into the ulcerative stage. There is no reason why the internal use of iron should not be combined with the external; and I have known some instances, where very suspicious appearances of the lips and tongue have been cured by the local application, and internal use, of the sesquioxyde of iron. Almost any of the preparations of this invaluable remedy may be either dissolved or made into a paste with water, and topically applied. Collating the opinions of others resting on cases, with the facts observed by myself, I am convinced that mercury and iodine, aided by iron and the horizontal position, are the best general remedies. But in cancer of the cervix uteri, even these are not to be relied on alone: external or local treatment must be employed.

Local Remedies.—Blood-letting, in some instances by venesection, but most frequently by cupping, and leeches applied to the perineum, vulva, or *cervix uteri*, or by scarifications of this latter part, has long ranked amongst the most efficient means for diminishing the size and arresting the advance of cancerous growths. M. Lisfranc says, "that local bleeding, however copious, determines new congestions toward parenchymatous organs;" and that if we hope to produce any antiphlogistic effect by leeches, they must be applied in very great numbers, and should be preceded by at least one general bleeding." Valsalva, Fearon, Begin, Montgomery, and almost every writer with the exception of Lisfranc, are agreed on the utility of the local abstraction of blood. Doubtless leeches should be used in the early stages of carcinoma uteri, and in sufficient numbers to empty the vessels, otherwise increased congestion may be the result. Nor is it improbable that in some cases, particularly where the

tubercular deposit is closely adherent to the skin, that their use may be precluded by the dread of ulceration following the bites. Every one, under such circumstances, will fear the development of cancerous softenings and degeneration. Still, allowing their fair weight to these disparagements, there can be no doubt that capillary depletion is highly valuable, not only by diminishing pain and congestion in the diseased part, but also by relieving inflammation and congestion in neighbouring tissues. As already observed, M. Lisfranc's prejudices must not be permitted to negative a treatment, almost invariably valuable. I have seen cases, where patients were so convinced of the utility of leeches from the diminution of uterine pain, weight, and general pelvic uneasiness, as to urge their frequent use. Nor can there be any doubt, that mercury or iodine, and baths and fomentations, will be more efficient where local depletion has been previously employed. The repetition of the local bleeding will be regulated by the estimate of the benefit; nor in any case should it be carried further, especially where a large quantity of blood is abstracted by cupping, than the powers of the patient fully justify. I have seen prostration induced by a disregard of this precaution, and I have been convinced that the disease subsequently advanced more rapidly. In many instances I have advantageously ordered leeches to the cervix, varying in number, from three to eight, once every seven or ten days, enjoining the hip-bath immediately afterwards. It is always, I think, to be regretted, when any circumstances interfere with their use.

Baths.—There are few practitioners who doubt the utility of warm-baths in the first stage of uterine cancer. Lisfranc says, "they attract the blood towards the pelvis, (vide Lectures in the Lancet, November 1833), which, where there is a disease of the pelvic organs, we should avoid." He instances the effect produced by them in bringing on menstruation when arrested, and incorrectly remarks, that after their use patients almost always complain of greater pain and weight about the pelvis.

Such complaints I have scarcely ever heard, and M. Lisfranc must surely forget, that the bath and previous leeching or scarifications, are to relieve a congestion already present; for he cannot be ignorant, that the form of amenorrhœa to which he

refers, and the pain and tension of the cervix in cancer, most frequently depend on this identical congestion, to relieve which topical bloodletting and the hip-bath are so successfully used. Let it, however, be understood, that the patient must remain in the bath at least an hour night and morning, and sometimes even for a longer period. The bustle and hurry of a bath, when used only for a few minutes, excite and do harm, by inducing irritation and syncope. Its calming, sudorific, and sedative effects, cannot be realized in less than an hour or an hour and a half. Nevertheless, there are women so susceptible, so prone to faint, whose digestive organs are so easily deranged, and their appetite destroyed, that the bath cannot be used. Often have I heard patients declare, that they owed their sleep, and freedom from pain, to the regularly repeated nightly bath. If chilliness, faintness, sickness, increased leucorrhœa, diarrhœa, or prostration of strength ensue, then it must be given up. The soothing effect of the bath is certainly increased by admitting the warm water into as complete contact as possible with the vagina and os uteri; a point easily accomplished by a common speculum tube of the proper size, perforated with numerous holes at its sides, which the patient soon learns to introduce for herself.

At what time, it may be asked, are *blisters and setons*, and the *topical use of iodine, the chlorides of zinc and mercury*, and *nitrate of silver* to be commenced? I think these local remedies will be most efficiently used, when by depletion, the hip-bath, a regulated diet, the recumbent posture and mild aperients, the congestion, and general induration of the cervix have been diminished, and when the muciparous glands have lost some of that shot-like or gravelly hardness already described.

Let it also be remembered, that in this stage there is no disease of the upper portion of the vagina, no consolidation of this canal with the uterus, nor of the uterus with the neighbouring viscera; but the affection appears to be entirely limited to the cervix. It is important to remember that this is the only curable condition. If the malady has advanced so far as to have implicated other structures, it will scarcely be reached by remedies either of a constitutional or topical kind. It must, too, be understood, that no part of the plan can be safely neglected;

not a few only, but many weeks are required fully to carry out a treatment, whose efficacy must be tested rather by the disease not getting worse, than by any rapid amendment. If, however, there be a slight improvement, if the cervix loses its defined hardness, whether of the muciparous glands or of its more general structure, it may be assumed, that the affection is progressing towards cure, and that however distant, the period of entire removal will come.

Iodine.—So far as my experience has gone, the external application of this drug to the cervix is sufficient to secure its beneficial effects, especially when the friction is persevered in for ten or twelve minutes. Many patients apply it by the finger, others employ a camel-hair pencil or sponge, mounted on a slender piece of cane. If the iodine be given by the stomach, vertigo, excitement, irritability, and occasionally bleeding from the nose or mucous lining of the trachea, are more frequently and quickly produced, than when the remedy is used by inunction. Even in the latter method, after a few weeks, the iodine rarely fails to give rise to these peculiar effects. The ointment I use is the following: —

℞. Iodin. pur. gr. xv. Potassæ Hydriodat, ℈ii. Unguent. Cetacei, ℥iss. M. ft. Ung.: nocte quàque infricand.

A portion of the ointment, about the size of a small nutmeg, is to be introduced into the vagina, and rubbed into the affected cervix every night. When the symptoms already described shall occur, the remedy must be given up for a week, ten days, or a fortnight, during which interval, aperients of magnesia, tonics, and nutritious diet, should be employed.

The average time, in which I have seen resolution of the induration accomplished, varies from eight or ten, to sixteen or twenty weeks; this event greatly depending on the diligence and susceptibility of the patient. It may, however, be remarked, that while there are many individuals incapable of receiving the impression of mercury, there are very few on whom iodine will not exert its accustomed influence.

Nitrate of Silver.—I have found this caustic most useful where the mucous tissue, lining the channel of the cervix, or

around the margin of the os, has been red and tender, or where there have been obvious or slight ulcerations, or a tendency to softening. The character of the mucous membrane has generally improved after three or four applications; and in a case I am now attending, the very unhealthy surface of an indurated cervix, and its attendant and excessive leucorrhœa, have been cured by its employment. It must be repeatedly used where there is a fear of ulceration, or where, from the fetor of the discharges, and the increased pain and unhealthy aspect of the surface, the disease seems likely to make rapid progress. Severe pain is not often complained of, not even where the solid nitrate is rubbed over the part. Frequently, however, where the patient has suffered pain before, the nitrate has entirely removed it, and I can speak most confidently of the advantage of repeatedly obtaining a new surface from its use. The following is a sufficiently strong lotion: —

℞. Argenti Nitratis, ℈iss, ad ℈ij.
Aqua distill. ℥iv, M. ft. Lotio.

It is scarcely necessary to remark, that the speculum must be introduced, in order to apply topical remedies with the exactness which they require.

Even the most sceptical must allow, that there is nothing negative about the treatment here enjoined; nor will it be denied, if it be not beneficial, that it need do no harm. Thus, while on the one hand it can be proved that great good has arisen from the judicious trial of these means, it may on the other be demonstrated, that where they have failed, the affection was too far advanced before they were employed. An additional inducement to adopt such treatment, is the certainty, although in some instances very slow, where the disease is left to itself, of a fatal result. At all events, it is a matter for congratulation, that any stage of cancer of the womb should, on sufficient grounds, be thought to be curable; and it is the least which can be expected for such an opinion, that practitioners of medicine shall weigh and test the accuracy of the pathology, and the value of the means believed to be thus beneficial. The appended cases will throw additional light on the subject of this chapter.

Case 62.

REPORTED BY MR. HENRY OLDHAM.

Elizabeth ———, aged 49, a woman of ordinary stature, with dark hair and eyes. She is married; is the mother of six children; and has had two miscarriages. She began to menstruate at 13 years of age. Amenorrhœa was induced from wet feet, after the third period, and this condition existed for the space of five years. During this interval, she endured the most aggravated sufferings: she appears to have passed through the successive stages of the simple, severe, and confirmed chlorosis; and when in this latter state, her friends aptly compared her to a "walking ghost." This affection gave rise to, and became complicated with, insanity, which continued for three weeks, being preceded by severe headache, and other symptoms of cerebral excitement. This was relieved by a discharge from the ears and nose, of a yellow colour, and very fetid. This chlorotic condition was eventually cured by the re-establishment of the catamenia. From this time, till within the last twelve months, she has regularly observed the accustomed periods. Her age indicates that the catamenia are about to cease; and the history of her symptoms, during the last year, confirms this opinion. The menses have been very irregular, both in quantity, quality, and time of recurrence. A profuse leucorrhœa alternates with the catamenial flow.

On admission, she complained of lumbar pain, central pains in the lower abdomen, of a pricking and shooting character, which have existed during the last three or four months. An offensive muco-sanguineous discharge (being the catamenia mixed with leucorrhœa) flows from the vagina: the constitutional symptoms are slight.

On examination — "The mucous lining of the upper part of the vagina is relaxed and hot; and above this a hard body is felt, occupying the superior part of the cervix, and the lower portion of the posterior paries of the uterus. The os is hardened and fissured."

After a short preliminary constitutional treatment, and the maintenance of the recumbent position, she was ordered

Julepum Iodinæ, ter die,
Unguenti Iodinæ, instar nucis Moschatæ massa, tumori diligenter nocte maneque infricanda.

This course was adopted on the 2nd of June; and at the commence-

ment of August, all the appearance of the tumour, and the unhealthy condition of the os, had disappeared; and she left the hospital cured.

Case 63.

REPORTED BY MR. TRENERY.

Jane ———, aged 25, was admitted into Mary's Ward, September 5, 1835. She is the mother of three children, the last of whom was born three months since. Her labours have been undeviatingly easy, and her general health uniformly good. Since her last confinement, the abdomen has been considerably distended; and occasions great suffering when pressed. This enlargement is the result of an accumulation of flatus. In addition to this tympanitic condition, which is associated with impaired appetite, occasional nausea, and constipated bowels, she complains of a sense of weight and bearing-down in the lower abdomen, which is aggravated by the erect posture or by walking.

After an examination, Dr. Ashwell reported:—

"I find a tumour of scirrhous hardness situated low down, on the posterior part of the cervix of the uterus, but not implicating the lip. This growth presses on the rectum, and thus accounts for the constipation."

After the use of an assafœtida injection, with the internal administration of tonics, to diminish the size of the abdomen and improve the constitutional power; she was ordered to take the julepum iodinæ three times a-day, with the topical application of the unguentum iodinæ. A small portion of the ointment, about the size of a nutmeg, was to be passed up the vagina by the nurse, and rubbed over the tumour. She continued pursuing this plan, with occasional intermissions, till October the 24th; when, on an examination instituted by Dr. Ashwell, it was found that "no vestige of the tumour was present, and that the os and cervix were perfectly healthy." During this interval, her symptoms were those arising from the mechanical pressure of the tumour, which gradually subsided with its resolution.

Case 64.

REPORTED BY THE CLINICAL CLERK.

Sarah ———, aged 32, a woman of middling stature, fair and delicate complexion, with light-brown hair, was admitted into Mary's Ward on

the 24th of January, 1835. She is a married woman, and the mother of two children, the youngest of whom is thirteen months old. Her health has been uniformly good. Some short time previous to her marriage, which took place five years ago, and subsequent to that period, she has had leucorrhœal discharge. The catamenia, too, from the same period, have been profuse in quantity, frequent in their recurrence, and long in their duration, usually appearing every three weeks, and lasting for eight days. This excess of secretion continued two years before its effects were visible on the general health. Since this time she has suffered constantly from languor and lumbar pains. Her last confinement, thirteen months since, was followed by the establishment of an excessive red discharge, apparently a passive hemorrhage, which reduced her constitutional power, and engendered debility with loss of flesh.

A slight increase at the lower part of the abdomen, with three months' suppression of the catamenia, had induced the belief that she was pregnant. This supposition was confirmed by her experiencing sensations analogous to those she had noticed in her previous pregnancies. She was dispossessed of the idea, however, by the appearance of the catamenia a fortnight ago; on the accession of which, the abdomen resumed its natural size, and the mammæ, which had become tense and rounded, shrunk into a flaccid condition. The leucorrhœal secretion has relaxed the vagina.

Jan. 26,—After an examination, Dr. Ashwell made the following report:—

"The uterus is enlarged generally; its lips and cervix are swollen and soft; and there is a considerable quantity of leucorrhœal secretion bathing the parts posteriorly. Just above, and encroaching on the cervix, at the posterior part of the uterus, is a tumour about the size of a hen's egg, scarcely hard enough for scirrhus."—Ordered,

℞. Iodinæ puræ gr. xij. Potassæ Hydriod. ʒij. Adip. ʒiss. fiat ungentum.—Infricetur massa instar nucis Moschatæ super tumorem nocte maneque.

Julep. Iodin. c̄ Vin. Ferri, ʒi. ter die sumend.

The tumour, by pressing on the rectum, is the occasion of constipation: and prolapse of the gut ensues in the attempt to evacuate the fæces. She complains of a dragging sensation at the loins, with pain at the lower part of the abdomen; but it is not severer than what usually co-exists with the performance of the menstrual function.

She continued to pursue this plan of treatment for six weeks, omitting the application of the iodine during the catamenial flow. On an examination being instituted after the expiration of this time, the tumour on the posterior paries of the uterus had disappeared. The use of the iodine was unattended with any deleterious effects. She had assumed a more healthy and robust, rather than an emaciated appearance; and, during its exhibition, she did not complain of headache or undue cerebral excitement.

Case 65.

REPORTED BY MR. TWEEDIE.

Elizabeth ———, aged 46, was admitted as as an out-patient of Dr. Ashwell, in the early part of 1833. She has borne several children, and till lately has enjoyed good health. For the last few months, however, there has been vaginal discharge, of a muco-purulent, and occasionally of a sanguineous character. She suffers much from central pains, especially from pain deep down behind the pubes; her appearance is cachectic and unhealthy; the catamenia are irregular.

On examination, the cervix was found excessively hard and enlarged, without any distinct deposit of hard material; the edges of the os puckered and uneven, and their surface slightly broken; ulceration appears to be just commencing.

Sumat Julep. Iodine, ℥i. ter die. — Utatur Ung. Iodinæ, more solito.

This case continued under treatment for nearly twelve months; but as it was only one out of many similar examples, there was no accurate note preserved of its progress towards cure; nor would it have been reported at all, if the patient had not accidentally presented herself, in November 1835, in the out-patient's room; and thus afforded to Mr. Tweedie, who originally had charge of the case, and to myself, the opportunity of carefully examining the os and cervix.

"All vestiges of induration, puckering, irregularity, and abrasion of surface, have disappeared: and, with the exception of a leucorrhœal discharge, the parts may be pronounced entirely healthy."

I have seen this patient very lately, and I can still report the parts to be as sound as they were when the treatment was first discontinued.

Case 66.

For this and the following Cases, I am indebted to Dr. Montgomery.

Mrs. S., I saw this lady, at the request of Mr. T. Burke of Camden-street, on the 24th August, 1833. She was in her 47th year, had had six children, and had encountered much domestic anxiety. She was suffering severe pain, for the last nine months, in the region of the uterus, in the small of the back, and down the thighs, with occasional profuse hemorrhages, alternating with sero-mucous discharges. A vaginal examination detected well marked morbid alterations in the uterus, the orifice of which was irregularly notched, tumid, and with several nodules of scirrhous hardness projecting all around its margin; and the posterior wall of the cervix was so much thickened, that, when felt from the rectum, there was a distinct prominence of the part, with very painful sensibility; she had lost her appetite, was losing her flesh, got little, or no sleep, and was in great distress of mind, about the state of her health.

The treatment was commenced by leeching, and the use, both internally and externally, of hydriodate of potash and iodine, and of anodynes; subsequently, the symptoms not yielding, her system was brought, moderately, under the influence of mercury, and so kept for some time; lastly, she took carbonate of iron with hyoscyamus and conium; counter-irritants were used; the leeching was frequently repeated; the hip-bath was tried, but it so decidedly made her worse each time, that it was given up. After several months of continued treatment, she was perfectly cured of the uterine affection, and has now been well for more than seven years.

At one time, during the earlier part of her treatment, this patient suffered much, from increase of volume in the breasts, which became, at the same time, excessively painful, and exhibited a remarkable change in the condition of the areola.

Mr. B —— this day, Nov. 29, 1841, informs me that the healthy condition of the uterus was ascertained by him, the day before yesterday.

Case 67.

REPORTED BY DR. MONTGOMERY.

Mrs. B ———, aged about 35 years, is a member of a family, amongst whom there has been a very extraordinary predisposition to cancerous affections; she has had three children, and one of her labours was severe. When I first saw her, which was in May, 1837, she complained of lancinating pains in the loins, back, and thighs, dysuria, bearing down, with irregular sanguineous and other discharges; and, on examination, the os uteri was tumid, uneven, gaping a little, with its margins irregularly nodulated, and, in one spot, there was a deep cleft, as if the part had been torn; there was no discoverable increase in the volume of the uterus, nor any consolidation of it with the surrounding parts. She was put, gently, under the influence of mercury, and afterwards, treated with iodine and iron, baths, &c., under which plan, the symptoms were completely relieved for several months; but on September 16th, 1838, my attendance was again required, and I found all the former symptoms had returned with increased severity; and on examining the os uteri, its condition was more unfavourable than on the former occasion; the nodules had become harder and more prominent, and the whole of the lower part of the cervix had increased in size, and was much congested with blood; there was, also, a tumour apparently of the ovary, in the right iliac hollow where there was considerable tenderness; leeches were now applied directly to the os uteri; and she was put under the use of mercury in alterative doses, but not so as to induce its specific action on the system. The leeching was repeated, both internally and externally, and then iodine was given, and afterwards iron for several weeks, with occasional applications of counter-irritants.

On the 23rd October, the note of her case was, "ovarian tumour much diminished and the tenderness almost all gone; the cervix uteri less engorged, but tubercles still hard and prominent, but not so sensitive, and she suffers less pain; has menstruated once, quite regularly, while taking the small doses of mercury;" the specific action of this remedy was now induced by blue pill, with iodine and extract of opium, and kept up for some weeks, being accompanied by leeching, baths, &c., and followed as already stated, by the use of iron, iodine, and other means, as occasion appeared to require, and the result was, the complete removal of the complaint; and I am now informed, by

her medical attendant from the country, that she continues perfectly well.

In another case Dr. Montgomery says, on examination, "I found a fulness in the left iliac hollow, with considerable tenderness on pressure; but I could not detect any defined tumour. The os uteri was irregular in its form; its margins hard, and rendered very uneven by the projection of several well defined small nodules, having all the firmness of true scirrhus, and very sensitive to pressure, which she said drove the pain out through her back, into her left side and thigh, and up to her stomach, giving her a sensation as if she were about to vomit, or retch. The lower part of the cervix uteri was a little increased in volume, and, when seen through the speculum, was almost purple from vascular congestion, and the temperature of the part was decidedly above the natural standard.

"The treatment adopted was very nearly the same as that of the last case. Leeches were applied to the os uteri, and over the left side, where a small blister was kept open for several days, and on two, or three occasions, other counter-irritants were also applied, and the system was brought, gently, under the influence of mercury, and so kept for some weeks; afterwards, iron and iodine were used, by friction and internal use, with warm baths, tonics, &c.

"There was such a decided amendment by January, that she went home, and the treatment was directed by letter till April, 1839, when she came to town, and I found the os uteri almost restored to its healthy state; and, six months afterwards, it was completely so, and still continues, of which I satisfied myself while writing these observations, November, 1841."

One other case, in which the symptoms were well marked, I shall only refer to, for the purpose of mentioning, that since the removal of the affection, the lady has borne three children.

Having had several opportunities of knowing, that cancerous affections of the uterus do not prevent conception, which supplies fuel to the flame already kindled, I think abstinence from connubial intercourse cannot be too strongly insisted on, until full time shall have elapsed to allow of the adoption of efficient treatment, not only for the removal of the morbid organic condition of the organ, but also, for the subsidence of the increased irritative susceptibility which must remain after such alteration.

Early in 1839, I saw a lady, aged about 40, from the North, who had been, more than two years, labouring under this disease, during which time she had been pregnant and prematurely delivered, and was

again so, a second time, when she came to town to consult me. Each time, pregnancy was followed by a great increase of her sufferings, and when that period arrived, at which distension of the lower half of the cervix began, the irritation became so great, that labour was prematurely excited. I understand she has been pregnant a third time, with the same result.

In October, of the same year, I saw, in consultation with Dr. Apjohn, another lady, from the West, in whom, this condition had evidently existed for some months, and who, after submitting to treatment, for a short time, in town, became pregnant, soon after her return to the country, and went to her full time.

My friend Dr. White, of Knock, county Clare, under whose care this lady has long been, has just sent me an account of her progress, which, as containing many particulars of interest, I shall give in his own words.

"*Thornberry, Knock, Dec.* 1*st*, 1841.

"When Mrs. —— left Dublin (about two years since) she continued, for about three months, as you then saw her, after which, she became pregnant; during the earlier part of her pregnancy, she appeared to get better in health, except that the lancinating pains continued, and for the last two months her legs became numbed, and she was unable to walk; at the time of her delivery, I could feel the right ovary enlarged and uneven, the os uteri was thickened, hard, and uneven, and there was considerable hemorrhage, which continued for some hours, it consequence of the imperfect contraction of the uterus; since then, (now a year) she has been gradually growing worse, *the menses have appeared regularly*, but more profuse than natural, and there has been constant fluor albus; for the last month, the discharge has become, sometimes, very abundant, sanious, and offensive, at other times, it is ichorous, with a yellowish tinge, the os uteri is patulous and hard, and there is considerable tenderness in the hypogastrium, particularly at the right side the legs are quite paralized, she is, almost entirely, confined to bed, and the pain is very violent; for the last two months, she has had a constant spitting of thick mucus, which is very distressing, the right ovary can be felt through the integuments, but has not increased in size, for the last year, but I think the uterus has; as to the treatment, it has been latterly, chiefly with a view to relieve suffering; no plan of treatment that has been, as yet, tried with her, appears to have any useful effect.

"Very sincerely your's,

"Henry White."

In cases where there is abrasion or softening of the cervix, with increased sensibility and adjoining induration, I have used the strong solution of nitrate of silver as an erodent, (30 or 40 grains of the salt to ʒiv of distilled water) with marked benefit. It is best applied with a speculum: the lips of the os and the channel of the cervix, as well as its external membrane, are thus brought into view, and the solution or the solid cylinder of the nitrate, may then be accurately smeared over the affected parts; either by a hair pencil or by tow, fastened to the end of a piece of cane. This caustic rarely produces much, or lasting pain. It is quickly decomposed by its contact with the fleshy cervix; the oxide of silver remaining on the surface, and assuming a black or dark blue colour. Usually, the eschar is detached about the third or fourth day, being thrown off in shreddy films; when the abraded surface will generally have acquired a much redder, and healthier aspect. The caustic should be early repeated; and if after the fresh eschar, there is still further topical improvement, the treatment should be persevered in, and a hopeful pronosis may be cautiously given. Often, after these renewed applications, extending over many weeks, and aided by the *Lotio Nigra*, or the *Oxide of Zinc*, I have healed abrasions, and commencing ulcerations of the os and cervix. The accuracy with which any erodent substances may be applied through the speculum, and the little pain and exposure attendant on its introduction, give to it a peculiar and increasing value. The glass specula now made, are especially useful, as the caustic spoils the polished surface of the metal instrument. On the glass it exerts no chemical action, and is easily washed off.

Of the *Bi-chloride* or *Oxymuriate of Mercury*, I am somewhat afraid, as it causes much pain, local heat, tension, and inflammation. On two occasions, where I thought I had used it sufficiently carefully, in addition to the above inconveniences, it produced slight symptoms of poisoning, and a tenderness of the gums. In a granulated condition of the cervix, accompanied with partial and suspicious indurations and fetid discharges, I once employed the *Chloride of Zinc*; but as the pain

was severe and protracted, and the eschar was seven or eight days in separating, and as the surface was not more improved than I had often seen where the lunar caustic had been used, I have not again resorted to it. *Of Arsenic, Sulphate of Copper,* and *Nitrate of Mercury,* I have no experience. I have never witnessed the effect on a diseased cervix of the actual cautery, nor can I think it would be more permanently beneficial than the potential erodents. The proximity of the part to the bladder, urethra, rectum, and vagina, would seem, independently of other considerations, to forbid its use; excepting it were undeniably proved, that the resulting inflammation and suppuration were of far healthier character, and attended by results far more permanent than can be obtained in any other way. Notwithstanding that it may, perhaps, be found, that the actual cautery alters more considerably than any other caustic the vital condition of surrounding tissues, and effects greater changes in the subsequent capillary circulation; I feel persuaded it will never be more than very partially used in this country, for diseases of the uterus, suspected to be malignant.

In conclusion, I would caution practitioners against the too common error of at once determining an ulceration of the cervix to be malignant, because it may co-exist, with doubtful hemorrhages, induration, and other suspicious symptoms. I know this is controversial ground, and with those who have long regarded every protracted hardness of this part, as sure to result in cancer, it will be difficult to produce a contrary impression. With truth I can affirm, that such an opinion may in some, if not in many instances be safely abandoned, and a more favourable one entertained. But, allowing more than I am disposed to concede on this point, the possibility, that such a change may not be cancerous; or if so, that its progress may, in this early stage be arrested, and the patient saved from the full development of an incurable, lingering, and agonizing disease, are certainly events sufficient to insure the fullest trial of the treatment now enjoined.

OF THE ADVANCED STAGE OF CANCER.

History and Symptoms.—It may be assumed as a fact, with scarcely any exception, where the treatment already enjoined has failed, that sooner or later, without any special cause, although often hastened by local irritation or injury, the induration of cancer will gradually pass into the stages of softening, suppuration, and ulceration, states, which if once established, leave no ground for hope. These processes, however, are all peculiar: the softening is not that of phlegmonous abcess; for, while one or several parts of the indurated mass may entirely lose their hardness, and become really pulpy, other portions, in immediate proximity with these, may still retain their solid and stony feel. The pus, too, in cancerous suppuration, will often be ichorous, thin, and variously coloured, often peculiarly and extremely offensive, and excoriating the parts with which it comes into contact; while the ulceration is frequently very painful, and not only contaminates and destroys surrounding parts, but has, springing from its surface, fungoid growths, soft, easily lacerable, and bleeding on the slightest touch. In other instances, where the muciparous glands, so numerously existing in the channel of the cervix, and around the margin of the os uteri, have become scirrhously indurated and granulated; and where remedies have failed, or have been either too late or carelessly employed, I have watched the same process of degeneration and gradual ulceration, till at length the natural form of this appendage to the womb has been entirely destroyed, and instead of a small aperture, into which the tip of one finger only could with difficulty be passed, there has been formed, by this destructive and malignant process, an opening large enough to receive easily three or four fingers.

Still, without careful and frequently-repeated examination, both by the touch and the speculum, it will be difficult accurately to appreciate the extent and the progress of these destructive changes. Not that, if they are about to occur, we

shall be long in doubt; for there are other indications of a coming change, too distinct to be misunderstood; but I am sure that, without such investigations, we shall frequently mistake a transient and accidental attack of indisposition and weakness for an irremediable aggravation of the disease. Any one who has watched the march of cancer of the womb, cannot fail to have been struck with its insidious advance; first, a decline of strength, which has from day to day been scarcely perceptible, becomes at length painfully evident, when an exertion is attempted, which perhaps only a month before was easily borne. Then the appetite begins to fail, and must be tempted with highly flavoured food; the bowels having been previously sluggish, are now occasionally purged, and without any powerful aperient; and a day or two may elapse before the exhaustion induced by such a diarrhœa is recovered from. In a little time the constipation returns, and injections are necessary to procure relief, scarcely ever obtained without some suffering, and often not without severe pain. However we may desire to conceal the fact, soon emaciation begins, and the yellow whiteness or pale leaden hue of the skin, and the tapering of the fingers, and the general diminution and putty-like softness of the solids, the œdema of the extremities, the daily fever, the general derangement of the functions constituting the *cancerous cahexia*, — painfully attest the progress of the disease. There is often, too, at this period, a distressing restlessness, preventing sleep, irritation of the neck of the bladder, prompting to frequent and unsatisfactory efforts to pass water. Further inquiry seldom fails in bringing to light the fact of an increased amount of purulent and ichorous discharge; and it is not long before hemorrhages, sometimes very profuse, and coming on without any undue exertion to account for their occurrence, confirm the conclusion, that the disease is certainly progressing. If there has been no severe or constant pain before, it often begins now; and if the malady has been throughout painful, it generally happens, when the ulceration is thus more rapidly contaminating and destroying surrounding parts, that opiates must be given, at least once, and often twice during the day. In many instances, patients

are at a loss to express in terms sufficiently strong, the agonizing and constant suffering induced by the burning and lancinating pain about the neck of the womb and neighbouring parts.

If an examination by the speculum be made at such a juncture, it will generally reveal either decided and spreading ulceration, or a prominent and florid elevation of the lining of the channel of the cervix, exposed to view either by a wide and capacious, or by a partially destroyed os. It too frequently happens, that an investigation has not been made till this period; and it is indeed most disappointing to be compelled to believe, and cautiously to tell the friends of the sufferer, that the disease is entirely hopeless. It would be as wrong, even in such a state, at once to announce its real character, as it would be to abandon the patient to insufficient and partial efforts of palliation. There is yet much to be done; and as it is impossible to say how long life may be protracted, so we ought, by every possible means, to smooth the approach to death. Lately, in a case where the hemorrhages, although small, were frequent, and where the os was fissured and granulated, ulceration being erroneously supposed to exist, an abandonment of all active treatment was recommended. And yet in this instance, the application of a very strong solution of lunar caustic, daily injections of a saturated alum lotion, a regulated diet, and a sparing exhibition of narcotics, have kept the disease stationary for three years—four months having been predicted as the utmost extent to which life could possibly be protracted. Such opinions should not be hastily given. There is neither empiricism nor fraud in an opposite course. It is certainly wrong to promise a cure; but if life can be prolonged for months without painful treatment, and with some considerable measure of comfort, it is right to afford the patient such a chance of an arrest of the malady.

It would be scarcely proper in a history of advanced cancer, if I were not to mention, that it is not uncommon, before the final issue, for the whole cervix to be destroyed, the aperture of the womb, thus formed, being filled up by a tolerably firm and immoveable, or a softer fungoid mass; nor is it

rare for the vagina, rectum, urethra, and bladder to be involved in this general ulceration. The attendant sufferings, in many instances, may be conceived, but they can scarcely be described. It were easy to amplify this narration, but enough, probably, has been practically stated, to show the pathological importance of cancer of the womb, its general incurability, especially if it be neglected in its early stage; the agonising pains so often attendant on its protracted course; its extraordinary power of growth and dissemination; and its loathsome destruction of surrounding parts.

The *treatment* of the advanced disease, although essentially palliative, must of necessity be complicated; and that practitioner treats it best, who, by assiduous watchfulness and skilful adaptation of our many resources, checks almost all, and removes many of its painful inconveniences. At the end of the chapter will be found some remarks on the removal of the entire uterus, an operation now abandoned, and on the excision of its cervix.

There is generally somewhat of a consecutive order in the after symptoms; and although each case may, in its course, present marked variations, still there are indications of gradual aggravation, too similar, to be either mistaken or overlooked.

The discharges, the hemorrhages, the advancing ulceration, the pain, and the various constitutional affections of cancer, in turn, and often existing together, call into exercise every palliative measure. In some instances, however ably and perseveringly employed, all our efforts fail: the pain is so intense, burning, and constant, and the effects of opium, largely and constantly administered, so distressing, that we almost despair even of soothing such dreadful sufferings. These, however, are but the exceptional and very rare examples; and while truth requires such a statement, it is a happiness to be able, with as much truth to declare, that in by far the greater number of instances such aggravations do not exist.

The Discharges.—It has been said, that after the commencement of ulceration, the discharge always, and at once loses the character of the usual vaginal secretion, and is not only aug-

mented in quantity, but becomes so fœtid, as exceedingly to distress both the patient and their attendants. Such a result is by no means invariable. The discharges, even in the advanced stages of the malady, vary much. Sometimes, and for many weeks together, they are free from acrimony and odour; and so small in quantity, and so rarely even tinged with blood, not to mention the long absence of hemorrhages, that, but for painful experience to the contrary, a sanguine hope of cure might be entertained. I acknowledge that such appearances do not last. At the moment, perhaps, when the hope thus excited is beginning to be confirmed, the discharge again becomes profuse, tinged with blood and ichorous, or it may suddenly and entirely cease, being superseded by an unexpected copious uterine bleeding. The practitioner must not then be misled by these appearances, and induced to give a too favourable opinion. I have known the discharges to be scarcely fœtid till within a few weeks of death; and several times I have been astonished, where fœtor has been absent, to discover the cervix extensively ravaged by ulceration. There can be no doubt that the *emaciation* is partly attributable to these constant drainings; and the advance of the malady, however insidious it may be, is almost always proportionate to their amount. Still, although every kind of discharge may, in some instances, be entirely absent, one cannot fail to be struck with the fact, that, *where ulceration has really commenced*, there is never, even for a day, a complete freedom from some of the symptoms marking the existence of a malignant and irresistible disease. Thus, if an alarming bleeding has been arrested, the discharge, be it purulent, muco-purulent, sanguineous, or watery, will immediately return; and where there has been no bleeding or a diminished discharge for several or many weeks, the pain and restlessness, the fever and peevishness are usually distressingly aggravated. Thus, the anodyne has to be increased, and after a little further time, although there may have been a long apparent arrest of nearly all the worst symptoms, the disease has been working, and increasing emaciation and declining strength cannot be concealed.

Even after many such vicissitudes as these, a temporary lull

of the symptoms induces a new and fondly-cherished hope, to be indulged for a time and again to be destroyed, till at length it becomes too evident, that impending death cannot much longer be warded off by human means.

It is unnecessary to repeat what has been already enjoined, (page 387) as to the *constitutional management;* but a few practical hints as to *the local treatment of the discharges,* may not be without advantage.

It may be remarked most truly, that the practice of employing stimulating and astringent injections, whenever there is vaginal discharge, is far too general, and, in cancerous diseases, often decidedly injurious. So long as the loss is not excessive, acrid, or odorous, tepid or cold water may be injected into the vagina once or twice a day. The comfort of the patient is for a long period secured by this simple procedure; and often have I heard the most distressing complaints, when the advance of the fungoid ulceration, and the impossibility of touching it without producing bleeding, have precluded its further adoption.

When the discharges are more excessive, or not having been so before, become offensive, there is always an anxiety to use injections. They are not, however, invariably beneficial; for there are many cases where pain and increased loss are the consequence of their use. In such, a return to emollient and slightly narcotic lavements often produces the best effects. There are few points in the treatment of advanced cancer requiring more caution than injections. The mustard injection (Form 45), may be used occasionally, once daily, or two or three times weekly, when the parts are extremely relaxed, and when the discharge is thin and ichorous. Reduced to such a strength as shall only produce a moderate sensation of heat and tingling, I have often known, of course in the very earliest beginning of ulceration, this stimulant remedy arrest and improve the character of the discharge, and allay pain. One patient employed it for many months most beneficially, and she never ceased to regret its disuse. Formulæ 34, 36, 37, and 38 are highly sedative, the temperature at which they are used being made to suit the feelings of the patient, and the risk there may be of bleeding.

As *astringents* (Formulæ 55, 56, and 58) are valuable, particularly in the earlier periods of the confirmed malady. It must never be forgotten, however, that when injections fail in diminishing the amount and fœtor of the discharges, and certainly when prolonged local pain succeds their administration, they must then be laid aside. I have often witnessed the good effects of injections of *nitrate of silver*, gr. x, xv, or xx to the ounce of distilled water. They generally soothe pain, and it is not at all uncommon, after their prolonged employment, to find both the acrimony, and odour, and quantity of the discharge greatly diminished. The same observations are partially true of the *sulphate of iron;* ʒi vel ʒiss to the pint of distilled water, two or three ounces being used two or three time a day. For a time the happiest results have followed its use; and several patients have thought it was certainly curing the disease. It need scarcely be said, that such expectations have been disappointed. As the disease advances, the injections are gradually laid aside, the pain and bleeding following their employment justifying their discontinuance. *Tepid water* alone, or with a little *eau de Cologne, gin, or brandy*, must, as ablutions, be still resorted to; and the comfort of the sufferer will be long maintained by the judicious use of *chlorate of lime*, and frequent clean linen.

In concluding this chapter I may observe, that there is frequent and almost sudden change in the odour, colour, and consistency of cancerous discharges. For several weeks they may be almost insupportably fœtid and thin, after which the ulceration being temporarily stayed, their offensive smell may cease. Their colour is various: a yellow, and rather dirty-white discharge, copious, thin, and more or less acrid, with lymph or membranous coagula, is most common: but the diet and the treatment, as well as the stage of the malady, materially influence these conditions. The discharge may be dark-brown, or even black, and of course its consistency as well as its colour, will vary with the amount of blood, and the products of ulceration partially dissolved in it. Excoriations about the labia and orifice of the vagina, extending to the anus, and the upper and inner part of the thighs, vastly augment the patient's sufferings. It is an

old and true remark, that a practitioner conversant with this awful disease, will generally diagnose it correctly by the peculiar odour of the discharge.

The Hemorrhages.—These are almost sure to occur in every case. Sometimes bleeding, and to a considerable extent, is the first symptom which excites alarm; and often, in the early stage of ulceration, the hemorrhages are larger and more frequent than at a more advanced period. There is, however, the utmost uncertainty as to their occurrence, continuance, and repetition. Sometimes I have thought, in cases where I had examined frequently, that I could predict the time of the bleeding, from the heat, tenderness, and congestion of the cervix and adjacent parts; but, although occasionally correct, I have often been wrong. It is probable, that the progress of ulceration is somewhat checked by the hemorrhage, if we except the bleedings of the very advanced disease, and certainly the pain is for a time relieved. It is extraordinary that women should rally after some of these losses. I have known several pints come away by gushes, and twenty or thirty napkins to be entirely saturated. Such bleedings require the same treatment as uterine hemorrhage; and brandy in considerable quantity, lead, and opium, are indicated. Plugging with soft tow may be required, and ice has been placed in the vagina in bladders round the abdomen and loins. Happily these excessive hemorrhages have usually a long interval, and both the practitioner and patient are most careful to prevent their repetition. I have at present under my care a lady, who has three or four times almost miraculously emerged from these immense losses, the syncope and death-like collapse having lasted many hours. The injection of cold or iced water into the rectum, has in some instances suddenly checked them. But often our means are of little avail in the restraint of the actual loss, the blood coming away in such sudden and large gushes, and then as suddenly stopping. Our efforts in such cases must be sedulously directed to sustain life. If the pain is thus relieved for a time, and the ulceration partially delayed, it cannot be doubted that the weakness, and the impaired appetite and digestion, and the febrile re-action and want of sleep, and

many other evils following in the train of these hemorrhages, more than counterbalance any benefit. The ergot is scarcely admissible here; generally it has seemed, in my hands at least, to act as a local stimulant, and to keep up and increase the hemorrhagic tendency.

It must not be forgotten, that death may ensue immediately from these excessive bleedings, and perhaps one of the least painful teminations of life, under such circumstances, is its gentle and gradual extinction in prolonged syncope and collapse.

The advancing Ulceration.—I have already alluded to the destruction of surrounding parts, although I have scarcely mentioned the indications by which, independently of the finger and speculum, such progress may be predicted. Examinations after the disease has commenced its full ravages, are not only useless but injurious. They give pain, shock the delicacy of the patient, and frequently cause bleeding. It may be inferred, when the bladder begins to sympathize, when there is an almost constant deposition of mucus from the urine, and dysuria, that there is at least thickening of the urethra and swelling of its orifice. Occasionally in this state it is necessary to use the catheter, which can scarcely be done without pain; and when the ulceration has reached the bladder, and the fungoid mass presses upon its neck, and pushes the urethra out of its course, it is a matter of great difficulty to draw off the urine. Montgomery remarks, that for some days before the bladder gives way, there is retention of urine and dilatation of the ureters, which are found, after death, thin, distended, and diaphanous. Many patients suffer from diminished calibre of the urinary canal, and certainly this outlet and the bladder are more frequently and painfully implicated in cancer uteri than the rectum; doubtless owing to their closer approximation, and to the very little cellular tissue placed between them. Life may be miserably prolonged for some time after the perforation of the bladder and rectum; but it need scarcely be remarked, that the involuntary escape of the urine and the fæces, but especially the almost constant dribbling away of the former, must, by inducing *excoriation* and *sloughing*, awfully aggravate the suffering.

That the walls of the uterus are about to give way, may sometimes be inferred from increased difficulty and pain in relieving the bowels, arising from the pressure of the abdominal contents upon the diseased cervix and rectum.

In advanced cancer of the womb, a *vaginal* examination will always detect some of the following deviations from healthy structure:—

The cervix may be ulcerated throughout; it may be entirely destroyed; or the ulceration may be confined to the anterior or posterior half.

The diseased surface is usually rough and uneven, seldom very tender on pressure, and the finger, when withdrawn, is usually covered with a discharge more or less fetid and tinged with blood.

In many instances there is a fungoid mass, soft, and lacerable, but occasionally harder, and almost immoveable, springing from and filling up the ulcerated aperture of the os, to be in its turn the seat of fresh ulceration.

The vagina and rectum are not unfrequently partially destroyed, but it is not common for cancer of the cervix to carry its ravages far down either of these canals, death generally occurring before such an extension. The colour and consistency of the ulcerated masses vary considerably. Sometimes I have seen them nearly black; at other times dark-grey or approaching to a flesh colour. It is not rare for them to be very firm, or so lacerable, as scarcely to bear examination without rupture and hemorrhage.

Where a fistulous opening into the bladder has long existed, some chemical action often occurs between the urine and the secretion from the ulcer; and in a case lately under my care, the surfaces of the ulcerated masses were so thickly coated with gritty and earthy material, as to impart quite a hard, resisting feel to the finger. In the hospital, the same thing has several times been observed. Many remedies have at various times been tried to arrest the progress of confirmed cancerous ulceration. In none have I any confidence. The utmost we can hope for is alleviation of pain, and this is often beyond our power. *Opium in every form, conium, the tincture of benzoin,* and the *nitrate*

of silver, alone and in combination, have sometimes relieved, but more generally they have failed. Mustard, and poppy, and alum baths, hot, tepid, and cold, have occasionally alleviated the agonizing pain, but have failed in checking the ulceration. Certainly those cases seem to do the best where there is the least local meddling, beyond a scrupulous attention to cleanliness.

The Pain.—The popular opinion, that cancer of the womb is invariably accompanied by acute suffering, is certainly incorrect. But it is true that, in some instances, scarcely any infliction can equal, and certainly none can exceed its agonizing, burning, and lancinating pain. Often is the inquiry urged by anxious relations, whether the case is likely to be one of extreme suffering? We cannot always give a satisfactory reply; for there are examples where irritation and local uneasiness are coeval with the malignant deposit. The various painful symptoms, in such cases, soon show themselves, and it is not wrong to prognosticate most unfavourably. In these we are not long in doubt: remedies have but little power, and our only hope is, that the extreme severity of the disease will be compensated by the shortness of its course. In other instances, the scirrhous stage lasts long, and ulceration goes forward with but slight indications of its existence; while in a third class, by no means a small one, either in private or hospital practice, there is no pelvic pain at all. By most, the pain is described to be lancinating, as though sharp knives were constantly being plunged into the neck of the womb; and so constant is this characteristic, that some authors found on it the diagnosis between corroding ulcer and cancer. There are, however, not a few cases in which the hot, the burning character, constitutes its great aggravation. In the milder forms, where the progress is very slow, the pain is wearing and constant, but endurable. There is sometimes a peculiar pain about the rectum and anus, attended by a sensation of bearing down and prostration, increased by the erect posture, and often by the warmth of the bed. Nor is it very uncommon that the principal suffering is away from the uterus, in the loins, iliac fossæ, or along the course of the sciatic nerve; not perhaps constantly present, but recurring by paroxysms,

and lasting during the whole night, or through several hours of the day.

It cannot, after what has been said, be matter of surprise, that patients occasionally sink rapidly, as the consequence of these agonizing pains. One such case, and I could mention several, I have narrated at page 384; and M. M. Bayle and Cayol remark, that "these pains are sometimes so acute, that persons have been known to die of convulsions or delirium, occasioned by cerebral fever."

In the 5th volume of the Dublin Hospital Reports, Dr. Montgomery adduces a similar example.

It is unnecessary to dwell long on the best methods of alleviation. My experience has taught me, that opium alone can be *relied* on. At first, hyoscyamus, conium, poppy, and hop may avail; but generally, so soon as the pain becomes intense, agonizing, and nearly continual, these milder anodynes will be laid aside. For a time, the various preparations of morphia may be tried; but it will be found, especially when frequently and largely administered, that they do not procure either decided remission of the pain or real sleep. Distressing visions, hysteria, and prolonged and useless narcotic effects, even when awake, often disincline the patient to their continuance. I have not yet discovered any anodyne of equal excellence with the tincture of opium. I do not mean to affirm that there is no mischief arising from its daily employment: full well do I know the contrary. But we have only a choice of evils, and no one can hesitate between the inconveniences of the anodyne and the pains of cancer. For many months opium will procure sound sleep through the night, and enable the patient cheerfully to endure the miseries of the day. It is, however, desirable, if it can be done, occasionally to suspend its use, especially when, by its exhibition for many weeks, it has impaired the appetite, and so offended the stomach, as that there is very frequent retching and sickness. The distressing results of opium are various: headach and vomiting, constipation and fever, diminished secretion of urine, great weakness both of mind and body, may all be enumerated; but retching and vomiting are the indications most frequently demanding its temporary disuse. It is right to

begin with not more than ten or fifteen drops, and to increase it as slowly as possible. Its taste may be disguised, and its efficacy increased, by the addition of a tea spoonful of Spir. Lavend. C. and brandy. The latter ingredients require to be increased in proportion to the laudanum: thus, for a patient on whom I am now in daily attendance, the nightly draught contains nearly two hundred minims of the tincture, and a table spoonful each of brandy and the compound lavender spirit. Montgomery has truly remarked of the very painful instances of cancer of the womb, that "temporary relief can be found only in opium, and permanent rest only in the grave."

Of the various Constitutional Affections.—There is perhaps no such example of universal depravation of system. Every organ suffers, and the anæmia and emaciation in some instances cannot fail to astonish. A brief enumeration of the various derangements is all I shall attempt.

The pulse is generally quick, sometimes full and hard, but after frequent hemorrhages, it becomes soft, compressible, and wiry. There is daily fever and frequent perspiration, and but for the opiate, and often in spite of it, want of rest. The skin changes remarkably; it is hot and dry during the day, and quickly becomes shrivelled, and assumes a dirty, putty-like or leaden hue. There is in all cases more or less wasting, and when the disease is advancing rapidly, the increasing emaciation is daily more evident, till at length the bones are nearly denuded of flesh, and the greatest care is required to prevent excoriation and slough. However reduced a patient may be by cancer, there will be a marked difference between the distress and irritability attending it, and the dying languor of phthisis. There is often intense thirst and heat in and about the stomach. Sometimes, but very rarely, the constipation is distressing; and Montgomery has related a case, where the passage of the fæces was fatally arrested by pressure on the rectum, from an enlarged condition of the pelvic glands. Diarrhœa is common, and from the difficulty of checking it, is often very alarming.

The state of the abdomen varies: sometimes it is tense and and distended, and at others sunk and relaxed. I have once

seen a general anasarca. Of coincident deposition of cancerous matter in other viscera, I cannot say much from personal observation. The liver and lungs are believed to be most frequently affected. Several times, in the examinations at Guy's, I have known the opinion verified in reference to the lungs, and I have once, in the same Institution, seen a coincident deposition in the mammæ and uterus.

It is not a matter of surprise, in such cases as these, where medicine professes only to palliate, and where even palliation is often beyond its power, that the bolder and more desperate expedients of the partial or entire extirpation of the diseased organ should have been resorted to.

Excision of the neck of the uterus has long been practised on the continent, and several times in this country. Professor Simpson of Edinburgh has lately published an extremely interesting case. The patient not only quickly recovered, but Dr. Lewins of Leith, who attended her in the subsequent confinement, remarks, "that it is certain that conception took place within ten days from the date of the operation." In his paper, published in March 1841, in the Edinburgh Medical and Surgical Journal, two instances are quoted from Dr. Ingleby. In the first of these, the operation was performed for cauliflower growth. "The disease was unaccompanied by pain; but there was hemorrhage, serous discharge, dropsy of the extremities and face, with general anæmia. All the disease was removed which was connected with the uterus. Small bits, however, grew from the mucous membrane of the vagina. Whether caustic would have succeeded in eradicating these, I am unable to determine, as thoracic inflammation came on a few days after the operation, and the patient died from it and the effects of a very large vomica in one lung. Every part of the body was sound except the lungs and the mucous membrane of the vagina, *just below the cut surface* of the cervix uteri, and opposite the os and vaginal portion of the organ."

Dr. Ingleby once also excised the cervix for a malignant fungus, which did not extend above the os uteri more than a quarter of an inch. The patient, who was almost moribund

prior to the operation, became apparently quite well, actually got fat, and remained in good health for a year. The disease then returned in the vagina and bladder, in consequence of which she died.

A third case is cursorily related by the same physician, in which he witnessed the performance of the operation. The progress of the malady was not, however, arrested by it.

Lately, I had under my care at Guy's a patient whose cervix has since been amputated by Mr. Lawrence, in St. Bartholomew's Hospital. I thought, after careful examination, that the induration had extended to the body of the uterus, and in consequence I declined its excision. The removal was effected by drawing down the neck, and severing it from the body of the womb by a bistoury. Dr. Rigby informs me, that there was serious hemorrhage, but the recovery has been quick, and thus far satisfactory.

Osiander, Professor of Midwifery at Gottingen, published a minute account of his method of removal, in nine successful cases; and to him belongs the distinction of having first, in 1801, practised this important operation.

Dupuytren, Recamier, and Lisfranc, have sanctioned and performed it. The latter surgeon asserts, that *ninety-nine* cases have fallen under his care; and if his statements and opinions could be relied on, no apprehension, either of hemorrhage or of a return of the disease, need be entertained. But M. Pauly, his assistant, affirms, 1st, That Lisfranc's cases amount only to fifty-three, *(still a goodly number.)* 2. That there are no exact accounts of the failures which happened in hospital. 3. Out of nineteen private patients operated upon, *one* only has been permanently benefited. 4. Of these nineteen cases, four died within twenty-four hours, twelve had an immediate relapse, and in two others, the carcinoma not being entirely removed, the patient only sank the more rapidly. 5. Out of nine patients operated on under M. Pauly's observation, and near whom he remained twenty-four hours, six were attacked with frightful hemorrhages; and of these six, three died within twenty-four hours. In addition, abundant proof

is afforded, that in *many cases excision was really uncalled for by the nature of the disease.*

Dr. Churchill appends to these statistics the following observations:—"Such facts are enough to deter the most hardy from attempting this fearful operation; and the exposure of such misstatements is a striking lesson to all who, in order to make a reputation, are ready to forsake the paths of honour and truth."

M. Dupuytren had fifteen or twenty successful cases. M. Hervez de Chegoin, one.

M. M. Blandin and Velpeau have both lost patients after it, and the latter observes:—"Without entering into the question, whether excision of the cervix uteri may not have been frequently performed in cases in which *there was no cancer*, I will merely observe, that M. Dupuytren, who has, as it were, naturalized the operation in France, seldom has recourse to it at the present moment; that M. Lisfranc, who has so often succeeded in it, appears to adopt it less frequently than heretofore; and that, according to M. Heisse, Osiander discontinued it some time before his death."

Method of Operating.—There are two modes of excision.—The *first:* Having introduced the speculum to obtain a clear view of the part, fix the forceps of Museux, or any other having hooks at their extremities, into the cervix, and gradually draw it down till it passes a little beyond the os externum. In this way the line of junction of the vagina with the neck of the uterus is seen, and this line must be the limit of the operation. Then, by a blunt-pointed bistoury placed at the posterior part of the cervix, and at the proper height, excise as completely as possible the diseased portion, the direction of the knife being from below upwards. The position is the same as for lithotomy, and the operation is by no means a painful one, the principal suffering arising from the depression of the womb.—In the *second* method, the excision is completed within the vagina, and without depressing the uterus. Many instruments have been devised for this operation, the intention of which is the avoidance of the distressing and painful depression of the womb. Several of these are ingenious, but, from their complication,

useless. Some are painful and difficult of introduction, and even if successfully used, complete the removal less easily and effectually than may be done by the hooked forceps and bistoury.

There can be little difficulty in appreciating the merits of these two methods; for that plan must be the best, which allows the whole extent of the diseased structure to be seen, without which it can scarcely be effectually removed; nor do I believe, where the hooked forceps are carefully introduced, and the cervix gradually drawn down, that there will be much suffering; certainly not so much as will of necessity be inflicted by the bruising, and tearing, and repeated incising and scooping, consequent on the use of the occult and elaborate cylinders, scissors, and knives.

The extent of the disease, compatible with the hope of a cure, and its *unavoidable dangers,* are to be maturely weighed in each case.

1. Whenever the indurated or malignant deposit, or ulceration, extends beyond the neck into the body of the womb, the operation is indefensible.

2. Where the disease of the cervix is thus limited, if the pelvic glands or adjoining cellular membrane are enlarged by deposition, or have been long indurated, the whole of the disease cannot be removed, and therefore any attempt at excision would be blameable.

3. The immobility of the uterus is an insurmountable objection.

4. Vascular congestion of the womb and ovaries is at least a reason for delay. Excision, in such a condition, will probably be attended and followed by dangerous hemorrhage.

5. Serious affection of the general health, confirmed "cancerous cachexia," phthisis, or organic disease of important viscera, are positive prohibitions.

We cannot wonder, with so many limitations, that Montgomery, Blundell, Robert Lee, and many other eminent men, should condemn the operation as of scarcely any use; and yet I cannot but think, now that uterine diseases are so much better understood, and the absolute necessity for *early* exa-

mination by the speculum as well as the finger, so universally conceded, that opportunities will more frequently present themselves for its justifiable and successful performance. I have often been surprised that so very few, scarcely any, cases occur at Guy's, in which removal would be at all allowable. Frequently for months, and I may say years, I have anxiously examined with a view to excision, and have been disappointed by finding the disease too far advanced. Hence I have been induced to believe, that in many of Lisfranc's cases, the operation was performed for chronic congestion, not cancer of the cervix. But we may not yet have arrived at a dispassionate and just estimate of its value; and it is more than probable that hitherto, excision has generally been practised, either in affections not malignant, or at a too advanced period of real cancer.

The following conclusions are perhaps correct :—

1. That the operation is an easy one.

2. That excessive and dangerous bleeding is not a necessary accompaniment.

3. That in some instances, for the time over which subsequent observation has extended, cancerous ulceration of the cervix uteri has been cured by it.

The *dangers* are *hemorrhage*, either during or soon after the operation (M. Pauly says, fatal bleeding is not common after the lapse of forty-eight hours) ; *uterine or peritoneal inflammation ; malignant ulceration of the excised surface, or of any portion of the diseased structure* which may have been left behind.

The plug of dry tow, and the application of cold, as heretofore recommended, will probably arrest the bleeding, and where they entirely fail, the cautery may be resorted to. Bleeding, and the antiphlogistic plan, with calomel and opium, are the proper remedies for inflammation , and a fresh excision, or some of the various caustics for renewed ulceration.

Extirpation of the entire uterus.—On the removal of the whole womb, in case of inverson and displacement, this is not the place for any remarks. But both on the continent and in this country, the *cancerous* uterus has been extirpated from the

pelvis by the knife. The former operation is easy, and comparatively safe; the latter difficult of performance, highly dangerous, and almost uniformly fatal.

Of Dr. Blundell's four cases, three died shortly after the operation, and the fourth and most successful, within twelve or fifteen months. The preparation of the rectum and bladder in the last example, now in Guy's Museum, shows how ably and safely the operation was completed, and how well the parts cicatrized; but it also proves how difficult, and nearly impossible it is, to form an accurate estimate of the extent of the malady and the risk of its return. Although the diseased viscus was wholly taken away, the rectum became the seat of malignant disease, and the patient died in the Hospital from invincible constipation.

Velpeau has collected twenty-one instances of removal in twenty years, and there is not amongst them one instance of permanent cure. It seems unnecessary to observe, if circumstances, which I can scarcely believe, *ever* justify this frightful operation, that they must be nearly the same as those which limit the removal of the cervix. Especially ought the malady to be confined to the uterus; the pelvic glands, the rectum, the bladder, and the ovaries being free from its ravages; and there should be such a condition of the general health as warrants so serious a surgical operation. Its great danger is the *shock* to the constitution. This may be judged of from the fact, that only one out of Dr. Blundell's four patients rallied. The other three died before they had at all recovered from its effects; and Madame Boivin remarks, that out of nineteen cases, most of them died on the second, or on the third day at the latest; some in a few hours, or even a few moments, after the extirpation.

I shall annex the history of Mrs. Moulden's case, and the account of the operation as furnished to me by Dr. Blundell himself.

"Mrs. M., aged 50, of grey eyes, tranquil disposition, broad in her make, and disposed to obesity, was seized with offensive discharge from the vagina, soon followed by eruptions of blood in large quantity, so that according to her own report, frequent

faintings were produced, and the blood occasionally sank through a bed about twice as thick as a sofa cushion, collecting on the floor; and day after day, for months together, with little intermission, one or two pints of blood were discharged.

"Although Mrs. M., in her general conversation, is by no means given to hyperbole, it seems evident that she must have greatly overrated the quantity of these daily bleedings. Certain, however, it is, from her repeated and considerate declarations, that very large quantities of blood were lost during a period of many months; and though, with the exception of some small œdema of the legs, there were no signs of general dropsy, the paleness, coldness, and weakness, and the frequent attacks of faintness or complete delirium, showed pretty clearly that much vascular inanition had been produced. In other particulars the patient's condition was not altogether discouraging; for the bowels were regular and the appetite was occasionally good; and the appearance, though cachectic and perfectly similar to that of other women perishing under malignant ulceration of the uterus, was not such as to indicate a constitution wholly unfit for surgical operation.

"The woman having been under the care of three or four different practitioners before I saw her, I deemed it proper to examine immediately with great attention; when I found that the womb was moveable, and about as large as a goose's egg; that its mouth was broad, open, and of cartilaginous hardness; that it manifested the usual marks of malignant disorganization, in which also about one-fourth of the contiguous vagina was involved; and, further, that on the surface of the diseased mass was formed an ulcer, about as broad as a shilling. The adjacent structures appeared to be healthy enough; the bladder and rectum were sound, the inguinal glands were not enlarged, whence it was presumed that the lumbars were perhaps healthy; the ovaries could not be felt to exceed their ordinary bulk, and there evidently was no tangible enlargement of the liver, spleen, kidnies, or omentum, all of which were examined with the nicest care. The breathing was easy; the pulse, various in its frequency, ranged between 115 and 120 in the minute; and the patient, though certainly very much debilitated, had sufficient

remains of strength to walk to my house (the distance of a furlong), though not without considerable difficulty. To be short —it seemed clear at this time, that the case was ulcerated carcinoma of the uterus, as it is called, and that extirpation was the only remaining remedy.

"The bowels having been cleared, and the patient being resolved to submit to the operation, on the 19th February, 1828, I determined to remove the diseased parts without further delay. For this purpose, having placed the woman in the obstetric position usual in this country (on the left side, I mean), close upon the edge of the bed, with the loins posteriorly, the shoulders advanced, the knees and bosom mutually approximated, and the abdomen directed a little downwards towards the bed, I began the operation.

"I commenced by passing the index and second finger of the left hand to the line of union between the indurated and healthy portions of the vagina, and then by taking the stem knife in my right hand, I could at pleasure lay the flat of the blade upon the point of these fingers, and urge the point of the instrument a little beyond the tip. The apex of the forefinger being in this manner converted into a cutting point, by little and little I gradually worked my way through the back of the vagina towards the front of the rectum, so as to enter the recto vaginal portion of the peritoneal cavity, frequently withdrawing the stem scalpel so as to place the point within the tip of the finger; and then making an examination with great nicety, to ascertain whether the vagina was completely perforated.

"A small opening having been formed in this manner at the back part of the vagina, through this opening the first joint of the forefinger was passed, so as to enlarge it a little by dilatation and slight laceration. This done, I proceeded to make an incision transversely, that is, from hip to hip; for this purpose, carrying the finger with its cutting edge from the opening in the vagina already made, to the root of the broad ligament on the left side, so as to make one large apperture. I then took a second stem scalpel, having the incisory edge on the opposite side of the blade, and laying this instrument on the forefinger as before, in such a manner, however, that the cutting

edge lay forth on the other side of the finger, I carried the finger, thus armed, from the middle of the vagina, where the former incision commenced, to the root of the broad ligament on the right side, so that the diseased and healthy portions of the vagina behind became completely detached from each other. The back of the vagina, then, having been divided in this manner, I urged the whole of the left hand into the vaginal cavity, afterwards passing the first and second fingers through the transverse opening along the back of the uterus, this viscus lying, as usual, near the brim of the pelvis with its mouth backward, its fundus forward a little elevated just above the symphysis pubis.

"This manœuvre premised, taking a blunt hook, mounted on a stem eleven inches long, I passed it into the abdominal cavity through the transverse opening, and, with little pain to the patient, pushed it into the back of the womb near the fundus, and then drawing the womb downwards, and backwards towards the point of the os coccygis, as I carried the fingers upwards and forwards, I succeeded ultimately in placing the tips over the fundus in the manner of a blunt hook; after which, by a movement of retroversion, the womb was very speedily brought downwards and backwards into the palm of the left hand, then lodging in the vagina, where at this part of the operation the diseased mass might be seen distinctly enough, lying just within the genital fissure. The process of removal being brought to this point, the diseased structure remained in connexion with the sides of the pelvis by means of the Fallopian tubes and broad ligaments, and with the bladder by means of the peritoneum, the front of the vagina and the interposed cellular web, parts which were easily divided, so as to liberate the mass to be removed.

"The broad ligaments were cut through, close upon the sides of the uterus, and in dividing the vagina, great care was taken to keep clear of the neck of the bladder and the uterus.

"The operation was facilitated by previous child-bearing, although, notwithstanding the discharges, there was little tendency to prolapsus uteri. Though the womb had bled so freely before the operation, owing to the weakness of the circulation

and other causes, yet not more than four or five ounces of blood were effused during its progress, the greater part coming away when the diseased structure was detached from the bladder and vagina in front. The pain was not greater than that of an instrumental delivery, nor perhaps so great, nor did the patient require to be at all confined. The principal suffering was experienced when the vagina was divided behind, and when it was dilated by the introduction of the hand. There was no decided collapse when the peritoneum was first laid open, the intestines approached the aperture, but did not protrude; after the operation the sides of the vagina collapsed, and the aperture above seemed to be covered by a retroversion of the bladder. An indurated portion of the left side of the vagina, as large as the first joint of the little finger, was separately detached by the knife after the completion of the rest of the operation. The pulse was distinct enough in the wrist during the greater part of the time; but when the diseased portions had been completely removed, on the occurrence of the hemorrhage before mentioned, the beat of the radial artery was lost for about five minutes, the respiration being very feeble, and the patient lying, as after large floodings, very quiet. When brought to greater perfection, the method of operation will probably not occupy many minutes; but in this instance, that it might be done more safely, it was performed very slowly, and like some deliveries by the forceps, it required more than an hour for its completion. It was not necessary in this case to vary the posture, the horizontal position being maintained throughout. The first incision was made at four o'clock, and the extirpation was finished by a quarter past five. Two ounces of gin and water were given during the operation, and the same quantity after its termination, with sixty drops of the tincture of opium. Previously to the operation the pulse was 120, tongue clean and rather white, and her manner composed; during its continuance, and when at the height of agitation, it arose to 140 in the minute, when she became faint, and approached nearly to a state of asphyxia. Two hours subsequently to the operation she was lying comfortably as if asleep, the whole body was warm, the pulse 92, and distinct, and the manner and

countenance encouraging. On the third day there was great agitation and vomiting, and the pulse 112, without any obvious cause. Considerable solicitude was now entertained respecting her; but, happily, every uncomfortable symptom disappeared when the bowels were freely relieved. For ten days there was a reddish-brown discharge, and then for eight or nine days more it assumed a muco-purulent character, the flow from the vagina ceasing in a great measure on the nineteenth, and altogether on the twenty-first day. Shooting pain was more or less felt during the three first weeks after the removal of the uterus, on the left side, especially where the crural nerve is crossing the brim of the pelvis, under Poupart's ligament. It is now five months since the parts were extirpated, and the patient is fat and well, and designs to return to her husband. The interception of the access to the ovaries is a complete security against extra-uterine impregnation. The head of the vagina is closed by the bladder, which lies upon it. In future cases, it will, most probably, be necessary to vary the method of operating according to circumstances, nor is the operation here given proposed to the profession as the best. That its principal parts should be rendered visible is much to be desired, nor do I conceive this to be impracticable. Let us remember what has been done for lithotomy, amputation, and the operation for aneurism."

SIMPLE ULCERATION OF THE CERVIX AND OS UTERI.

History and Symptoms.—I have already remarked, that there may be enlargement and hardness of the whole uterus, and especially of its cervix, without malignancy, such being the result of congestion and inflammation. A similar observation is equally true of ulceration, which frequently arises from the same causes, and throughout its course, even when protracted, never assumes the peculiar characters of cancer, cauliflower excrescence, or corroding ulcer. It is proper, therefore, that this simple ulceration be first understood, that we may be enabled accurately to distinguish it from the almost incurable

maladies for which it may be mistaken. It is an extensive subject, requiring to be treated practically.

There can be no doubt that ulceration of this portion of the uterus exists unnoticed, and that cicatrization takes place without remedies. Slight syphilitic sores, and the abrasions consequent on marriage and excessive intercourse, come within the scope of this statement. Neither can it be doubted that ulceration, arising from instrumental deliveries and from abscess, the consequence of injuries, often escape medical attention. Women, in this country especially, prefer any amount of endurable suffering to an examination, which, even when allowed, is often uselessly made, if the finger, without the speculum, be alone employed. It is almost impossible otherwise to explain the sufferings through many weeks, induced by coition; the burning and painful sensations about the upper part of the vagina, and the sanguineous and purulent discharges so often complained of. These we cannot treat efficiently, because we are forbidden to investigate them properly, and yet they frequently recover.

An examination by the *speculum* will reveal, even in these simpler and comparatively safe cases, ulcerations of varying extent and severity.

1. Sometimes they are mere erosions of the mucous surface, redder than the sound membrane around, and the edges sharp and well defined. Such are not unfrequently seen after acrimonious leucorrhœa, the consequence of high living and excessive sexual indulgence.

2. The ulcers of the cervix are occasionally numerous, varying in size from a small pea to a sixpence or a shilling, the larger ones being evidently formed by a coalition of the smaller; and long neglect may have induced roughness of surface and greater depth; and the colour may be a darker red. In such sores there is commonly pain on pressure, and the speculum causes bleeding. The discharge, too, may be sanguineous and of a yellow or dirty-white colour; but usually, where there is no want of cleanliness, without fetor.

3. There is an ulceration following protracted local irritation, from pessaries, sponge, and *contrivances to prevent con-*

ception, in which the cervix is enlarged and spongy, with increased heat and great tenderness on pressure, and an open state of the os. In such cases, bleeding frequently occurs.

Every remark now made may be verified in simple ulceration, attendant on entire procidence of the womb. We all know the varying extent and depth of such ulcers, and how extremely difficult they are to heal. I believe, that partial inflammation of the cervix, resulting in simple ulceration, is by no means uncommon; an opinion which will be confirmed by the greater prevalence now than formerly, of examinations by the speculum. I am not aware that temperament has much, if any, influence; but I have rarely if ever seen the cervix ulcerated prior to natural or vicious sexual intercourse. Prostitutes, as might be expected, are obnoxious to it.

The *Symptoms* are somewhat equivocal, at least they are not exclusively attendant on a state about to terminate in ulceration. If, however, where the causes likely to produce it are known to have been in existence, there is almost constant pain in the loins, with sensations of heat and forcing about the anus, dragging and weight in the groins, abdominal pain and distension, occasional vaginal hemorrhage, shiverings, and a quick pulse,—an examination ought to be made.

Causes.—There is no cause more frequent than cold. Insufficent clothing of the lower part of the person; wet feet during menstruation; the improper use of strong astringent injections, bougies or other foreign bodies; local injury, however inflicted, and many other circumstances may be included.

Diagnosis and Pathology.—It is desirable to be able to distinguish common from malignant ulceration of the cervix, and certainly the diagnosis is generally easy. The rapidity with which this simple ulceration occurs, plainly points to inflammation as its essential condition. There is none of the induration produced by malignant deposit; no immobility, no fetor and pain at all like what we observe in cancer.

Its more stationary character and limited extent, the absence of large hemorrhages, the comparatively trivial constitutional effects, and the nearly inodorous discharge, sufficiently prove

that it is not *corroding ulcer;* nor, in most instances, will it be difficult to determine, whether there be a *syphilitic* taint about the affection. The moral character of the patient and of her husband; the freedom from urethral discharge and inguinal swelling; and the absence of the distinguishing conditions of chancre will have their due weight.

Treatment.—This will of course be determined by the stage and severity of the affection. If the patient has been so early examined as to induce the belief that although ulceration does not exist, it may yet occur, venesection may in some instances be advised. Local depletion, however, will be indispensible, and the blood may be abstracted by cupping from the loins or about the sacrum, or by leeches to the perineum and vulva, the effect being increased by the hip-bath. In all such instances, excepting the cervix is exceedingly painful on pressure, or so enlarged, tense, red, and shining, as to lead to the conviction that an abscess is about to burst, leeches directly applied to it, or scarifications as heretofore recommended, are far more efficient. A few weeks since I saw a case where matter had formed, the cervix being enormously enlarged, hot, and indurated. I had previously wished to scarify, but after keeping the patient in the slipper bath at 100° for nearly an hour, I punctured the most projecting part, and more than a table spoonful of pus escaped. There was rather extensive subsequent ulceration, but the healing was rapid and quite satisfactory. An injury from a pewter injecting syringe was the cause of suppuration.

Whether local bleeding be practised or not, the recumbent posture, hip-baths of salt water or medicated with poppy and conium, should be diligently used. Mild aperients, a spare diet, and sexual abstinence must be enjoined. Where the ulceration is slight, astringents, or three or four drachms of the oxide of zinc, in six ounces of distilled water, used as an injection three or four times daily, will often cure. Various ointments may be recommended, and mercurial cerates have healed many ulcerations where there was no syphilitic taint. It will be inferred from what I have already said, in the chapter on

Cancer, that I fully concur in the great utility of cauterizing these diseased surfaces.

M. Lisfranc, generally so daring, seems inconsistently timid about the application of caustic. He regards "engorgement" of the uterus, and inflammation of the vagina or cervix, as events sufficiently important to forbid its use; the very affections which I have cured by cauterization, when other remedies had entirely failed. M. Lisfranc, with equal want of judgment, prohibits it where there is subsequent pain; while with more reason he thinks that its application should be interdicted for four or five days before and after menstruation. The *protonitrate of mercury* has succeeded better in his hands than any other caustic. Jobert employs the *pernitrate*, and Delpech the *acid nitrate of mercury*. After a careful examination of remedies and their effects, I find none more efficient than the *common lunar caustic*, of varying strength and accurately applied; the general health, and especially the condition of the bowels, require attention.

Several times within my knowledge, the happiness of married life has been seriously interfered with by the pain "in coitu" consequent on slight or more severe ulceration of the cervix. Such instances are, for manifest reasons, long neglected; nor is it till the evil becomes really almost intolerable, that an examination is permitted. Sometimes the cervix is only abraded, its mucous surface being so irritable and tender, that every repetition of intercourse brings with it a repetition of the abrasion, bleeding, and pain. Practitioners will, I know, recognize in this brief allusion, the facts of similar cases of their own, long neglected, because not thoroughly examined. Many of these I have healed by frequent and slight cauterization with the nitrate of silver, and in some of them, the cure has been attended by immediate restoration of sexual feeling, which had been long entirely absent. In a case of this kind, where the lady came from a foreign country to England for advice, the whole disease consisted of a pustular ulceration, the invariable and immediate consequence of intercourse. The harmony of the parties had been destroyed, and the utmost incredulity was evinced when I stated, that there would be but little difficulty

in the cure. The recumbent posture, the *lunar caustic* and *oxide of zinc*, with sarsaparilla and good diet, effected permanent improvement; and when I last heard of the patient, then living in Hungary, she was perfectly well, and about to be confined.

Far more frequently than is generally supposed, painful intercourse, and eventually sterility and broken health, are dependent on acute and chronic inflammation and congestion of the cervix. Such cases from time to time fall under my care; and although most of them are curable by proper treatment, often have I to regret, that a delicacy of feeling which can hardly be too much commended, and a want of due appreciation of its importance by the attendant practitioner, have together prevented that examination, without which the cause of the malady remains unknown, and the only effective treatment neglected. Not unfrequently do such evils continue for years, till disappointed hopes of cure induce a permission properly to investigate the disease. I trust that the suggestions now made will be sufficient, and that I shall, for manifest reasons, be excused for not dwelling at greater length on a class of cases avowedly not uncommon, and exceedingly important.

CORRODING ULCER OF THE UTERUS.

DEFINITION.—*An ulcer of granular surface, commencing at the cervix, rarely of large size, but destroying life by a corroding or eating away of the uterus, even to its fundus, and occasionally implicating the bladder, vagina, and rectum. There is less pain than in cancer of the womb, from which it also differs, in there being no indurated deposit, no immobility, and no fungoid growths in the seat of the ulceration. It is malignant, and, except at its early commencement, incurable.*

History, Symptoms, and Pathology.—Dr. John Clarke of London has the merit of being the first who accurately described this peculiar and dangerous variety of uterine ulceration; and I am

not aware that subsequent writers have made any important additions either to its history, pathology, or treatment. It is a rare disease. For one case of corroding ulcer we meet with ninety or a hundred of cancer of the uterus; and I think there has not yet been received into the ward appropriated at Guy's to female sexual diseases, one example of the malady. On several occasions disease of the cervix uteri has been so mistaken; but on examination, the ulceration was found to be carcinomatous; and out of five hundred recorded histories of female sexual maladies ine that Institution, I do not find one of this affection.

It is said especially to attack women of spare and lymphatic temperament, and rarely before forty years of age. In both these statements I concur; although it has been met with much earlier. I have seen but two cases during twenty years. In both, menstruation was declining, and both were considerably alleviated by treatment. In one, life was prolonged for nearly five years after the first appearance of the ulcer, there having been an interval of complete inaction of two years. In the second, the repeated application of caustic delayed the fatal event for a considerable time. Excessive bleeding terminated the life of one of the patients; and the other gradually sunk under the prostrating effects of the disease. In neither could an examination after death be obtained; but in both, the ulceration had extended beyond the cervix.

The symptoms so closely resemble those of cancer, that the diagnosis would be difficult, if the speculum were not used. Still, there seems to be something more hopeful about corroding ulcer. It advances more slowly; remedies have for a time more influence; the discharge, the pain, and other inconveniences are generally less. Sometimes, however, in the interval of the hemorrhages, the discharge is peculiarly offensive; and even in the absence of bleeding, I have known the patient distressingly annoyed for a few days, or even for several weeks by its acrimony and fetor. Pain and weakness in the back and loins are constant and distressing. Dr. Churchill, who has met with the disease more frequently than I have, says, that "in a few of the cases he has seen, no pain whatever was

experienced from the commencement; but the great weakness of the back was present in all."

Towards the close of the malady, the patient becomes extremely emaciated, the discharge increases, daily and almost constant fever exists; there is dyspepsia, diarrhœa for a few days, and then constipation; and eventually she sinks, either from exhaustion, or from hemorrhage; or the disease may invade the cavity of the peritoneum, and give rise to fatal peritonitis.

The *pathology* of the affection is not difficult to settle, if we are guided by its distinctive peculiarities. That it is the result of inflammation will be generally admitted; and that the inflammation is of *specific character*, appears equally undeniable. When examining it through the speculum, I have been struck with its close resemblance to lupus in external parts; and the inflammation and ulceration preceding and accompanying it, assimilates it most closely with the same chronic and destructive process. Hereafter, when these concealed diseases come to be examined by the eye, as well as by the finger, their early changes and distinctive peculiarities, will be better understood. We shall then discern more clearly the analogy between corroding ulcer and lupus.

Diagnosis.—The finger and the speculum make the diagnosis easy. Already, in the definition, the main points of difference between cancer and corroding ulcer have been pointed out. They consist in the absence of carcinomatous or other deposit, either before or during the progress of the malady, so that when the ulcer is examined through the speculum, its surface will be seen to be red, rough, and granular, with a distinct edge or line marking its extent. Adjacent to this, the uterine structure will be free from induration. Let the uterus so diseased be examined after death, and these statements will be strictly verified; for, up to this line of demarcation, even where the disease has nearly reached the fundus, the neighbouring structures will be found perfectly healthy.

The consequence is, that unlike what occurs in advanced cancer, where, owing to the new deposits and carcinomatous growths, the cavity of the pelvis is filled, and the uterus becomes fixed and immoveable; in corroding ulcer, especially in

its last stages, there is an empty space in the pelvis, and the remaining portion of the womb is especially moveable.

Prognosis.—Any promise of cure must be made with caution. It has been already remarked, that corroding ulcer is slower in its progress and more amenable to remedies than cancer; but the more favourable opinion hence to be deduced, must still depend on the period when the ulcer is discovered. If it has not been detected till a great portion of the cervix has been destroyed, an unfavourable prognosis must of course be given; and if, even at its commencement, the ulceration is but slightly controlled by cauterization, no expectation of cure can be held out.

Treatment.—This is nearly the same as in cancer, only, that if early commenced, it may be anticipated that a less painful result will ensue. It has been remarked already, that corroding ulcer seems to be more a local malady than carcinoma; and hence greater benefit may reasonably be expected from topical remedies. The lunar caustic produces beneficial effects. It relieves pain and diminishes the quantity as well as the fetor of the discharge. If, notwithstanding this and other applications, the disease advances, palliation is to be attempted by opium, hyoscyamus, belladonna, and the various remedies mentioned when treating of cancer.

It has been suggested, that excision of the cervix is the more appropriate remedy; seeing that the ulcer at its beginning is not often complicated with extensive disease of the neighbouring glands, or very decidedly with the cancerous cachexia. Doubtless, the probability of success depends much on this, and on the unimpaired health of the sufferer; and although it is to be feared that the incised edges of the cervix may take on the same destructive action, still, favourable circumstances existing, the operation would certainly be quite justifiable.

CAULIFLOWER EXCRESCENCE OF THE UTERUS.

DEFINITION.—*A morbid growth of the os uteri, consisting of minute ramifications of arteries, connected by a flocculent tissue, and covered with a secreting membrane. Its surface has somewhat of the granulated feel of the brocoli, it bleeds on slight handling, and almost constantly pours forth a watery discharge. It varies in size, is nearly painless, and proves its malignancy by returning after removal, either by the knife, ligature, or caustic.*

History, Symptoms, and Pathology.—This is a rare disease; not so uncommon as corroding ulcer, but far less frequent than cancer. I have seen seven or eight cases, and I have operated by ligature on three or four. It may arise at any time after twenty years of age, probably earlier, if hemorrhage, childbirth, or excessive intercourse have previously occurred. It does not seem that temperament exerts any predisposing influence. Women who have not borne children, and virgins, are not less obnoxious to its attack than mothers, or even than women of abandoned habits. It differs widely from corroding ulcer and cancer, in the absence of pain; nor is its progress very rapid, excepting where there has been great neglect, or when the sufferer is of unusually feeble constitution.

Attention is first excited by the inodorous and almost constant watery discharge. For a few weeks this may not be much regarded; but its continuance, and especially its increasing quantity, and its being streaked with blood, produce alarm, and an opinion is anxiously sought. Lately, I was assured by a sufferer from the malady, that for some months after its commencement, she was compelled to change her linen twelve or fifteen times daily. Such a loss is sufficient to undermine the strongest constitution; but even this warning I have known to be neglected, till hemorrhage during or after intercourse, or in the effort to empty the bowels, had fully convinced the patient that there was something seriously wrong. An examination in

this state will lead to the discovery, that there is a tumour of large or small dimension attached to the os uteri, without the firm feel of polypus or scirrhus, but granular, and communicating to the finger a sensation very similar to what would be imparted by the uterine surface of the placenta. There is considerable difference in different excrescences. The surface is not always granulated; if the growth be large, it loses the more compact feel of the brocoli, and hangs in the vagina, there being a mass of shreddy flocculi, very loose and soft at their lower extremities, but becoming firmer and more solid as they approach the os uteri, from the circumference of which their growth has commenced. No pain is produced by such an examination, but it is rarely made without bleeding. The progress of the disease is exceedingly variable. In some constitutions, its exhausting effects are long in being realized, the losses being repaired very quickly: the appetite does not fail, the strength holds out extraordinarily, and it is long before emaciation occurs. Still women, even of the firmest constitutions, cannot long struggle against its baneful effects; and they die, worn out by the constant drains of the discharge and the hemorrhage. The great majority, if the growth be not removed, sink more rapidly; and few women live beyond two or three years from its full development. The attendant evils are much less than in cancer. The slight pain has been already noticed, and the discharge has scarcely any fetor; nor is there more than trivial obstruction to the passage either of the fæces or urine. Thus, while death in the one disease is often preceded by sufferings which induce a desire for its occurrence; in cauliflower excrescence, its approach is gentle, and life is gradually and almost painlessly extinguished.

Some pathologists have doubted the malignancy of this growth, and have pointed to its close resemblance, at its commencement, to erectile tumour. They have further urged its slow progress, its shrinking and temporary disappearance during life, and the slight disorganization after death, the absence of induration and the healthy condition of neighbouring structures, and the alledged cure in one or two instances, as confirmatory of such a view. Still the disease returns, and

after several removals, the growth re-appears, the secretion is watery, and although, unlike cancer, it keeps within the limit of the uterus, it would not be difficult to prove, that it may become the seat of carcinomatous or encephaloid deposit. In a case I watched some years ago, two portions, at different times, had been removed by ligature; and on the third reproduction, there was evidently some extension of the mischief to the cervix, and I could distinctly trace carcinomatous deposits within its cavity. Under these circumstances, I declined any further operation, and death occurred in a few weeks; but, unfortunately, I could not obtain a view of the parts. Professor Simpson corroborates these opinions; and in a brief and good sketch of the malady, he makes the following observations:—"We have a preparation in our Museum of a cauliflower excrescence which we removed a short time ago by excision of the cervix uteri. The growth has the small granulated character very well marked upon its surface. On rubbing a portion of the recent tumour between the finger and thumb, it readily broke down, and left a kind of vascular or cellular frame-work; but, after immersing for some time the mass of the tumour in an alcoholic solution of corrosive sublimate, it presented to the touch and sight an appearance exactly resembling that of cerebral matter hardened by the same means, with the exception only of showing a number of small cells on the surface of the section."

I have several times seen the tumour through the speculum, and its colour has never been exactly similar. If the examination be made soon after a profuse hemorrhage, it will not be of a bright red, but of a pale flesh-colour; if, on the contrary, it be seen early, before the watery and sanguineous discharges have drained away the richer and colouring materials of the blood, it will have a pink hue.

All attempts to inject the tumour have failed, nor are preparations numerous. Some years since I lost, through the carelessness of a nurse, a very fine specimen, which I had removed by ligature. The mass was large, as, before the operation, it reached to the external parts; but it had entirely lost its original, distinct feel. I have never known the vagina implicated,

nor have I seen any extension of the malady beyond the channel of the cervix.

Diagnosis.—It is not difficult to distinguish cauliflower excrescence from hard or fibrous tumour, or from polypus; the absence of induration and a peduncle, so characteristic of the latter diseases, and the softness, granular surface, and watery and sanguineous discharges,—circumstances almost always associated with the excrescence,—will serve for a correct diagnosis.

It is less easy to distinguish it from the fungoid growth of ulcerated cancer of the cervix. Many patients have been sent into Guy's under such a mistake. But even here, the absence of watery discharge, the previous and accompanying induration, the milder constitutional symptoms, there being little pain, and instead of the irritative fever of cancer, there being no more than anæmia and its consequences, point to the right opinion. On examination, too, the distinctness, mobility, and softness of the growth, and its peculiarity of origin from the os, will prevent error.

It may be conceived that, where pregnancy co-exists, and where an examination is not made till the time of labour,—supposing the patient, which is not likely, to have reached the full term,—there might be at first some trouble to distinguish the growth from the edge of the placenta. Where, however, there was no pregnancy, the absence of the consecutive symptoms of that state, added to the positive indications of the disease, would suffice for the diagnosis.

Dr. Gooch has alluded, in his usual terse and excellent style, to the difficulty of determining whether vaginal tumours be or be not malignant; and he says, "that he believes no man can tell infallibly by touch whether a tumour in the vagina is a malignant excrescence, which is to grow again, or a benign one, which, if removed, will never return." (Gooch, Diseases of Women, p. 308.) This is true, and yet he would have been the last physician to have overlooked or to have mistaken the characteristics of cauliflower excrescence, in reference to which the remark was made, and where they existed, to have given so questionable an opinion. If the dogma of so great a man was

always taken in its true meaning, and induced caution only, it would do good; but if carelessly adopted, it is quite as likely to prevent the pains-taking so necessary, and generally so efficient in the diagnosis of uterine diseases. Had Dr. Gooch limited this observation to the diagnosis of tumours resembling cancer of the cervix, it would have been of greater value, because truer and more pertinent; but, as applied to cauliflower growth, it wants point, as the power of reproduction, "the growing again" of this disease, is one of the best established facts in its pathology.

Prognosis.—As to ultimate recovery, there is only the very slightest chance. I have never seen such an instance. But how long life may be protracted, will depend on original strength of constitution, and on the determination and means of the individual strictly to follow out the prescribed treatment. If the disease be early ascertained, and it arise from a part only of the os uteri, instead of from its whole circle; if by sexual abstinence, astringent injections, regulated diet, and good air, the watery discharge and the bleedings can be controlled,—then several years, four, five, or six may be added to life. But such steady attention to prescribed rules is seldom secured; and it does not often happen, after removal, that more than a year or two elapse before the tumour grows again. The second operation takes place under less favourable circumstances than the first, there having been in the interval considerable draining and consequent exhaustion; and it is by no means rare for fever and general debility of system to set in, and the sufferer soon sinks. In two of my own cases, there were nearly four years between the beginning of the malady and death. One patient performed her usual domestic duties long subsequent to the operation; and in a most interesting instance detailed by Sir Charles Clarke (Vol. 2nd, p. 76), the disease lasted nearly ten years, two applications of the ligature having been made.

Treatment.—Whether we employ palliative treatment or attempt the more radical cure by ligature, caustic, or excision of the cervix, must in a great measure depend on the extent of the disease and the feelings of the patient. The remedies to check its progress, are those which prevent vascular determi-

nation and congestion of the uterus, such as abstinence from sexual intercourse, the recumbent posture, the avoidance of every kind of excitement, and a mild and unstimulating diet. These means must be aided by an aperient, but not a purged state of the bowels; by the douche-salt bath over the back and shoulders; by occasional and small abstractions of blood by cupping or leeching from the loins, hypogastrium, or perineum; by sitting in the cold alum hip-bath an hour morning and evening, taking the precaution to secure the entrance of the fluid into the vagina; and by an efficient use of astringent injections.* These measures, especially the injections, tend to maintain and restore the tone of the sides of the vagina, and thus perhaps, by compression of the growth, its early increase may be somewhat prevented.

* The following formulæ are in addition to those which will be found at page 206:—

℞ Aluminis purif. ʒiv.
Tinct. Kino, ʒiv.
Aquæ distill. ʒxv ss.
M. ft. Injectio.

℞ Cupri Sulph. gr. xxx.
Tinct. Secalis Cornut. ʒii.
Aquæ distill. ʒxiv.
M. ft. Injectio.

Sir Charles Clarke.

℞ Decoct. Quercus, ʒxv.
Tinct. Catechu, ʒss.
Aluminis, ʒii.
Zinci Sulph. ʒj.
M. ft. Injectio.

℞ Gallarum, ʒss.
Aquæ distill. ʒxvii, coque ad ʒxvj et
Liquoris Colati, ʒxvi. Adde,
Spir. Roris Marini, ʒss.
Aluminis, ʒiij.
M. ft. Injectio.

In several of my patients, the membrane of the vagina was so irritable, that many hours of pain followed the use of these astringents, rendering it necessary to diminish their strength, and to add opium, conium, or poppy. Often it will be important to leave them off for a time, and to inject cold water and opium after their use.

It has been objected to the more radical means, that they are only temporarily beneficial, and that the ligature and caustic may provoke irritation, and thus lead to the more rapid reproduction of the malady. Such conditional and doubtful consequences ought not to have weight. Without decided treatment, life cannot be long preserved; and there are many examples now on record, proving that several years, and with comfort and modified enjoyment, may by such means be secured.

Case 68.

REPORTED BY DR. LEVER.

Jane M——, æt. 36, married, and an out-patient of Guy's Hospital, was, on examination, discovered to have cauliflower excrescence of the os uteri of considerable size, without pain, and bleeding on the slightest touch. The watery discharges and the occasional hemorrhages had greatly weakened her, and produced emaciation.

Tonics and astringent injections were ordered. During the treatment she became pregnant, but aborted at the fourth month; the hemorrhage was very profuse, and the exhaustion alarming.

In six months she again became pregnant, having strenuously refused to permit any portion of the growth to be removed by ligature; and about the thirteenth week she again miscarried, suffering still greater loss of blood. From this hemorrhage she never thoroughly rallied, and after lingering some weeks, she died.

Dr. Glasspool assisted at the inspection. The body seemed to have been deprived of nearly all its blood, and presented a most anæmiated and emaciated aspect. The uterus was not larger than natural, nor was there anything unusual about its condition beyond extreme flaccidity of structure and paleness. There was nothing remaining like the full and firm excrescence which had been so often felt in the lifetime of the patient; but a loose, dirty, white, flocculent and membranous mass was found attached to the circumference of the os uteri, and to a portion of the inner membrane of the cervix. The pelvic glands and the vagina were healthy.

Case 69.

In April 1835, I met Mr. Callaway, and Mr. Smith of Tower Hill, in consultation on the following case:—

Mrs. ———, æt. 40, married, and the mother of several children, had, till within the last two years, been remarkably healthy. During the whole of the time she was having children, she had scarcely suffered a day's indisposition, and her activity and buoyancy of spirits had been quite remarkable. I was told, she had been very stout, and even now, she was by no means thin.

Her own report is, that about eighteen months since, she first perceived unusual moisture about the pudendum, and slight watery discharge from the vagina; and although careless about it for a time, she was soon compelled to guard against its constant escape. She did not, however, seek medical advice, till the secretion became daily greater, sometimes offensive, and not unfrequently followed by eruptions of blood. By these occurrences she was incapacitated for her usual duties; her digestion was deranged, and her strength seriously impaired. There was no local pain, but sexual intercourse was frequently followed by hemorrhage.

Astringent injections, tonics, a regulated diet, and other precautionary measures had been employed; but after the time of my first visit, April 3rd, 1835, the disease was daily getting worse. On examination, I found the vagina filled nearly to its entrance, by a growth having a broad base, and arising from a large portion of the circumference of the os uteri. Its surface, although rough, was not altogether granulated, it was much softer than polypus, and seemed to be made up of a congeries of vessels, held together by interposed tissue. During its progress, Mrs. ——— said, that smaller or larger masses of granulated fleshy substance, had frequently come away; but that her principal distress arose from the vast and constant escape of watery fluid, and the frequent and exhausting hemorrhages. There was weakness of the back, but it scarcely amounted to pain; and the stomach had of late been so irritable, that her food was often vomited soon after it was taken.

In a few days I applied a ligature round the growth; but to my astonishment, although I tightened it night and morning, it was not till after the lapse of more than a week, that the flocculent mass, and the canulæ came away. Unfortunately this specimen of the disease

which was larger than a Seville orange after the shrinking produced by its having been tied, was thrown away by the nurse, and thus I lost the opportunity of preserving the best cauliflower growth I had ever seen.

The sequel of the case was encouraging. The watery discharges and the bleeding did not return for nearly two years; and I have reason to believe, if proper care and self-denial had been exercised, a much longer period of immunity would have been secured. As it was, by an operation without pain or danger, life was considerably and comfortably prolonged.

After this time, the exhausting losses recurred; dropsy supervened, and the patient died within three years of the removal. Circumstances prevented my having any management of the second disease, and an examination of the body could not be obtained.

OCCLUSION AND RIGIDITY OF THE CERVIX UTERI.

These maladies are too frequent and important to justify their omission from a practical work; and although the operation, which in extreme cases is indispensible, may be regarded as one entirely obstetric, the practical considerations justifying incision, are of a kind to demand discussion and explanation. The safety of the procedure in most cases of entire closure, and in some of the rare examples of extreme rigidity of the os, at the time of labour, is undoubted. It is, however, essential to be explicit in defining the cases where such treatment is required, that a rash and unwarranted use of the knife may be avoided; and it must also be understood, that the practitioner, before such a procedure is determined on, ought to be fully convinced that the patient's safety can be better secured by this than by any other method. It may, too, be observed, that the medical attendant should not, except when a consultation cannot be obtained, adopt the plan now proposed on his own responsibility. When the operation is sanctioned by others, should the event be unfavourable—which will rarely happen if the incision be practised sufficiently early—not only will the operator's own feelings and reputation be spared, but the immediate relatives of the patient will entertain no doubt as to the propriety of the practice.

There is sufficient novelty about both the points under discussion, to justify the remarks I am about to make; and if I shall succeed in throwing additional light on these perplexing cases, my purpose will be fully answered. Happily, entire closure, and such extreme rigidity of the os as to preclude the birth of a child, if help be not afforded, without more or less extensive laceration, are rare. Still, two such examples—the one of closure, and the other of rigidity—where incision has has been successfully practised, have fallen under my own observation within a short time. Such may again occur; and I shall therefore be excused if I occupy a few pages in bringing the history and treatment of such instances of morbid structure before the profession.

It may, I think, be shown,

1st. That incision is the safest remedy, where the os is in a state of firm and complete closure; or, in other words, where the uterus, so far as its lower orifice is concerned, is imperforate: and,

2dly. That in examples of such extreme rigidity of the os, where, after hours of strong uterine effort, the power of dilatation is entirely absent, whether such rigidity arise from disease in the structural organization of the part, or has resulted from previous laceration and ulceration, incision is the best and safest treatment; far preferable to protracted and powerful dilatation of the os by the finger; or, on the principle of non-interference, to leaving the case to the natural efforts.

Examples of the entire closure of the os uteri at the time of labour are recorded by Dr. Nægele, junior, in his Thesis on "Conglutination of the Os Uteri," published at Heidelberg in 1835. And there is no paucity of allusion to them by other writers. It is well known, that, normally, this orifice is sometimes very small; at others, instead of a transverse chink —its most usual form—there is merely a diminutive circular aperture. In either of these conditions of the orifice, complete obliteration may easily be produced, by an amount of local inflammation following conception, which would not seriously interfere, either with the pregnancy or the health of the individual. It is important to bear in mind, that such closure may not be

attended by any other disease of the parts: the adhesion may be firm and complete, but there may be no scirrhous induration —no distinct nodule of hard substance; the neck of the uterus will be forced down by the pains; and the sensation imparted to the finger, on examination, during labour, will be quite natural, excepting only that no aperture will be found. There is therefore a marked difference, so far, between the cases of closure occurring as the result of adhesive inflammation, where the orifice is naturally unusually small, and the instances of occlusion which are the consequence of previous morbid deposit about the os and cervix, produced either by chronic inflammation, or occurring as the result of former laceration or ulceration. In the latter class of cases, where there is evident organic disease of structure, a long delay in the employment of venesection—and of the incision, if the bleeding fail—is not probable; whereas in the cases of simple but firm closure, where there is no other disease, delay is far more probable. It will be urged as extremely unlikely that there should be no os uteri; —that there is one, perhaps, but that, owing to obliquity, it is very high up posteriorly;—and that, being thus unnaturally situated, twenty-four, thirty-six, or forty-eight hours, or even a longer period, will be required for its development and dilatation. The unfortunate instances of occlusion recorded by various authors may be attributed to this very delay; and they show how necessary it is that every circumstance should be explained, and if possible removed, which may tend to mislead in a newly-observed and hazardous malady. Mr. North dwells at great length on malposition of the womb; and does not hesitate to express his belief, that most of the reputed instances of imperforate uterus were really nothing more than cases of anterior obliquity; and the names of Baudelocque, Desormeaux, Velpeau, Denman, and Dewees, are adduced as holding these opinions. For myself, I may say, that I have never met with any seriously protracted labours from obliquity; and I think I could mention many highly respectable writers, whose experience corresponds with my own in this particular. Allowing, however, to this supposition its full weight, it must be recollected, that every hour of urgent uterine effort

tends to rectify obliquity, if such be the cause of an undiscovered os uteri; and that if the pains are really powerful, and protracted for ten or twelve hours, the os uteri being still undiscovered, it may fairly be assumed that it is wanting, and it is time then to think of the dangers of uterine rupture and laceration. So far as my case and its continuation, so correctly reported by Mr. Tweedie,* can illustrate this point, it may be cited as an example of the facility of diagnosis, and of the safety of the treatment by incision. The error of the first operation consisted in its delay. From anxiety not to incise the uterus, if it could be avoided, the woman was permitted to incur more risk than was justifiable; and from the excitement and fatigue of the labour, the collapse was alarmingly dangerous; much more so than after the second operation, when, confirmed in a favourable view of incision by its previous success, the division of the parts was earlier resorted to, and the collapse was proportionally slight and transient.

There can be little difficulty in the diagnosis of instances of complete and firm closure of the os. When parturient effort is really established, the lower portion of the uterus, in the form of a tense and large globular mass, is generally forced down very low, sometimes so far, as nearly to reach the external entrance of the vagina. Thus a finger—if at all practised in these inquiries—detects an aperture, if there be one; and, if not, the spot where the os uteri, at the time of conception, had been.

A repetition of uterine action will afford abundant opportunities for careful re-examination; so that no apology for indiscreet and dangerous delay can exist. If, too, a spot shall be discovered—more depressed, and of different structure to the surrounding parts, indicating the site of the os uteri at the time of impregnation, it is impossible then to doubt about the nature of the case; and the only question remaining to be determined, is the precise method of relief.

It may be a matter of hesitation, whether bleeding to some ex-

* See Guy's Hospital Reports, Vol. II, p. 258.

tent—say, eighteen, twenty-five, or thirty ounces—should not precede the use of the bistoury.

In some critical remarks on my own case, in the "British and Foreign Medical Review," Vol. III, page 375, the writer says:—"Under the circumstances, we believe the incision into the cervix was justifiable; though we think it not impossible, that, had a free venesection been premised, and some further time given, an os uteri might have been found." From which opinion I entirely dissent.

Practitioners should be extremely cautious on both the points now alluded to—I mean, bleeding and delay. It would be difficult to justify a large venesection in cases of closed os, like those now described, where there was no other disease about the parts than the occlusion: if there were malignant deposit, a general scirrhous induration of the cervix, or cicatrices of cartilaginous hardness, the abstraction of blood in a case thus complicated would be highly judicious: and certainly, if there be so much doubt resting on any case, as to leave it a matter of question, whether there be an os uteri or not, venesection and delay are less censurable than the continuance of the doubt and uncertainty. If, however, the practitioner has decided that there is an occluded os, without other disease, and that the head of the child cannot pass till a way be made for its transit, nothing else than exhaustion and danger are to be anticipated from bleeding and delay.

I purposely avoid, in this place, more than allusion to those cases of occlusion of the os uteri complicated with marked and decidedly morbid altered structure. These examples are so closely connected with the cases of extreme rigidity, and so generally arise from the same causes—viz. organic disease, and the injuries or lacerations of previous labours—that it is quite proper to place them together.

Having abandoned all hope of discovering an os uteri by venesection and delay, there are two methods of remedying the closure of this important orifice:—

1. By such an amount of pressure by the finger, female catheter, sound, or bougie, as shall puncture or open the occlusion; and,

2. By incision, made by a bistoury or knife.

Dr. Nægele, junior, of Heidelberg, advocates the first of these plans, and condemns the use of the knife, except as a last resource, other means having failed. Dr. Waller has, in Vol. IV of Guy's Hospital Reports, furnished a case so treated.

When the occlusion is slight, depending on a thin membrane interposed between the margins or filling up the circumference of the os, similar to the membrane found between the adherent labia of female children, the finger, as recommended by Nægele, may produce a separation or orifice; or, if this digital pressure be insufficient, the catheter, sound, or bougie, may enable us to accomplish our purpose. It may now be expected, if the structure of the cervix be healthy, that dilatation of the os will proceed as satisfactorily as in many cases where this orifice is naturally small. In such we rarely find the power of dilatation absent.

Nægele proves, in examples of conglutination, that the finger alone will succeed. His reasons for preferring the digital puncture to the knife, are given in the following quotation from his Essay:—

"Conglutinationis orificii uteri sanatio in quam plurimis casibus nullis obnoxia est difficultatibus. Aut digito aut instrumento satis obtuso, e. g. cathetere femineo, digito duce in vaginam immisso et orificio uteri leniter adpresso conglutinatio, sine ulla parturientis molestia, facile disrumpitur: plerumque nonnullæ sanguinis guttulæ inter operationem effluunt, testes materiam organicam operatione ruptam esse.

"Digitum autem ad operationem perficiendam instrumento præferendum esse censeo, tum quia ad destruendam conglutinationem plane sufficit, tum quia digito adhibito minus timendum est, ne ovi membranæ lædantur; tum quia si digitus non sufficit, ab instrumento obtuso auxilium vix exspectandum erit.

"Hanc autem medendi rationem operationi per incisionem præferendem esse, nemo certe in dubium vocabit; quanquam enim incisio a manu perita et caute instituta non omnino periculosa est, cum experientia uterum satis graves læsiones sine infelici successu tolerare doceat; negari tamen nequit, incisione ab homine in arte chirurgica minus perito facta, utique

deploranda parturienti inde evenire posse mala. Nonne enim, e. g. bulla aquarum incisione læsa, dolorum vi subito jam aucta, caput fœtus fortiter descendens ipso instrumento vulnerari potest?"

But Nægele's method of procedure is clearly inapplicable where the interposed cellular membrane, shutting up the os, has become thoroughly organized and firm; so much so, indeed, as effectually to have resisted twelve, twenty, or thirty hours of most urgent uterine effort; although I am quite aware, that neither the wedge-like dilating property of the membranous pouch containing the liquor amnii, nor the head of the child, supposing it to present, can be brought fairly to bear upon the closed os, owing to the occlusion.

Nor must it be forgotten, if the finger or catheter be forcibly used to make an artificial os, that the parts would be contused, and that there would probably ensue, after such contusion, local, if not general uterine inflammation. If this be the result, the chances of recovery are greatly diminished.

It may too, perhaps, be fairly assumed, that the risk of unlimited laceration of the uterus and adjacent parts is much less, where incisions of tolerable extent have been discreetly made, than where merely a diminutive central aperture has been formed by a blunt instrument. In case 70, after *four* operations* — and in others, where incision was practised — the subsequent lacerations were confined to the cervix; they were restrained within the limits of the reflection of the mucous membrane over the neck, and did not involve the peritoneum, the body, or fundus of the womb. As of additional weight, it may be stated, that the structure into which the incision was made, was not the structure of the cervix—for it was clearly ascertained afterwards that a cervix did not exist—and although in both instances the incisions by the knife were followed by rent, yet in neither did those lacerations extend beyond the lower segment of the uterus, included within the reflection of the vaginal mucous membrane.

* It is remarkable, that in all the labours of this patient, now amounting to four, all of them being managed by different practitioners, incision has been necessary, and only a limited extent of laceration has occurred.

I proceed now to the *second* part of this subject,—in treating of which, I shall prove, from the similarity of cases of excessively rigid and undilatable os uteri to those of occlusion, as well as from the experience of the operation itself, that, in many such cases, incision may be safely and advantageously, if early practised. It must not be supposed that I recommend the knife to be at once employed in these more complicated maladies; but I am confident—so far, at least, as it is possible to be confident, in cases where probability must be our only guide—that where fatal results have occurred, they might often have been prevented by timely incision of the parts. But it has too often happened, as the appended cases show, either that the operation has been performed too late, or that a too powerful dilatation by the finger, and an unwise reliance on the natural efforts, have altogether superseded its employment. Examples of entire occlusion without disease, like those to which I have already alluded, are much more rare than extreme rigidity of the cervix and a diminished os; nor will it be found quite so easy in the latter as in the former class of cases, to determine the precise moment when bleeding, diaphoretics, fomentation, and delay, are to yield to the use of the bistoury: still the general safety of incision, and the known and imminent danger of protracted and severe uterine effort and contusion, ought to induce an *early* rather than a *deferred* operation. A careful perusal of the cases and authorities appended, especially Smellie's, cannot fail to impress this conviction. In every instance, or nearly so, where the division of the morbid structure has been made, prior to the occurrence of inflammation and sinking, it has succeeded; and, generally, with the fewest possible bad symptoms. Where, on the contrary, violent uterine action, contrary to the sagacious directions of the experienced Dr. Hamilton, has been allowed to go on for a great number of hours—say twelve, fifteen, twenty-four, or even a longer period—the result has generally been unfavourable, often fatal; and still more certainly so, where, during a portion of this time, powerful dilatation has been long and forcibly employed. Dilatation by the finger is not the same operation here, as to safety, which it is found to be in examples of rigidity not depen-

dent on, or associated with, local or structural malady. It is true that, in transverse and placental presentations, artificial dilatation is often practised with safety and advantage. Neither the mouth nor neck of the womb, both being healthy, suffer from the process: prevention of hemorrhage, and a freedom from useless and exhausting pain, are the results of the process; but where the cervix is rigid, contracted, and diseased, and the os so small as scarcely to be recognized, powerful, and long-continued artificial dilatation *must be a dangerous remedy.* It is scarcely to be expected that it should relax the parts and lead to dilatation; it is much more likely that it should irritate, and thus induce inflammation, gangrene, and death. I have said, that cases of entire occlusion and excessive rigidity have points of resemblance; but it must also be borne in mind, that they present important and marked differences.

The simplest, perhaps, of the examples of rigid os uteri, is where a very contracted orifice is surrounded by a structure almost entirely undilatable. In such a case, although there may be little indication of organic change, still, if there be a total absence of the power of dilatation, after the use of free venesection and antimony—time having been allowed for their beneficial effects—such a case cannot be long trusted with safety, either to the natural efforts or artificial dilatation. Other examples are not so simple as this. Many, probably the majority, are the consequence of some previous morbid occurrence. The os and cervix may have been injured in a former labour; abscesses, ulcerated surfaces, and cicatrizations may have taken place; thus the uterine orifice may have become nearly, if not entirely, closed; and the relative situation of the urethra, bladder, and vagina, so altered, as to render the division of parts much more difficult and hazardous; or it may be, that a hard tumour, or a more malignant and active deposit, has imbedded itself in these parts, totally altering the os and the natural structure of the cervix. In one essential particular, all these varieties will be found to agree, viz., in the difficulty with which the os and cervix are dilated; while in some, and those not a few, the susceptibility of dilatation will have been entirely destroyed.

Supposing, then, that the incapability of dilatation is satisfactorily established—what is to be done? We are presuming that the disease is well understood pathologically; that bleeding and every adjuvant remedy have been fairly tried, but without success.

The case may then be treated by *artificial dilatation, or by incision; or it may be left to nature.* To adopt the last course, would be to consign the patient, most probably, to unlimited laceration, if the womb continued to act; or to death, without laceration, if, worn out by protracted yet fruitless uterine pain, inflammation should take place.

Of artificial dilatation, enough, perhaps, has been already said, to indicate how little confidence in such rigidities can be placed on the utility of a moderate stretching of the uterine orifice: and certainly no impression can be derived from the appended cases favourable to protracted and powerful artificial dilatation.

It may then be assumed, that we are not justified in protracting the employment of the knife till the patient is nearly exhausted by the continuance and severity of the expulsatory efforts; the indications of approaching collapse being apparent, in a quick and feeble pulse, a cooling surface, hurried and short respiration, a subdued tone of voice, a tender and tympanitic abdomen, and a gradually-diminishing uterine pain. Many instances are on record precisely of this kind; and the event, in nearly all, proved fatal. Nor ought we to hesitate about incising the cervix, where the violence and frequent return of the uterine effort threatens rupture of the womb. If there be distressing and constant pain about the neck or body of the uterus, or in any other part; if the countenance become turgid and dark; if perspiration issue at every pore, and the pulse be full, strong, quick, and incompressible; and if these symptoms continue, although perhaps somewhat lessened by bleeding and antimony, there can be no doubt that recourse should be had to incision. It is impossible to fix a precise limit during which a patient may be safely left to unaided efforts: time is not the only condition, although an essential one in every rule regulating interference in obstetric cases.

There can be no doubt that, in many instances of rigidity, a free abstraction of blood, the exhibition of $\frac{1}{6}$th, $\frac{1}{4}$th, or $\frac{1}{2}$ gr. every hour of tartarized antimony, with or without opium, till it produce nausea, will accomplish the dilatation. No sensible practitioner would feel himself warranted at once to propose incision; nor would such an individual consider himself justified in not performing it when other means had failed. While, on the one hand, I am anxious to avoid the imputation of rashness, I am, on the other, if possible, more desirous to avoid the imputation of timidly shrinking from a procedure absolutely essential to a patient's welfare.

The operation, in any of the cases, whether it be on an os firmly closed, yet without organic change—or on an os very diminutive and contracted, with or without surrounding disease, but entirely undilatable—is, generally, easily performed. A probe-pointed knife or bistoury is the instrument most safely used; the patient lying, either on her left side or on her back, close to the edge of the bed. The forefinger of the left hand is to be carried to that spot of the cervix intended to be cut; afterwards, the knife or bistoury is to be cautiously conveyed along the finger in the vagina, to the spot already mentioned; and if its point be gently pushed against the uterine structure, it will completely incise the parietes. In case 70, I carried the knife, first of all, forwards, toward the neck of the bladder (which was empty), carefully avoiding it; afterwards towards the sacrum, making an incision about two inches long. The liquor amnii will necessarily escape, as soon as the first incision is made. The instrument may now be carefully withdrawn, and the further dilatation left to nature. It is scarcely to be expected that all rending should be avoided; but the extent of the tearing is, as has been already stated, generally confined within the limits of the vagina. I have no experience of the better effect of a crucial incision in preventing extensive laceration; but I am favourably inclined to it. It is not probable that much blood will be lost during or after the operation; in my own cases, only a few drachms escaped. If there should be fainting and collapse, after the incision of the parts, brandy and ammonia may be freely exhibited. It is a necessary preli-

minary step that the bladder and rectum be emptied of their contents. In case 70, the birth of the child was four times accomplished without instrumental aid; but the forceps is not unfrequently necessary to terminate the labour.

I shall now give a brief summary of the most important circumstances of some of the various recorded examples of occlusion and rigidity, in which incision was or ought to have been practised.

CASES OF ENTIRE OCCLUSION.

Case 1.—Mrs. P.'s. (See Guy's Hospital Reports, Vol. II, page 258.)—Here the patient, prior to the incision of the neck of the uterus, had been in strong labour for twenty-nine or thirty hours.

I made the division with a sharp-pointed bistoury, not having a blunt-pointed instrument at hand. There was scarcely any pain complained of; and not more than a few drachms of blood were lost. Although there were two or three lacerations after the incision, and rather alarming collapse, the natural efforts were sufficient for the delivery; and the patient recovered quickly and well. The child, although somewhat asphyxiated at birth, rallied. Length of incision about two inches. In this case, it was satisfactorily ascertained that there was no cervix; and the left mamma had no nipple.

Cases 2 and 3.—(Examples taken from the Thesis of Dr. Nægele, junior, page 19, published 1835.)

In both, the os uteri was, normally, exceedingly small; and the occlusion was produced by cellular membrane filling up the orifices. The lower part of the uterus was rendered very tense and hard, and greatly pushed down by the uterine efforts; so that, in one of the cases, it might with some excuse have been mistaken for the bag or membranes containing the liquor amnii.—In Case 2, the patient was fat and plethoric; and so violent were the pains, that, although she had been bled four times, no pain occurred without hemorrhage from the mouth and nose. It appears that she was more or less in labour for eight days, (matrona quædam plethorica et satis obesa per *octo dies* vehementissimis ad partum doloribus agitabatur, ita ut sanguis ei e naribus et ore erum-

peret, quanquam jam quarta vice ei vena secata erat.)—In Case 3, the patient had been in labour two days and nights. A female catheter was used in both these cases, to accomplish the puncture. In both, the uterine orifice dilated (confirming the opinion already expressed), not only without laceration, but with only a moderate amount of delay. The forceps was not required in either; and in both, the children were born alive and healthy.

These are instances, not of very firm and organized closure of the os, but of conglutination effected by a slight cellular membrane—"ope telæ filamentosæ;" the finger, or the catheter, would therefore succeed.

Case 4.—(From Dr. Nægele's Thesis, p. 27.)—On 17th of August, 1822, Dr. Meissner, of Leipsic, was called to a patient, thirty-five years of age, in her second labour. The pains were first felt on the 14th of August, and they had increased on the succeeding day. The mid-wife, on examination, detected the head of the child, but could not discover an os uteri. A surgeon was then called; and although he urged the patient to bear down when the pains occurred, by which the lower segment of the uterus was pushed very low in the vagina, still he could not discover any uterine orifice.

At noon, on the 16th of August, the woman was so exhausted, that she was unable to make any further voluntary efforts, although she still complained of the urgency of the pains. In the evening, the pains were less frequent and strong; and during the night she was delirious. In this state Dr. Meissner first saw her, on the morning of the 17th of August. The pulse was small, quick, and intermittent; and the patient was exhausted and worn out. The head of the child was entirely covered by the inferior portion of the uterus, much stretched and attenuated; and although the globular mass was pushed almost to the lower orifice of the vagina, there was to be found no vestige of an os uteri. Dr. Meissner, convinced that the uterine orifice was occluded, determined on the propriety of making an artificial opening. He did this with a scalpel; and, by the forceps, brought into the world a dead child. At nine o'clock in the evening the patient died.

It is not possible to conceive a case that could more entirely verify the opinions I have already advanced. The occlusion here seems to have been as firm as in my own case; and we

must deeply regret that the operation was not performed at the expiration of twenty-four hours, instead of at the end of nearly three days.

Cases 5 and 6.—(From Nægele, p. 28.)—Examples of occlusion of the os uteri produced by membranes filling up the orifice, and uniting the margins of the aperture. In one, the pressure of the finger was sufficient to rupture the membrane. In the second, the point of the female catheter was used. In both, parturition was accomplished without instruments. The children were living at the time of birth, and both the mothers did well.

Case 7.—(From Nægele, p. 32.)—This case was managed by Dr. Rummel. The labour commenced on the 25th of August, 1822. The patient was pregnant for the first time, and had suffered from leucorrhœa during the whole period.

There was no os uteri; and on the 27th of August, Dr. Rummel made one, by incision, Six hours afterwards he applied the forceps, and brought into the world a living child. The patient recovered well. The orifice retained afterwards the form it had received from the incision; and in the next confinement there was no necessity for further interference.

Case 8.—(From Nægele, p. 34.)—Here the patient was forty-two years old, and in her first pregnancy. The labour commenced on the 2nd of May; and Dr. Solera, after repeated examination, was unable to find an os. On the 4th, in the presence of other medical men, an incision was made into the neck of the womb; and in twenty-two hours afterwards, the child was brought away by the forceps.

Case 9.—A fatal example of complete occlusion at the time of labour, the patient having previously borne several children. Dr. Waller, of Bartholomew Close, furnished the case to the late Mr. Tweedie; and a full account of it will be seen in Vol. II. of Guy's Hospital Reports.

Case 10.—(Reported in Dr. Gooch's published Lectures.)—After miscarriage, extensive sloughing took place, comprehending the os uteri; in place of which there was only a hard contracted circle, as if formed by a cicatrix. This woman was attended in her labour by three surgeons; all of whom agreed in the fact, that the os uteri was lost. The labour-pains were not sufficient to force the head through this un-

yielding portion of the passage; the head had descended low into the pelvis, pushing the lower part of the uterus before it. After waiting a considerable time, and the strength of the patient being almost exhausted, it was determined by the professional attendants, to cut an os uteri. The patient was taken out of bed, and placed in the position for lithotomy; so that the light fell on the vulva. By dilating as much as possible the external orifice, the cervical portion of the uterus was apparent, as well as the cicatrix in the situation of the os uteri. This part was first punctured with a sharp-pointed bistoury, and an incision of considerable extent was then made with Pott's bistoury. The patient was replaced in bed; the labour-pains returned; and the head was forced through the opening, rending it right and left. Some alarming symptoms now occurred; and as the head descended slowly, it was perforated, and she was speedily delivered. In forty-eight hours after her delivery, this woman had no bad symptoms. There was a purulent discharge from the vagina for about a fortnight, after which she recovered perfectly, and is now pregnant again.

Dr. Gooch adds:—"Many similar cases, which were treated in the same manner, have been recorded; some of them terminated successfully, and others fatally, in consequence of the operation having been too long delayed."

It would be superfluous to add more such cases as these. They abundantly establish the opinions formerly advocated, and the treatment recommended; and every practitioner may increase his information on this interesting subject, by a careful examination of the authorities which support these views.

CASES OF CONTRACTED OS UTERI, CO-EXISTING WITH EXTREME RIGIDITY OF THE CERVIX, DEMANDING INCISION.

Case 1.—(For its complete history, see Guy's Hospital Reports, Vol. IV.)—A continuation of Mrs. P.'s case. Incision was practised: there was some rending of parts, and collapse. The mother and child both did perfectly well. In two subsequent labours, treated, the one by Mr. Armstrong of Gravesend, and the last by Dr. Lever, incision has been performed with the same satisfactory results.

Case 2.—The following history demonstrates the inexpediency of

strong artificial dilatation and delay. There can be scarcely any doubt but that recovery would have followed an early incision. It is, however, very instructive.

To-day, August 6, 1831, I visited Mrs. R——, residing in Spital-fields. She is thirty-one years of age, has been confined only two days, and is dying from peritoneal inflammation. I ordered ammonia and wine, together with a mustard poultice over the hypogastric region. The slightest pressure on the abdomen produced exquisite pain; pulse 148, weak, fluttering, and intermittent. Two days afterwards I inspected the body, Mrs. R—— having died shortly after my visit.

I was informed by the medical attendant, that the os was extremely rigid; and that having waited nearly twenty-six hours for its dilatation, he had stretched it artificially, by the finger; and although he had done it gently, she complained severely of pain, both at the time and afterwards. The attempt at dilatation occupied upwards of two hours.

An examination after death showed the peritoneum to be generally inflamed, but especially the portion of it investing the uterus: there was a considerable quantity of dark-looking serum, tinged with streaks of blood in the pelvic cavity; and floating in this serum there were many shreds and patches of coagulable lymph. On dividing the uterus from the fundus, downwards, the whole of the cervix, and much of the lower portion of the general cavity of the uterus, was found to be in a gangrenous state. The upper part of the vagina was inflamed and also gangrenous.

Case 3.—(See Smellie's Cases, Vol. III, p. 43.)—As this case is very long, although interesting, I must refer the reader to the work in which it is contained, giving only the leading particulars.

It was under the care of Dr. Simpson, Professor of Medicine in the University of St. Andrew's.

The patient was observably narrow between the ossa pubis and the os sacrum; and the growing together of the sides of the os uteri, leaving no vestige of a passage, was the result of mischief occurring in a former labour, which lasted four days, and was eventually completed by the perforator. A plentiful suppuration from the internal parts continued for a time after the first labour.

Dr. Haddow confirmed Dr. Simpson's opinion of the case. Two days having now elapsed, it was determined to cut an os uteri; but it was thought necessary, in order that the incision might be more securely made, that the vagina should be first dilated. This being completed,

the cicatrix of the united parts was distinctly seen : and it was divided by an incision, at least half an inch deep. The child's head was then touched, and the whole circumference of the passage was found to be hard, like a cartilage, not at all yielding to several throes she had after the incision,—" so that I was obliged," says Dr. Simpson, " to guide a narrow-bladed scalpel with my finger, and to make several incisions into this cartilaginous ring. The labour continuing, the passage dilated a little, but not so much as to give any hopes of its allowing the child's head to pass, notwithstanding the bones of the cranium were overlapped; and therefore I was obliged to bring away the child by perforation."

" My patient," says Dr. Simpson, " immediately after being put to bed, was seized with a pleuritic pain, very high fever, and difficult breathing ; which, coming on so soon after her being fatigued several days with hard labour—during which she slept none, but drank much—appeared to me rather the cause of her death in twenty-four hours after, than any consequence of the incision I had made ; for she never complained of uneasiness in those parts, nor had she any hemorrhage."

There can be little doubt that the contusion of the parts, and the collapse of the system consequent on the two days of prolonged labour, prior to the incision, induced the fatal result. Nor does it appear that bleeding, so likely to have been highly beneficial, was practised; at least, there is no allusion to it in the narrative of the case.

Case 4.—(Smellie's Cases, Vol. III. p. 204.)—This is a painfully instructive history. First of all, repeated and powerful attempts were made to dilate the os, not alone by Dr. Smellie, but by others also. Instruments were passed into the mouth of the child, with the same intention ; and although considerable efforts were thus made, the dilatation could not be accomplished. Flooding and faintness were the consequence of these measures. " But," says Dr. Smellie, " after she was recruited, I tried again to dilate the os uteri ; having found, in other cases, that it dilated easily when the patients were faint and weak ; but I found the same difficulty as before."

" I was apprehensive," says Dr. Smellie, " of using any greater force by pushing up, lest I should tear the uterus from the vagina ; but finding that I could not fix the crotchet to advantage, I again withdrew it. All this time the os uteri felt as if it was two inches thick." Mr. Burnet, who had first seen the case, again attempted to dilate, even after this period, but without success. She died soon afterwards, in a convulsion, undelivered.

Here, again, it does not appear that bleeding was practised, The case requires no comment; venesection, and the incision, would probably have saved the patient.

Case. 5.—(Smellie's Cases, Vol. III, p. 211.)—This is another instance of the same unfortunate kind, although here Smellie approached to the right treatment. The os uteri was open to about the size of half-a-crown, but rigid and very thin: it was a first labour, and occurring two months before the full time.

After continued and unsuccessful efforts to dilate the rigid orifice, Smellie incised the neck of the womb by a pair of scissors: the parts afterwards gave way; the hand was introduced; and a dead child was brought away by turning.

There was much flooding; and the patient died on the fourth day.

Case 6.—(Dr. Nægele's Thesis, p. 17.)—Here the patient was a healthy country-woman, of 35 years of age. On examination, a very small aperture or orifice was found, from which there issued a brown mucous fluid. Various attempts were made at dilatation and delivery, but without success; and after two days of useless and protracted uterine suffering, the patient died. After death, there was discovered a very large rupture of the uterus.

I might increase the number of these cases; but it is unnecessary to do so, as this treatment has now received the sanction of some of the best obstetric writers and practitioners; and, I am persuaded, renewed trials will only confirm its value and safety.

As references to some of these examples of successful incision in rigidity may be useful, I append them. In the Volume of the Medical Gazette for 1837, p. 585, I have detailed an instance where, in two succeeding labours, it was necessary to incise the os. Crucial incisions were made in both operations. In the first, perforation was resorted to. In the second, the forceps only was employed; but the child died. This patient has subsequently borne three living children; no further division of the uterus having been required.

In Professor Davies's work on operative midwifery, some valuable observations on rigidity will be found. He is fully

aware of the value of bleeding as a remedy for, or corrective of, an actually existing rigidity; nor does he deprecate artificial dilatation, in some cases, if employed with caution.

Several very interesting cases are recorded of the success attendant on timely incision; and one is quoted from Tretzelio, where fatal rupture of the uterus occurred, from non-dilatation of its orifice; in which, although severe labour lasted for nearly three days, no attempt of an efficient or decisive character was made to avert the calamity. In another example, the patient was forty years old, and pregnant with her first child; she had been in strong labour for three days, and suffered convulsions during the second. She was frightfully pale: her pulse was almost extinct, as well as her voice, yet the circumference of the orifice of the uterus, open to the diameter of a crown piece, was hard, tight, and, in a manner, callous. Delivery was performed spontaneously in three or four minutes after the section of the part: the child was dead, but the mother immediately grew calm, and the subsequent symptoms were mild.

Heath's translation of Baudelocque, Campbell's Midwifery, and various journals, may be consulted for further information.

Dr. Davies very properly refers to the forceps and turning, as important remedies, where the incision may have been succeeded by a profuse hemorrhage, or having been too long delayed by an inability to effect spontaneous delivery. If the head has advanced far into the cavity of the pelvis, the forceps must be resorted to; if, on the contrary, it be still at or above the pelvic brim, the hand, being of softer texture, and itself endowed with feeling, would be the safer instrument.

Mr. Godfrey, formerly a student of Guy's, informs me, that recently, in Paris, M. Paul Dubois incised successfully in a case of occlusion of the os, after the employment of opium.

Case 70.

PREGNANCY WITH IMPERFORATE UTERUS.

REPORTED BY MR. TWEEDIE.

Eliza P——, aged 23 or 24, an Irish woman, residing at No. 105, Little Suffolk Street, Southwark, a patient of Guy's Lying-in Charity, was taken in labour, with her first child, on the 14th or 15th of November, 1836. Mr. Roe, the gentleman to whom the case had been entrusted, was called to her at seven o'clock in the morning. He was informed that she had been in strong pain since the preceding evening, but there had been no show as yet. Mr. Roe observed the pains to be urgent and very powerful; but although he remained several hours with her, he had not succeeded in discovering the os uteri.

Puzzled with such a novelty (for he had attended a great number of confinements), he requested me to visit her. It was now two o'clock: the patient was on her bed. On examination, I found a firm, uniform, globular mass forcing down into the vagina at every pain (which was of great force), but no irregularity upon its surface could be detected; and a very careful examination of the entire vagina, whose extremity was easily reached at all points, failed in detecting the os uteri. As her bowels had been confined for two days, Mr. Roe had administered a dose of castor-oil; so we delayed a few hours, to see what nature would do, as well as to afford time for the oil to operate.

In the evening we again met, and saw the patient. Labour-pains had persisted, and were of unusual severity; the castor-oil had acted once. A most careful investigation of every part of the vagina failed to detect any os uteri. At the upper part of the canal, at each pain, there was forced down this tight, tense, globular body, of the bulk of the child's head; and conveying the impression of an entire uterus, without orifice.

About the spot where the os uteri should have been, was a minute portion, somewhat thinner than the surrounding parts; but the whole was uniformly smooth, and contained no break whatever.

On the receding of the mass, in the absence of the pain, something like a child's head could be felt within.

Inquiries were now made, and the following facts elicited:—

Mrs. P—— was married on the 4th of February preceding, 1836.

Since the age of fourteen, she had menstruated every four weeks, sometimes every three weeks. The discharge was always pale and scanty, and continued from two to three days. She never suffered pain at those periods. She has not menstruated since her marriage.

Both before and subsequent to her marriage, she enjoyed good health; and, although in the necessary duties of her vocation she has undergone an unusual degree of laborious exertion, still she has not had a day's illness. For two or three days before labour came on, she noticed a rather copious reddish discharge, that continually drained from her; but there was no pain. On the subsidence of this, about the 12th, slight pains in the back were felt, which went on till the night of the 14th, when they assumed the severe and urgent character which occasioned her to summon her medical attendant at the time already stated.

Having satisfied myself, at this second examination, that there really was no orifice into the uterus, and the pains continuing of a severe character—and the existence of a living child being proved by the pulsations of the fœtal heart, which were distinctly audible, about twice as fast as the mother's pulse—I sought the advice of Dr. Ashwell.

The Doctor lost little time in arriving; and having, by a careful investigation, positively confirmed the statement of the condition of parts already made, he determined upon losing no more time in making an artificial opening across the above-named spot, where the globular body seemed slightly thinner than elsewhere. The patient's pulse was about 120 to 130, very irritable; the pains violent; the skin irregularly hot and cold; the features anxious; the mind irritable; general restlessness; the bowels had now been twice relieved by castor-oil. Accordingly, having placed her on her left side, the Doctor introduced his left fore-finger as a director, upon which he passed up a curved, sharp-pointed bistoury with his right hand; and having punctured the spot already fixed upon, he incised forwards towards the bladder (which was empty), and backwards towards the rectum. At this last incision, a few drachms of dark blood flowed out. The liquor amnii of course escaped, and the head fell upon the artificial opening, which proved to be of the diameter of an inch and a half, or perhaps nearly two inches, and about a line in thickness.

The Doctor did not incise laterally, lest he should wound any of the the branches of the uterine arteries. At one o'clock A.M. of the 16th, he left the patient, in charge of Mr. Roe and myself. The pains abated for a brief space after the operation, the performance of which occasioned no suffering, so that she seemed not to be conscious of any

thing, beyond the inconvenience of manual interference. Pains, however recurred; but little advance towards dilatation appeared to be made for some time, till about four A.M., when, under the influence of a severe pain, the edge of the orifice tore suddenly on the right side; and soon after, another rent took place, whilst my finger was at the part, backwards, towards the left sacro-iliac synchondrosis. She now became faint; the pulse was 140 or 150, feeble; the skin cold and clammy; and greatly exhausted. Ether, ammonia, brandy, and opium, were administered, and she rallied. After resting about two hours, the pains recurred gradually, and became as powerful as at any previous stage of the labour.

The extent of the laceration on the right side could be reached by the finger; it had not extended to the vagina: that on the posterior part was beyond reach. No gush of blood attended these lacerations. The head became engaged in the pelvis, and the patient was delivered at 11 A.M.

The latter pains were not powerful, and much stimulant was administered towards the close of the delivery. There was a more than usual degree of hemorrhage; the infant (a male) was still-born, and with difficulty revived.

The placenta was taken away in half an hour, and the uterus contracted well. Nothing further could now be detected on examination, but several ragged shreds about the orifice at the top of the vagina.

The tongue was dry, and brown at the tip; the head ached; the pulse was 110, jerking, (doubtless referrible, in some degree, to the stimulant.) Towards the close of the labour, the bowels had afforded three copious motions.

Liq. Opii sedativ. m. xl. statim.

And to meet the expected re-action,

Haust. Efferves. c̄ V. Ant. Tart. et Tinct. Hyoscyami āā ʒ ss. 4tis horis.

Barley-water.—Quiet.

5 P.M.—Has been visited by Dr. Ashwell; pulse 104, no tenderness: tongue moister; bowels once more opened; has voided urine twice. Since the delivery, there has been a copious draining (with some clots), which has trickled along the floor, having penetrated through the bed. This is principally urine; but there is evidently, also, a considerable quantity of blood. She has slept perhaps half an hour.—Pergat.

11 P.M.—Has slept an hour, and is refreshed. Free from pain; no sickness; pulse 104. Has drank largely of barley-water.

Liq. Opii sed. ʒ ss. ; et pergat.

Nov. 17. 10 A.M.—Has slept about six hours. Pulse is only 84, soft; bowels open twice; urine free; tongue white, but moist; moderate perspiration; no tenderness. There has been but slight draining, tinged with blood.

6 P.M.—I was hastily summoned. She had three motions, in quick succession; and, with the last, there was much bearing down, followed by severe attacks of pain in the back and in front, with the expulsion of more clots. The pulse was 106, jerking; countenance rather frightened than anxious; there had been no rigor; but there was some pain on pressure over the womb.

Pulv. Opii gr. i. statim.

She was supplied with a bed-pan; with strict injunctions to maintain the recumbent posture, under all circumstances.

11 P.M.—Has slept at least three hours. The pain has abated; there is almost none on pressure. Bowels quiet; pulse 96, softer.

Liq. Opii ʒ ss. statim; et pergat.

18, *Mane.*—Has slept nearly all night, and is quite free from pain or tenderness. Bowels open twice; but the pain prevents any comfort; pulse 90; tongue white, moist.

Rep. Haust. Efferves. sine V. Ant. Tart. et T. Hyosc.

Vespere.—Has been comfortable all day. Pulse about 90, soft; tongue cleaner; no pain; bowels open once; urine free.

Pergat; et Opii gr. i. h.s.

19.—Slept well. Pulse 100, weak; bowels open twice; no pain. Discharge during the night was more profuse, with some clots of blood; but the napkins have been put away. Asks for food. There is no milk, but the breasts are filling.

Haust. Efferves. c̄ Tinct. Opii m. v. 4tis horis.
Liq. Opii sed. ʒss. h.s.
Barley-water, and gruel.

Nov. 20.—This morning there is an abundant supply of milk in both breasts. The child sucks well from the right; but the left is enormously distended, *and has no nipple.* There is an extensive areola,

with a slight central depression, and no milk has passed from it: as yet there is no hardness, but she suffers a good deal from distension and pain. Pulse 110, jerking: tongue moist, slightly white; bowels once open; no hardness, on pressure over the uterus. There is a copious, offensive discharge; but I have not been able to see a napkin.

Omit. Medicamenta.—Low diet.—Breast-pump.

Nov. 22.—Mr. Roe used the pump yesterday, and after much perseverance, succeeded in drawing forward a portion of the areola, and procured a large supply of milk: since then, the breast is comfortable and smaller, and the milk oozes from it spontaneously. Pulse 90; tongue clean; bowels open; sleeps well; no pain; is hungry. Discharge abundant, greenish, muco-purulent, and offensive.

Improve the diet; and continue the remedies.

24.—Child cannot sieze the right breast as it is small, but free from pain, and the milk spontaneously issues from it. Discharge less in other respects. Doing well.

25.—Is doing well, and may be pronounced convalescent. Enjoined to keep her bed yet for some days.

Dec. 4.—On calling to-day, I find her weak, but well. Since the last report, she has had some severe pain and tenderness about the pubes; for which Mr. Roe (who has been most assiduous in his attentions) applied a few leeches, and the pain quickly subsided. There is still a profuse, greenish discharge from the vagina. Is weak.

Ordered a little Quinine.

14.—Went this morning, in company with my friend Mr. Gaselee, to institute an examination into the present state of parts. It was with difficulty that even a manual examination was permitted.

A day or two after the last-reported visit, the discharge assumed a reddish character, and so continued between three and four days: it commenced, continued, and ceased, like the catamenial secretion, and was attended by no increase of symptoms. She is now nearly free from discharge; and though weak, is at the tub washing.

The following is the result of a careful investigation:—The vagina is short; its extremity, and every part of it, can be readily reached by the fore-finger; it presents no other peculiarity.

There is no cervix uteri. The uterus seems reduced nearly to a normal unimpregnated size. At the extremity of the vagina, there is a puckered, irregular orifice, into which the tip of the finger can enter: it

is soft, with smooth and thick edges, not perfectly circular, in consequence of certain indentations, as if from the drawing together of several small rents.

It might be compared to the base of an apple; whilst this part of a normal uterus would better resemble the apex of a pear.

Radiating from this central aperture can be distinctly felt three ridges, like lines of adhesion; one passing forwards, towards the right ilio-pubic junction, traceable nearly to the reflexion of the vagina; one opposite to this, backwards, towards the left sacro-iliac synchondrosis, whose extremity is lost in the reflexion of the vagina; and the third, of short extent, about one-third of an inch long, passing backwards and to the right. These were distinctly ascertained, by both Mr. Gaselee and myself, to centre in, or radiate from, the aperture above named.

This case is singular, especially when it is remembered, that the late Mr. Tweedie, Mr. Armstrong of Gravesend, and Dr. Lever have, in Mrs. P.'s *three succeeding labours*, been compelled to resort to incision. After every operation, her recovery was quick and quite natural. I am not aware of any ease having been recorded, where in four labours it was necessary to divide the lower part of the womb by the knife, to make a way for the child. After what has been advanced, there can be no hesitation about the treatment proper to be employed. The safety of incision consists in its prevention of unlimited and extensive laceration. So long as division by the knife, and the subsequent tearing of parts, is confined to the os and cervix, and does not extend beyond the reflexion of the mucous surface of the vagina over these parts, recovery is almost certain; whereas, if the parts be left to rupture of themselves, the body and fundus of the uterus, and their peritoneal investment, are pretty sure to be implicated, the result will then most probably be fatal.

BIBLIOTH. COLL. REG. MED. EDIN.

CHAPTER V.

ORGANIC DISEASES OF THE MUCOUS MEMBRANE OF THE CAVITY OF THE UTERUS.

The diseases of the cavity of the uterus, as polypi, submucous tumours, malignant growths and ulcerations, physometra, hydrometra, moles, and hydatids, are difficult of diagnosis, being, till they are fully established, concealed from examination, while their accompanying discharges, whether of water, mucus, or blood, have frequently, prior to their discovery, fearfully injured the health. They are not equally alarming; a chronic catarrh of the lining membrane of the womb may be incurable, and the cause of sterility; but it is far less dangerous than a fungoid tumour.

Nor must it be forgotten, that in health, the mucous tissue of the uterus performs a variety of functions, secreting the catamenia, the decidua, and the lubricating mucus. Improved pathological researches, aided by the speculum and the finger, may often enable us to declare what a disease is not, thus lessening our doubt and uncertainty; although for some further time we may not venture to declare its true character. There are no affections about which our suspense will be more painful. It is unnecessary, therefore, to urge the absolute necessity for unceasing and vigilant watchfulness, that every symptom may be met at the earliest moment, and as far as possible controulled.

POLYPUS OF THE UTERUS.

DEFINITON.—*A firm and insensible tumour, usually round and smooth, and growing by a stalk either from the mucous lining of the uterus, or the structure beneath; its chief symptom being hemorrhage. It commences in the cavity of the womb, in the channel of the cervix, or from the os. It is often of fibrous texture, not malignant, and rarely ulcerates. It is covered by mucous membrane, and sometimes by an adventitious coat, the product of inflammation. There is little pain, menstruation is excessive, and conception may occur.*

History and Symptoms.—Polypus of the uterus is not an uncommon disease, but certainly much more rare than cancer. Many months elapse, even in hospital practice, without the occurrence of one case of polypus; while it is unusual for a week to pass, without an out or in-patient presenting a new example of carcinoma. There is no malady more certainly curable than polypus, although many patients have died from its accompanying bleedings, without its existence ever having been suspected, much less ascertained. The necessity for vaginal examination, where profuse uterine bleedings resist the remedies employed for their suppression, cannot be too strongly urged. In the hemorrhages of polypus, astringents are useless —the only effectual remedy is removal.

Pain can scarcely be said to be a symptom, and the first suspicion of the disease is excessive menstruation, or bleeding occurring in the catamenial intervals. Although the evacuation of the bladder or intestines is seldom prevented, it is not impossible that a large polypus, by pressure on the urethra or rectum, or both, may obstruct their functions. Hence, if the patient be strong, the loss of blood seldom attracts notice, till some of its injurious effects begin to be realized. When the digestion becomes impaired and there is leucorrhœa, deadly sallowness, difficult respiration, and other evils,—then anxiety begins, and it is not long till a reluctant permission is granted to examine the state of the womb.

There is considerable variety in the size of polypi. I have known one not larger than a garden bean, give rise to frequent and alarming hemorrhages; and I lately removed a polypus by excision, larger than a Seville orange, which, from its commencement, had scarcely bled at all, but which ultimately produced irritation by its pressure on the neck of the bladder, and great exhaustion by constant and large secretions of pus. Few diseases are more quickly and accurately distinguished, when the growth has descended into the vagina, or even when still in the uterine cavity, if the os be sufficiently open to allow its bulbous portion to be touched. Under such circumstances, the finger may be passed round and between the tumour and the walls of the uterus; the diagnosis being rendered more certain by the insensibility of the foreign body.

The protracted inclusion of a polypus within the uterine cavity, is perplexing and dangerous. A small one, especially if it be soft and vascular, may give rise to alarming and even fatal losses of blood; while, as the body of the womb is scarcely at all enlarged, and the os closed, we can only conjecture that such a disease may exist.

Such instances have occurred in my practice, and a hard polypus of moderate size, now in Guy's Museum, removed when it had very partially descended through the cervix, fully attests the truth of the preceding observations. This polypus grew so slowly, probably because the hemorrhages had been frequent and excessive, that three years elapsed prior to its coming within the reach of the finger. During this period, the patient had been repeatedly seen by eminent obstetric physicians, who in vain attempted to restrain the bleedings. At first, as she believed it to be entirely useless, I was not permitted to make an examination; but on my assuring her, that although the growth had not yet descended into the vagina, it might speedily do so, she consented; and I had then the opportunity of touching a small, hard, and insensible tumour, just emerging from the os. The bleeding which followed alarmed me so much, that, before leaving the house, I attempted its removal. Excision was out of the question, and with a very long instrument, I made two unsuccessful efforts before I

could apply the ligature. When completed, the canulæ were some way within the channel of the cervix. It was an anxious case, for there were several bleedings within the first two days, and from one of them it did not seem for some hours that she would have rallied. During the twelve days the ligature was applied, the patient was never quite free from uterine pain. Often I had to loosen the whip-cord, to foment the abdomen with hot gin and laudanum, and twice a day to give an opiate. At length, however, to my great gratification, both the instrument and the polypus came away. The swollen legs and feet, the deadly paleness of the skin, and the universal anæmia gradually vanished, and the patient is now, after a lapse of several years in confirmed health.

There can be no doubt, that women have died from hemorrhage, or the diseases resulting from loss of blood (vide case 76), where a polypus had really descended into the vagina, which might have been early and easily removed; and many have been lost from similar bleeding, where the growth was shut up in the uterine cavity, and beyond the reach of surgical assistance.

Dr. Gooch has pointed attention to the fact, that polypi grow from different parts of the womb, from the *fundus*, from the *inner surface of the cervix*, but least frequently from the *rim of the os uteri*.

I am not aware that the part from which polypus grows is at all important in reference to the operation; although it is thought that polypi attached to the cervix have a less tendency to hemorrhage than those growing either from the cavity or from the os. If the ligature be used, it must entirely include the peduncle, regardless of the spot whence it grows, and if the knife be employed, the excision of the same part must be complete.

When a polypus grows within the uterus to any size, it dilates its cavity as in pregnancy; but here the similarity ceases. For, even before it descends, the os will not be sealed as after conception, but somewhat more than usually open; and when the polypus is emerging from the uterus, the lips of the os will be thinned, and closely applied around the protruding body; exceedingly unlike the uterine aperture in the later months.

It is rare to find more than one polypus, and I have scarcely seen an example either of renewed growth after removal, or of polypus of the cavity, co-existing with one commencing in the circumference of the os. It is less rare to find two bulbs shooting from one stem; and in case 77 it will be seen, in a polypus of doubtful character growing from the os uteri, that I was compelled to tie the pedicle twice.

Single women, and several of my patients have belonged to this class, are probably as subject to the malady as the married, nor is any temperament exempted.

Polypi commencing from the lip of the os are not always distinctly pedunculated, nor do they invariably assume the bulbous form. In a case lately under my care, I was several times foiled in an attempt to apply the ligature, owing to the lower part of the polypus being of pointed form, while its base was exceedingly broad; eventually I removed it by the knife.

The irregularity of menstruation, nausea, and languor, the the tension and dragging sensation, occasionally accompanying the disease, may for a time induce a suspicion of pregnancy; and although it is rare, it is not impossible that conception may occur, if the growth, by its size, does not entirely close the os or the uterine extremities of the fallopian tubes. After the removal of uterine polypi, pregnancy is rare, even where it had previously taken place, and in several cases which I have watched for years, conception has never recurred.

It has been already remarked, that pain is seldom an attendant of polypus; and yet where the uterus, distended by the growth, is excited to contraction, there is pain in the hypogastrium, loins, groins, and thighs; and in its efforts to push the tumour into the vagina, the womb is occasionally carried down towards the os externum. Hence, if the organization of the cervix be unusually firm, these expulsive contractions will be frequently and painfully repeated; and the polypus may acquire considerable magnitude before its complete extrusion from the uterine cavity.

In a case lately under my care, there was great suffering attendant on this process, and the ergot was beneficially given. For several weeks afterwards, from the greater size and dilata-

bility of the vagina, there was neither pain nor bleeding; but the peduncle grew, and the os and cervix tightly contracting on it, the superficial vessels were tied as by a ligature, and rupturing, hemorrhages frequently occurred, rendering removal absolutely necessary.

In some instances mentioned by Dr. Campbell, the os tincæ, by firmly grasping the peduncle, has entirely suspended the circulation in the tumour, and thus effected its detachment. Such an example has not come under my observation.

Some polypi grow and distend the vagina to an enormous degree, without the occurrence of pressure; but it is far more common that impeded and painful marital intercourse, mucous, sanguineous, and occasionally purulent discharges, admonish the patient that there is disease.

The neglect of vaginal examination is never more conspicuously injurious than in polypus. I have seen patients, both in hospital and private practice, all but dead from its attendant bleedings, where not a single examination had been made.

It must not be supposed, either, that uterine polypi are always of fibrous texture, or that they are always accompanied by frequent and large hemorrhages. Sometimes they are soft and cellular, having cavities filled with grumous blood, and neither externally nor within, can they be compared to fibrous growths. They may also be rough, granulated, and firm on the surface; while other portions are almost fungoid. From these there is generally much bleeding.

There is great variation in their size. Some are very small, and yet bleed profusely; while the large polypi, having been much pressed upon and condensed in their structure, bleed but little. Still, in these examples, the sufferer is much weakened by the constant leucorrhœal and purulent discharges.

Thus, from the great diversities in the size and discharges, whether of blood, mucus, or pus; and from the strength or weakness of the patient, there will be a marked difference in the effects. In some instances, the evils of the disease are so quickly realized, that there should be no delay in making an examination, which will at once lead to its discovery; and if the polypus be still shut up in the uterine cavity, the slight benefit

derived from styptic remedies, and the size of the uterus and the altered state of the os, will lead to a suspicion at least of the real nature of the disease.

If a polypus be suspected and not found, the bleedings still continuing, the vaginal examination should from time to time be repeated. On one occasion, a large double-bladed speculum, so far opened the lips of the os as to bring into view a portion of the body of a polypus still shut up in the uterine cavity. There is no disease more likely to be regarded as cancerous, especially where the hemorrhages are frequent and profuse, till examination has afforded the opportunity of determining its real nature. A blanched and cadaverous surface, impaired appetite, diarrhœa, œdema, tympanites, and emaciation, are almost sure to occur (vide cases). Nor is it at all uncommon, where the blood comes away in clots, forming more or less accurate moulds of the polypus itself, that it may, from long retention in the vagina, become partially decomposed, and emit a fetid odour, thus confirming the erroneous diagnosis.

Menstruation is often profuse and frequent, although I have known cases where its regularity was scarcely disturbed, and one or two in which the discharge was not in excess.

Vomiting, dependent principally on the loss of blood, aided by the expulsive efforts of the uterus, and the dragging down of the tumour itself, is a constant accompaniment of advanced polypus.

In some instances, noticed by various authors, there are regular bearing down efforts, effecting the detrusion of the growth. In one such, occurring at Guy's, the stalk was broken, and the polypus came away. I have never known a new polypus grow from the portion of peduncle left behind.

Already, in Chapter III, page 322, "labour complicated with tumour" is fully discussed; but it may be proper to remark here, that a large polypus may present so serious an obstacle to delivery, as to require instant removal, the operation being most safely done by applying, first, a ligature on the peduncle if within reach, and immediately afterwards cutting away the larger portion by a bistoury; or if the noosing cannot be accomplished, the solid mass, resisting the passage of the

head, must still be removed; the dangers of hemorrhage after such an operation being far less, than either delayed delivery or the consequences of protracted and severe pressure on the polypus and surrounding parts. Dr. Gooch mentions two cases. In one, where the polypus grew from the neck and lip of the uterus, it was discovered in the fifth month of pregnancy; and, being removed by ligature, the pregnancy went on to the ninth month, and the patient was safely delivered. In the other, the tumour was not discovered till the commencement of labour, and occasioned the death of the patient, a few hours after delivery.

Mr. Borrett, an able surgeon at Yarmouth, has published a case where he found, on his first examination, a large fleshy tumour within the vagina, which, by its attachment, concealed the posterior segment of the os uteri, while the anterior was easily felt. As the head did not descend, he introduced his hand, brought down the feet, and extracted the child. Eight hours after delivery strong pains came on, as if there was another child; but as the abdomen was flat, and the contracted uterus could be distinctly felt in the abdomen, Mr. Borrett was satisfied that the uterus was empty, and gave her an opiate. The pains continued, with violent expulsive efforts all night, and on examination, a soft, round tumour, pressing against the outer orifice, was discovered. The next morning she had a languid pulse and a pallid countenance; a large fleshy livid tumour had been forced out of the vagina; and every pain brought it more and more in sight. The patient continued to suffer and to sink through the rest of the day, and in the evening she expired. On opening the body, the uterus was found contracted, but its mouth was dragged down as low as the external orifice, by a tumour which grew from it by a thick stalk. It was attached to the posterior part of the orifice, and some way up the neck, was of a livid colour, and weighed three pounds fifteen ounces.

There can be little doubt, after the post mortem inspections detailed in the cases appended to Chapter III, that in this case, if a ligature had been applied round the stalk of the tumour, and its body cut off just below, that recovery would have been the result. Instead of inflammation in and about the

uterus, Dr. Gooch remarks, that the uterus was contracted, but that the polypus was of livid colour, plainly showing that gangrene of the tumour had resulted from its contusion during labour, and confirming the views expressed at page 325, "that when death occurs in labours thus complicated, it is only slightly, if at all, referrible to lesion of the uterus; the symptoms during life, and the inspections after death, proving that the unfavourable termination is mainly referrible to inflammation, softening, and unhealthy suppuration in the growths themselves." Dr. Francis Ramsbotham has published a case of polypus complicating labour, where the tumour was expelled between the thighs, and where, for reasons deemed by him and his father quite sufficient, the growth was not removed till four months after delivery. Dr. Davis, too, advises "to delay the operation of extirpation till after delivery, when the polypus is of moderate size, and has a neck of unusual thickness." Such cases, and the practice inculcated, must however be regarded as exceptions to the rule I have laid down.

Metritis has been known to occur after delivery, where a polypus has been retained in the cavity of the womb; and in a case where I was consulted by Mr. Hammond of Edmonton, a tumour, the size of a large orange, imbedded in the posterior wall of the uterus, entirely prevented its natural contraction after labour. Death occurred at the end of a fortnight, from inflammation and gangrene of this morbid growth.

It is said that polypi by their weight, but especially by their sudden escape from the uterine cavity, may produce inversion of the organ. It is difficult to suppose this, if the uterus be unimpregnated; although such an accident is vouched for on the most repectable authority. After labour, it is easy to understand how such an occurrence may take place.

Causes.—A variety of opinions have been entertained as to the cause of uterine polypi; but as yet nothing absolutely certain has been established. It is most probable that they owe their origin to morbid change in the growth of the uterine mucous membrane, the result of irritation, or of slight inflammatory action.

They are said to occur most commonly in persons of lymphatic temperament, who reside in low and damp situations: by some it is supposed, that their growth is attributable to the organization of a clot of fibrine retained in the uterus after hemorrhage.

The Diagnosis is not often difficult. A firm, insensible, and bulbous growth, having a distinct peduncle, embraced by the cervix uteri, and traceable into the cavity of the organ, cannot be a perplexing affection.

For *inverted uterus* it can hardly be mistaken. Even if the growth has remained in the vagina, or in the cavity of the womb, during the whole of pregnancy, and has, after labour, either by its own weight or by uterine action, been pushed beyond the os externum, thus inverting the uterus and vagina, there may be difficulty in replacing the parts; but there can scarcely be an error of diagnosis, as the very spot from which the polypus has grown would then be clearly seen, and the distinction between the natural and diseased structure easily made. In every other case, the unchanged position and depth of the vagina, the presence of the os uteri in its natural site, and the generally smooth surface and the insensibility of polypus, would be sufficient guides.

From scirrhous or hard tumour, by the absence of pain, induration about the cervix, and by the existence of a pedicle.

From cauliflower excrescence, by its smoother, not granulated surface, its greater density, its capability to bear handling without hemorrhage, and its pedicle. Nor must it be supposed, in all cases where the surface is rough and uneven; where blood follows an examination; where there is pain and watery discharge, which may be only mucus, thinner than usual and colourless; and where there is occasional fetor about the discharge, —that the disease is necessarily malignant, or that the ligature may not be beneficially applied; often, as has been observed at page 393, whatever may be the final result, there ought to be no hesitation about removing the diseased mass, where it can be done; for it is impossible to tell infallibly by touch, whether the growth is so malignant that it will grow

again, or how many years may be added to life by a timely operation.

Prognosis.—So long as a polypus continues attached to the uterus, there must be danger. Sudden and large hemorrhage, or less but frequent bleedings, may exhaust and destroy the patient, or more probably, dropsy of some of the great cavities will occur, and death be thus more gradually induced. Prolapse and inversion of the uterus, and the dangers attendant on labour, complicated with polypus, have been already pointed out. If, however, the disease be ascertained and removed before the constitution is seriously injured, and if there be no diffuse induration of the uterus or disease of the lungs, a recovery may generally be predicted.

Pathology.—There are few diseases which have excited more controversy than polypus uteri; it being a generic name for a class of growths, springing from different parts of the uterus, and which, while they possess one attribute in common, viz., that of spontaneous hemorrhage, differ materially in form, structure, density, and position. Thus, while some polypi shut up in the uterine cavity, give rise to formidable and sometimes fatal bleeding; others, which quickly pass through the uterine orifice, filling more or less the vagina, and occasionally appearing as pendulous tumours between the thighs, bleed but slightly.

For practical purposes, it would be sufficient to divide these growths into the *hard* and *soft* polypi; but our improved pathology demands greater precision. The most common of all is the *fibrous* polypus, and it certainly far exceeds in frequency any other kind.

Of *soft* polypi there is a variety, and their different designations by authors prove that between them there must be considerable pathological distinction. Thus the terms *glandular*, *vesicular*, *mucous*, and *cellular*, are but so many attempts to characterize a polypus softer, slimy, and more vascular than the fibrous species. There is also a peculiar polypoid growth, originating from disease of the glandulæ nabothi of the cervix, which is pediculated, of moderate size, lobulated in form, and somewhat resembling nasal polypi. This is generally swollen, and filled with a viscous fluid; but polypi are not always round and pediculated, being sometimes cylindrical, without any se-

paration into stem and bulb. Lisfranc, following M. Malgaigne, enumerates five varieties:—The *vascular*, the *cellulo-vascular*, that consisting of *hypertrophy of the tissue of the uterus*, the *moliform*, and the *fibrous*.

The *fibrous* polypi vary considerably in several important particulars. Some are hard and tuberose; and these, when complicated with fibrous growths in other parts of the uterus, may be regarded as the same disease, suspended from larger masses by the formation of a pedicle, and by descent through the os into the vagina. In such cases, bleeding, leucorrhœal, and especially purulent discharges, and more rarely ulceration or breaking down of the separated portion will occur, and its removal by the knife or ligature is called for. Not unfrequently the fibrous polypus is *fleshy* and *red*, resembling the larger muscles; or, it may be harder and firmer, of a pale yellow, grey, or even white colour, but slightly vascular. I have seen this species of *fibro-cartilaginous* hardness, but never, as Lisfranc mentions, *either partially or entirely ossified*. Fibrous polypi differ much in their density; sometimes they are of soft consistence, or partially hollow, containing distinct blood-vessels, or cysts filled with grumous blood, or as in one or two instances, gelatinous matter and hair, or fat with hair. Their external covering is generally derived from the mucous membrane of the uterine cavity; and if their base, instead of being extensive and hard, is superficial, and immediately underneath the lining membrane, they quickly become pediculated, and from a very early period of their existence they are pendulous. Polypi are devoid of nerves, and are therefore insensible. Occasionally, however, it is probable, that portions of the uterus grow into, and form a part of the morbid structure itself; thus accounting for the continued, and sometimes severe pain produced by the first application and subsequent tightening of the ligature. It is not difficult to imagine, where a polypus has originated in the structure of the uterus, deeper than the mucous membrane lining its cavity, that for a time it will be imbedded amongst the uterine fibres; but as it grows towards the cavity, these fibres being distended and thinned, will eventually give way; and the polypus will henceforth be covered almost entirely by mucous membrane, that portion of the polypus only

nearest to the uterus being invested by the proper tissue of the organ. Nor is it very uncommon for the greater part of a polypus to be covered with an adventitious coat, partially or completely organized, the product of repeated inflammation. In this way the sensibility of some uterine polypi may be satisfactorily explained. In a polypus I lately removed by excision, an adventitious layer, distinct from the smooth mucous covering, was easily peeled off the bulbous portion, but it scarcely extended to the stem. Lisfranc says, the envelope varies in thickness, but is generally loosely attached, excepting at the base of the tumour, occasionally so much so, that *enucleation* can be effected with facility. "The envelope" according to this author, "usually alone forms the peduncle of the tumour, and it is not unfrequently perforated or absorbed, so as to expose the polypus at one or several points; and in a few rare cases, M. Lisfranc has seen it completely removed almost to the point of attachment to the tumour."

The source of the vascularity of polypi has elicited great diversity of opinion; but it may now, I think, be regarded as a settled point, that they are supplied by blood-vessels of their own, communicating with those of the uterus. Dr. Oldham has recently investigated this matter, and he regards their vascularity as residing essentially in the investing or connecting portion of the proper tissue of the womb, the arteries being enlarged, but very insignificantly as compared with the veins. "The amount of blood vessels" he says, "in the fibrous growth itself, varies with the compactness and density of its structure; qualities which are produced in part by its infiltration with calcareous grains. When the growth is of long standing, and very hard, the supply of blood-vessels, as shown by injection, is very scanty; but in more recently-developed tumours, large and numerous arteries are seen proceeding from the uterine tissue into their substance, running in their intersecting lines, and dividing freely in the fibrous tissue. What has struck me, however, as peculiar is, that the veins, although closely collected around the growth, do not appear to enter it. I injected a specimen a few months since, when the red fluid, which had been thrown into the arteries, had penetrated the tumour freely, and the trunks subdivided into very minute capillaries, running parallel with

the clear unstriped elementary fibre of the growth; the veins, which had been filled with a yellow fluid, were not made apparent in the fibrous tumour, although they were very well injected around it, and throughout the uterus, and very beautifully demonstrated the capillary rete on the external serous surface of this organ. A polypus, then, of this kind, is composed of a fibrous growth, with more or less of uterine structure, covered by the mucous membrane of the womb. The anatomical elements of the fibrous growth are a clear unstriped fibre, closely packed, interspersed in some instances with crystalline calcareous grains (the existence of which has long been known as a chemical constituent of them), and minutely divided arteries. On this point I may incidentally notice, that their minute structure adds one more to several other considerations which might be cited, excluding the fibrous tumours of the uterus from the class of malignant diseases."

I may say, that I have seldom tied a polypus where any bleeding occurred after the lapse of a few hours from the noosing; and further, that in only two or three instances, after either tying or excision, has there been any alarming loss of blood. It is not easy to understand, if the bleeding did not arise from the polypus, how Dupuytren could be correct in asserting, that, after his many operations by excision, alarming hemorrhage scarcely ever occurred. Bleeding, after either ligature or excision, will probably depend on the condition of the uterine tissue surrounding the base of the polypus. If this and the structure beneath are healthy, there will rarely be hemorrhage; if, on the contrary, they are soft and highly vascular, bleeding may occur.

These pediculated tumours may inflame, suppurate, and ulcerate; nor are these changes confined to the vascular covering, for abscesses have been found in their interior, by Dupuytren, Lisfranc, and others. I have often known inflammation produce adhesion between the surface of the polypus and the channel of the neck of the womb, thus increasing the necessity, if the ligature be employed for their removal, that it should not be applied so high as to endanger the inclusion of a portion of the proper tissue of the organ. In one case (No. 77), I entertained scarcely a doubt of malignant change,

and I have known polypi become, before removal, soft, and apparently infiltrated with serum. M. Lisfranc says, he has repeatedly seen fibrous polypi undergo cancerous degeration! I append an account of a polypus injected and examined by Mr. Sibson, now of the Nottingham Hospital, and myself.*

Treatment.—There can be no doubt of the propriety of the removal of a polypus when within reach, as a spontaneous cure rarely ever occurs, and there are but few instances where the danger does not progressively increase. I have twice known the peduncle so attenuated by the weight of the bulb, that it has broken prior to the operation. In one of the cases, I had prepared to tie the polypus, in the ward at the Hospital, but on introducing my finger, I found it detached and brought it away. I have never met with an instance where spontaneous cure has arisen from strangulation of the pedicle, by the neck of the uterus; but I have preserved the bulb of a polypus, which separated spontaneously from its root, apparently by ulcerated rupture at its base; the bulbous detached portion weighing several ounces. This polypus I had several times examined, and I should

* "When first received, the polypus was exceedingly soft and pulpy, from putrefaction. By means of a blow-pipe, vessels running on the surface were inflated; but from the pulpiness of the mass, it was impossible to insert an injecting-pipe. Mercury was, however, thrown into the vessels; but when it had run a very short distance, a vessel into which it had entered, whose calibre it was distending, gave way; and although its further escape was arrested by gentle pressure, the injection being continued, the mercury again burst forth at an adjoining part.

"The polypus was now immersed in weak spirit for several days, and its consistence was thus rendered much firmer. Mercury was again thrown in, by the pressure of a few inches of its own column; and although a great quantity escaped by the vessels terminating on the surface, yet a considerable number were filled.

"The growth was rendered transparent by drying, so that the injected vessels might be more easily distinguished. During the process, much of the mercury was necessarily driven out, through the numerous apertures on its surface. A section of the polypus was then made, that the comparative vascularity of the surface and substance might be better observed.

"The superficial vessels, which presented numerous anastomoses, varied in size, from a dimension little more than a hog's bristle to that of a crow-quill. They ran in various directions, some of them having a convoluted appearance.

"At the centre of the polypus there was a vessel, which originated in the peduncle, and ran in a straight direction for about an inch: when it had reached the bulb of the polypus, it became extremely tortuous in its course: it was about the size of a large crow-quill. There were several smaller vessels in the substance of the tumour."

have removed it; had not this natural detachment occurred. A polypus may be shut up in the uterine cavity, its existence being presumed from the hemorrhages, or it may not have descended, or it may be too large to pass through the uterine orifice. Under such circumstances, we must endeavour to controul the bleedings, to support the constitution, and hasten the descent of the morbid growth. The recumbent posture, quiet, the application of cold, and plugging the vagina with soft dry tow, are our resources. Iced water and digitalis, and nutritious, unstimulating diet, must be given; but the most favourable result can only place the patient in a state of temporary safety; removal is truly the only alternative. M. Lisfranc says, he succeeded in breaking up two intra-uterine polypi, by what he terms (arachement) *avulsion*, they having previously become soft and pulpy. In one instance, while attempting to depress a polypus for the purpose of excising it, he heard a sound, as if something had given way, and he found the polypus completely detached.*

The same surgeon dwells on "*enucleation*" as a *frequent means* of removal, both for polypi and fibrous tumours, whether situated *completely* within the cavity of the uterus, or *partially* in the vagina (p. 137). In one case, he perceived that the envelope of a fibrous polypus, consisting of a thin layer of the tissue of the uterus, was torn; he passed his index finger through the rent, and *enucleated the tumour with the greatest facility*. In another instance, enucleation was accomplished *in a few seconds*. In a third example, where a fibrous tumour, as large as the clenched hand, protruded into the vagina, its envelope was lacerated with the finger nails, and the contained tumour at once turned out. From a perusal of M. Lisfranc's essay, it is quite clear, that polypi still within the uterine cavity are not beyond the reach of his knife. "We made an attempt," (pp. 242-8) he says, "to excise an intra-uterine polypus; but the peducle could not be detected, and a portion of the tumour, estimated at about half its bulk, was cut away; the part left behind, however, sloughed, and the patient perfectly recovered!" These, and other processes, are propounded by M. Lisfranc; but it is a matter for congratulation, that such things do not require to be done in England.

* Clinique Chirurgicale, Tome troiséme, Paris, 1843, p. 39.

Polypi may be removed by *Ligature* and by *Excision*. *Torsion or twisting off* has been practised occasionally, and Siebold has successfully used the actual cautery.

Of the last method I have no experience, and I can see no reason why it should be employed. *Small* and *cellular* polypi of loose texture, may be seized either with the finger and thumb, or with a pair of forceps, and twisted gently round till the stalk gives way: this will be done without any hemorrhage. If the pedicle be too thick and firm for torsion, it is better to resort to one of the other operations.

Removal by Ligature.—In England the ligature has always had a decided preference, and no better proof of its safety and utility can be adduced, than the general success attending its application. If a polypus can be noosed beyond its most bulbous part, in nineteen out of every twenty cases, the hemorrhage will be restrained; and more conclusive testimony can scarcely be adduced, than that which supports this statement. From the imminent danger of the disease—its bleedings—the patient is almost invariably, and at once secured by the successful application of the ligature. There may be difficulties in fixing it, and no doubt death has occasionally followed its use. But excision cannot always be practised; and the cases where it is difficult to apply the noose, are the very examples in which we should be afraid or unable to excise. Where excessive pain, inflammation, gangrene, and death have occurred, the ligature must have been incautiously used, or too long continued; although even in these instances, the evils might have been averted by timely removal. Not so, however, with excision: how much blood may be lost in the division of the pedicle, or how great the difficulty of stopping the hemorrhage, can only be conjectured prior to the severing of the growth. The hazard must at all events be encountered.

Though preferring the ligature as the safest and most universally applicable practice, I fully admit the value of excision, and especially of excision below the ligature; but, notwithstanding this admission, I still concur in the opinion of Gooch, "that the cure of polypus of the uterus (by ligature) affords one of the most striking instances of the triumph of our art."

The great mischief to be avoided is the inclusion of a portion of the os uteri within the loop of the ligature, which might

produce all the evils pointed out.* But this error can scarcely be committed, where the polypus is fairly in the vagina, if the operator is content to noose it just above its bulbous portion.

It is important that the bladder and rectum be emptied; and although usually the best position for performing the operation is on the left side, close to the edge of the bed, the size, and form, and exact site of the polypus may require that the patient should lie on her back. It is unnecessary to dwell either on the instruments for tying, or on the different ligatures which may be used. The double canula, invented by Niessen, and improved by Gooch, is certainly superior to all others. To this instrument Laundy has ingeniously appended a silver windlass, which renders it quite perfect. The tightening of the ligature, without the windlass, especially when the whip-cord, from having been soaked in the discharges, has become dry and stiff, is really difficult; nor is it possible to do it with accuracy. Too much may be done, and painfully, or the ligature may be loosened in the attempt, and thus fail of its great purpose the interruption of the circulation of the polypus, and the consequent destruction of its vitality. But, where the windlass is used, the whip-cord may be exactly and easily tightened, without the least fear of slipping, by which accident the rounded points of the canulæ might be driven into the vagina.

Another point of consequence, especially where the stalk is thick and firm, is to have the connecting rod long enough to reach within a quarter of an inch of the extremities of the canulæ. This rod binds the canulæ together, after the polypus is noosed; and if, as in Dr. Gooch's instrument, it does not reach higher than within one or two inches from their extremities, it permits them, when the ligature is tightened, to separate too widely, and thus the whole of the stalk is not so tightly grasped, and a longer time will be required for cutting it through.

It must not be supposed that it is an easy matter to noose every polypus. The ligature may slip; and it may sometimes be thought that it encircles the stem, when it has not passed

* M. Dupuytren is reported to have met with eight or ten fatal cases after the use of the ligature, all of which presented the symptoms arising from absorption of pus into the system.

round it. Any attempt to draw the ligature tight will prove the error; nor in difficult cases will it avail for any good purpose, to be in haste or forcibly to attempt the noosing. In this, as in every other operation having to be done out of sight, gentleness, patience, and tact alone can ensure its safe completion. Often when I have been foiled, and the ligature has become moist and slippery, the substitution of a new piece of whip-cord has facilitated the tying; nor is change of position an unimportant expedient. The operator must not be deterred from proceeding by hemorrhage; this very bleeding justifies continued efforts.

Silver wire has been recommended; but Burns says it is apt to twist, or to form little spiral turns, which impede the operation, and may eventually cut through the tumour. Silk cord, strong thread, or whip-cord may be used; to the latter I give the preference, and now invariably employ it.

The following are Gooch's directions, and as it is impossible to express them more clearly, they will be given in his own words:—

"The instrument which I use for this purpose, and which in numerous cases has assisted me through the operation, consists of two silver tubes, each eight inches long, perfectly straight, separate from one another, and open at both ends. A long ligature, consisting of strong whip-cord, is to be passed up the one tube and down the other, and the two ends of the ligature hang out at the lower ends; the tubes are now to be placed side by side, and, guided by the finger, are to passed up the vagina, along the polypus, till their upper ends reach that part of the stalk round which the ligature is to be applied; and now the tubes are to be separated, and, while one is fixed, the other is to be passed quite round the polypus, till it arrives again at its fellow tube, and touches it. It is obvious that a loop of the ligature will thus encircle the stalk. The two tubes are now to be joined so as to make them form one instrument; for this purpose, two rings, joined by their edges, and just large enough to slip over the tubes, are to be passed up till they reach the upper ends of the tubes, which they bind together immovably.

Two similar rings, connected with the upper by a long rod, are slipped over the lower ends of the tubes, so as to bind them in like manner; thus the tubes, which at the beginning of the operation were separate, are now fixed together as one instrument. By drawing the ends of the ligatures out at the lower external ends of the tubes, and then twisting and tying them on a part of the instrument which projects from the lower rings, the loop round the stalk is thereby tightened, and like a silk thread round a wart, causes it to die and fall off."

The latter part of these injunctions will of course be unnecessary, where the double canula is fitted with a windlass.

The frequency with which the ligature is to be tightened will in a great measure depend on the pain it may produce, and whether constitutional irritation and fever arise. If these do not occur, the ligature should be shortened by one or two turns of the windlass every morning, or night and morning. The fetor of the discharge and its acrimony may be lessened, by squeezing once or twice daily into the vagina, a few ounces of warm milk and water or camomile tea. An elastic bottle with an ivory tube, which is easily passed by the side of the canula, is the best injecting instrument.

It may be necessary occasionally to empty the bladder by the catheter, and mild aperients may also be required. Hot fomentations of gin and laudanum, or of poppy-water, or a linseed meal poultice, will soothe abdominal pain, if it be dependent only on irritation. But if the pulse be quick and hard, if there be much fever, and constant and severe abdominal pain, aggravated on pressure, the ligature must be removed. Its continued use may lead to fatal peritonitis. Often, however, by slackening the ligature, which is easily done where there is a windlass, and when the symptoms have somewhat subsided, a very gradual re-tightening will avail for the perfect strangulation and subsequent destruction of the polypus. Unless the symptoms are threatening, we must not hastily give up the operation; but there should be assiduous watchfulness.

I have never met with polypi insensible to the influence of the ligature. Such cases have occurred; and one is related by

Mr. Porter of the Meath Hospital, where there was no progress from the application of the ligature *(Query, was it sufficiently tightened)*, it was removed by the knife.

Excision.—Many of the disadvantages attendent on the use of the ligature, are avoided when a polypus is excised. It is quickly done, and without pain or injury to the neighbouring structures. But is it quite certain that we can always guard against the risk of excessive or fatal hemorrhage? That there are many polypi which may be so removed, does not admit of doubt. Dupuytren is said to have cut away two hundred polypi by the knife, and hemorrhage only occurred twice. Velpeau's experience is favourable to excision, and Sir Benjamin Brodie has been fortunate in similar operations. Many other names might be mentioned. I have also removed several polypi by excision. On one occasion the hemorrhage required the plug; in the other cases little or no blood was lost. But, if the polypus be large and of hard structure; if it be of the white kind already mentioned, as having scarcely any blood-vessels; if there has been but slight hemorrhage during its growth; and if there be no pulsation in the stalk—excision will be the preferable practice. Or, if the operator incline to be cautious, he may noose it first, and either immediately, or in a few hours afterwards, excise below the ligature.

If the polypus be still partly within the uterus, and the hemorrhages are endangering life, the ligature may be employed; but here it would be impossible, at least with safety, and without forcibly dragging down the uterus, to use the knife.

Polypus, complicated with inversion of the uterus, either in the unimpregnated or puerperal states, will be discussed when treating of inversion of the womb.

The mode of operating by excision is not difficult.

The patient being placed either on the back or side, and close to the edge of the bed, the polypus may be seized by a pair of dressing forceps, or by the instrument of Museux, and drawn as far as possible, without violence, towards or beyond the external parts. It is then to be fixed by the operator, and divided just beyond its bulbous portion, or as far up the stalk as can be

done with safety to the os or cervix uteri, either by the bistoury or the clip of the scissors.

In cases where the growth is small and the vagina long, it is not possible to draw it down to the external parts; in such cases, either a curved knife, blunt, and rounded at the extremity of its blade, or a pair of blunt pointed and curved scissors, guided by the finger of the left-hand, may be carried up to the polypus, and thus cut it across. If, after the operation, there be bleeding, or a danger of it, the patient must not be left. A plug of dry tow, and an astringent injection of alum may be used; and in cases of excessive bleeding, turpentine, caustic, or even the actual cautery may be necessary.

Case 71.

The following Four Cases were reported and condensed by Mr. Henry Oldham.

Elizabeth H——, aged 44, was admitted into Mary's Ward, in April, 1833, under Dr. Ashwell. She is an unmarried woman, and has usually enjoyed good health. This was interfered with three years ago, by a profuse flow of the catamenia; succeeded by such irregularities in the performance of the function, as to induce the persuasion that it was about to cease.

These passive hemorrhages were sometimes very copious, and not unfrequently a pint has been expelled at one gush. The character of this discharge changed about two years since, and assumed the appearance of coffee-grounds; becoming also more irregular in its recurrence, and very offensive. This last peculiarity, however, was not constant: in the absence of a red discharge, there was one of a mucous kind.

She now complains of great lumbar pain, extending to the sacrum, with rigors, on the accession and going off of the sanguineous discharge. There is no bearing down, nor pain on micturition; but she

occasionally feels a mechanical obstacle to the free exit of the urine. She experiences a sensation of fullness about the vagina, and a distressing sense of weakness on making any exertion. Her countenance and general surface are exsanguine; and though not absolutely emaciated, yet the flabby condition of her muscles indicates imperfect nutrition. The cerebral symptoms consequent on hemorrhage are present, and the legs and ankles are œdematous at night. Dr. Ashwell examined, and entered the following report:—

"I find a polypus attached to the fundus, about the size of a hen's egg. The finger easily encircles its peduncle within the cavity of the uterine neck, and it extends half way down the vagina. Its structure is firm, and insensible to the scratch of a pin."

She was ordered to take tonics, and to maintain the recumbent posture, and in a few days the polypus was noosed by ligature. The double canula was the instrument employed, furnished with a piece of whip-cord of suitable length and thickness. The patient was placed at the edge of the bed, in the usual obstetric position. The forefinger of the left hand was passed over the enlarged portion of the polypus within the vagina, resting a little below the cervix. The canula was thus directed to the spot, and one of the tubes was carried round the polypus; and on regaining its fellow, was adjusted within the receiving tubes. The ligature thus applied was tightened, and its free extremities twisted round the shoulders of the instrument. The patient did not complain of the slightest pain, but spoke of an obscure feeling of strangulation in the part. The ligature was daily tightened; and the vagina was occasionally washed out with warm water. The polypus was separated, and came away with the instrument on the eighth day after the operation, appearing much diminished in size.

From the time the ligature was applied, there was no further discharge. The patient daily improved, and she was shortly presented, cured.

Case 72.

Jane J——, aged 47, a single woman, of slim make, whose aspect and sunken features conveyed the external symptoms of malignant disease, was admitted into the Hospital, under Dr. Ashwell, in August, 1834.

Her health has generally been feeble; but, with the exception of se-

veral hysterical symptoms, it did not materially suffer until three years since: at this time the catamenia, which had hitherto flowed naturally, became very profuse, lasting twelve or fourteen days, and attended by clots. A copious, purulent, and very fetid discharge succeeded this passive hemorrhage, and alternated with the menstrual flow. With the exception of rather too profuse menstruation, she did not suffer from hemorrhage during the growth of the polypus; but her present attenuated and very weakened state seems attributable to the purulent discharge, which continues unabated.

An examination was instituted by Dr. Ashwell, who reported:—

"I find the vagina completely filled up by an insensible pyriform body, which almost protrudes through the external labia. This growth is encircled by the os uteri; but the finger can pass between them, excepting at the posterior part of the interior of the cervix, where the polypus is attached; and here the os is attenuated."

The bowels were regulated; and sulphate of quinine, in the compound infusion of roses, was administered. On the 27th of August, the polypus was tied; and when the ligature was tightened, the patient did not complain of pain. In the evening, there was some abdominal tenderness, which probably arose from a distended bladder. The catheter was passed, and an opiate administered. She experienced no further suffering: the ligature was tightened daily: and on the 5th of September, nine days from the operation, the polypus was cut through, but with some difficulty, owing to the smallness of the vagina, withdrawn. It is worthy of remark, that the discharge ceased after the polypus was tied, nor has it since recurred. Her general health rapidly improved, and she soon left the Hospital, cured.

Case 73.

Mary-Anne W——, aged 35, the mother of three children, but now a widow, has been suffering for the last two and a half years from uterine hemorrhage. This occurred, without any premonitory symptoms, in profusion; but has since been diminished in quantity, but constant. She is now the subject of anæmia, the surface being uniformly blanched; and her general health has been daily declining.

On examination, a polypus was discovered, just protruding through the os, insensible to pressure. It was probably attached to the body of the uterus, as the finger could be passed round the cervix.

The loss of blood which this patient was daily sustaining, determined Dr. Ashwell to attempt to strangulate the polypus; but its very slight descent, and the unusual length of the vagina, frustrated the endeavour. On the evening of the same day flooding occurred; the pulse was almost imperceptible at the wrist; the pupils contracted; and she appeared comatose. Active measures were employed to arrest the hemorrhage, which was accomplished by plugging the vagina. She gradually recovered from this attack; and a longer instrument having been procured, the polypus was tied on the 4th of October.

No further hemorrhage occurred, nor did the patient experience any pain; and on the eighth (four days after the operation) the polypus was cut through. This woman regained her former health and spirits, and left the Hospital quite well.

Case 74.

Georgiana W——, aged 34, was admitted October 23, 1834. She is a delicate strumous woman, and was delivered of a six-months' child ten months ago. For the last two years she has been supposed to labour under menorrhagia, and every variety of treatment has been employed without success. To arrest the hemorrhage, she attended as an out-patient at the Hospital, and the secale cornutum was administered; but as the discharge continued, she was examined. A large polypoid growth was discovered, partly protruding into the vagina, but encircled by the os and cervix, the former of which was exceedingly attenuated. Scruple doses, repeated three times, of the secale cornutum were administered, with the hope of procuring a further protrusion of the polypus, and its release from the embrace of the os and cervix. This had the desired effect, and Dr. Ashwell tied it without difficulty. The catheter was passed for two days after the operation, which was not accompanied or succeeded by pain. Warm-water injections were used during the separation of the polypus, which was accomplished in eight days' time. This patient recovered without a bad symptom.

Observations.—The above four cases are not devoid of interest. In all of them an examination had been neglected till the symptoms were so urgent as to forbid further delay; so that unnecessary loss of blood, and to an injurious and alarming extent, was the result of this great practical error. In one instance there was no hemorrhage, but a constant secretion

of pus: nor does it appear that such a process was better supported than loss of blood; for the patient, in case 72, was more anæmiated, and had more of the malignant aspect, than any of the other patients. Excepting (in No. 73) where the polypus had only partially emerged from the uterine cavity, there was no difficulty in the operation; and even there, a longer instrument rendered the noosing of the growth easy and safe. In none of the patients were there any after-symptoms, inducing solicitude or risk. In all of them the hemorrhage ceased immediately on tightening the ligature; nor did it again occur,—a tolerably good proof that the hemorrhage, in these instances at least, arose from the growth, and not from the uterus.

Case 75.

POLYPUS, COMPLICATED WITH SCIRRHUS OF THE UTERUS.

For the dates and other particulars of this case, I am indebted to Mr. Thomas Hawkins of the Kent Road, who attended with me.

Mrs. B——, æt. 49, of wan and emaciated aspect, has been married twenty-five years, and is the mother of seven children. She has often miscarried, and since the last abortion, seven years ago, having previously enjoyed good health, has suffered from bearing down of the uterus, slight difficulty in evacuating the rectum and bladder, and constant mucous, and occasionally sanguineous, discharges. Soon afterwards the difficulty of micturition increased, and the retention was so complete, that her medical attendant was compelled for some weeks to draw off the urine by the catheter.

In July, 1835, I first saw Mrs. B., and found a firm and smooth polypus occupying nearly the whole vagina, and growing by a very broad base from the lower part of the uterus, involving the posterior half of the channel of the cervix, insensible to the scratch of a pin, and conoidal in form, the apex of the cone being below, and the base above. The posterior lip of the os was obliterated, and the anterior was thin and expanded. The uterus itself was indurated, and so enlarged from scirrhus, as to fill the lower half of the abdomen. As the purulent discharge was constant, and her strength so much exhausted as

to compel her to lie almost constantly in bed, I tried to apply the ligature, but after several attempts, being foiled by the size and form of the tumour, I proposed excision. To this she would not then assent, and I was not again called to see Mrs. B. till March, 1841.

The polypus now not only fills the vagina, but protrudes many inches beyond its orifice; it is dark coloured, partially ulcerated, and sloughing. The patient is very weak and emaciated, the purulent discharge constant, and the smell exceedingly offensive. Since my last visit, there has not been any rapid growth of the tumour, no pain, except from pressure on surrounding parts, and difficulty in evacuating the bladder and rectum, and but few large hemorrhages, these having been superseded by the increasing purulent discharge. The disease in the body of the uterus has not increased; but the vagina is so entirely filled, that it is impossible to ascertain the condition of the os and cervix. Since the polypus has descended so low, and particularly since its expulsion beyond the external parts, the abdominal distension is less; but since ulceration has commenced, her health has more rapidly failed. The pulse is quick and feeble, appetite nearly gone, and she has constant fever, with nightly exhaustion from want of sleep.

On the 23rd March, 1841, as she was exceedingly anxious to have it done, a ligature was tied round the growth, three inches within the vagina and the portion below, weighing more than eight ounces, was removed by a bistoury. There was neither pain nor bleeding. The cut surface presented a white, fibrous structure; there were rather numerous bloody points; but no cells or large vessels. The mass thus removed was washed and carefully examined, but it was too soft and sloughy to permit accurate observation.

The ligature came away on the 31st of March, bringing with it a portion of the polypus, decomposed and offensive. An examination proved that the upper part of the vagina was still partially filled by a growth, firmly consolidated with the posterior lip of the os; but her health was better, and sometime afterwards I heard she could get out of bed, and to a certain extent, resume her usual occupations. The uterine scirrhus, if advancing at all, does so very slowly.

Case 76.

REPORTED BY DR. JOSEPH RIDGE.

Hannah T——, æt. 49, a washerwoman, was admitted under Dr. Ashwell, into Petersham Ward, September 24th, 1836, with a sallow coun-

tenance, congested cheeks, livid lips, and hurried respiration, and all the aspect of chronic visceral disease. She states that her life has been laborious, that she has borne seven children, has not indulged in spiritous liquors, and has enjoyed good health till within the last six years. During this period, especially since April, menstruation has been profuse, not unfrequently passing into flooding. It is evident from examination by the stethoscope, that there is extensive organic disease of the heart, and of the left lung, which is entirely irrespirable. There is no lumbar or pelvic pain; pulse 120, very small and feeble; there is slight anasarca of the lower limbs.

September 25th. The countenance is increasingly turgid, and the dyspnœa greater. Percussion affords a very dull sound over the whole of the left lung, and auscultation reveals no respiratory murmur, but only a bronchial respiration, and bronchophony is distinct at the apex. The heart's impulse is diffused and somewhat tumultuous. A "bruit" is heard to the left of the sternum, just before the second sound.

The face and limbs bear increasing signs of obstructed circulation and respiration; complains of being uneasy all over, and says she has a flow from the vagina. Examination detects a growth from the uterus, projecting into the vagina, circular and smooth, but softer than the majority of polypi.

A few hours afterwards she died.

Sectio Cadaveris.—I pass over the examination of the heart and lungs with this observation, that their diseased state was precisely what might have been anticipated as the result of long continued loss of blood.

The uterus was elongated: when laid open, a polypus larger than a hen's egg was seen to hang out of its cervix, the rim of the os being lost in the vagina, which was slightly distended for the accommodation of the tumour. The peduncle was short and thick, growing broadly from the posterior part of the uterine cavity, just above the cervix. The investing membrane of the polypus was of dark colour and greenish, and at one point slightly excoriated. The interior was white, and but moderately injected with blood-vessels: its texture was not very definite; there was some appearance of uterine fibre; and there were also numerous soft and whitish bodies, about the size of small peas, imbedded in coarse, loose, reticular tissue. The mass, when cut into, was flabby and very yielding, but not at all inclining to softening or destruction.

Observations.—This case is narrated to show the extreme danger of neglecting examination. The polypus had probably been long in the vagina; and as the worst symptoms were of recent date, its removal six or eight months previously might have prevented both the pulmonary and cardiac disease.

Case 77.

REPORTED BY THE CLINICAL CLERK.

Mary C., æt. 30, was admitted under Dr. Ashwell's care, July 5th, 1838. She is of sallow complexion, although of healthy family, and has dark hair and grey eyes; has been married ten years, and is the mother of five children.

A month after her last confinement, in 1837, she suffered pain during intercourse, and had a constant puriform discharge. These symptoms were followed by prolapsus and hemorrhage, and, on the first flooding not less than three pints of blood came away in one or two minutes. From that period, up to the present, July 5th, 1838, there has scarcely been a day without discharge, more or less copious, either of fluid or coagulated blood.

An examination detects a tumour in the vagina, as large as an orange, more or less round, quite insensible and attached to the posterior lip and side of the os, leaving a passage into the uterus anteriorly. It was tied without difficulty on the 6th of July, the ligature coming away on the 19th, thirteen days after the operation. In a few weeks she left the hospital, the stalk of the polypus not having disappeared. There was occasionally slight hemorrhage, but her health had materially improved.

October 19th, 1838.—Mrs. C. has again become an in-patient. The bleedings have returned, and the growth is now so large, that pressure upon it, when she sits down, is painful. There is a copious and offensive watery discharge, and a frequent desire to pass urine, which is always done with burning pain. Diarrhœa has lately come on; the pulse is 84, and compressible; the tongue clean, and there are occasional violent headachs. No appetite, much perspiration, and considerable emaciation.

November 2nd.—A ligature was applied to-day, and in the evening she complained of pain, the pulse rising to 120. On the 4th November the ligature was tightened, and on the 5th it came away, during the evacuation of the bowels, with a portion of the growth.

From this period to December 11th, her health was seriously impaired by frequent purulent and sanguineous discharges; and on examination the vagina was found to be nearly filled by a fungoid growth, so soft as not to permit of its being noosed. Strong astringents were thrown into the canal, and tonics and good diet were freely exhibited. In January, being threatened with phthisis, she was made an out-patient; strict injunctions being given for the observance of the recumbent posture, and the use of the astringent injections. In a few months she rallied; the growth sloughed, and in December 1842, I had an opportunity of seeing her quite well.

Remarks.—This is a deeply interesting case. Hardly a doubt was entertained of the malignancy of the growth, and when the threatening of phthisis occurred, there seemed no chance of recovery; yet even here a cure took place almost independently of remedies, and during 1841 she became the mother of a living child.

MALIGNANT GROWTHS AND ULCERATIONS OF THE UTERINE CAVITY.

MALIGNANT growths arising from the cavity of the womb are rare, if we except those arising during the progress of carcinoma. I have, however, seen two specimens of fungi in this situation, unconnected with cancer. In one, an out-patient at Guy's, which destroyed life by bleeding, the growth reached nearly to the cervix, being raised about a quarter of an inch above the surrounding tissue: but in most of these instances the productions were probably connected either with polypi, moles, hydatids, or cancer. It seems hardly necessary to dwell at length on these affections, as the symptoms must be doubtful, so long as the growth is confined within the cavity, notwithstanding the aid to be derived from examination by the rectum and vagina. Still, if blood be lost frequently, and in large quantity, if there be

burning or lancinating central pains, emaciation, and fœtid and weakening discharges, the prognosis must be unfavourable.

Although a fatal result may be long delayed, it is almost certain to occur. Singularly enough, however, some of the dangerous diseases of the uterus, in which at first there seems only a very slight chance of protraction, pass into an inactive state, and under favourable circumstances, allow an unlooked for prolongation of life.

The treatment can only be palliative. The strong alum hip-bath (a pound of the salt to a gallon of water),—care being taken that the fluid passes up the vagina—is one of the best remedies. Many other auxiliary means may be tried; and if the diseased mass, or a large portion of it, shall pass into the vagina, it may be removed by ligature, or by any more suitable method.

SPONGOID TUMOUR, OR FUNGUS HÆMATODES UTERI.

Burns has adopted the former, and Dr. Francis Ramsbotham the latter designation. I have seen but one example of this very rare disease, and even here an examination after death was not permitted. The *history* of such cases differs from cancer, the enlargement not commencing in the cervix, but in the body, and rapidly, as in the case I had under my care, affecting the entire structure. If examined by the rectum, the uterus, much larger than natural, is felt to be lobulated and elastic, and without any induration. Its mischievous effects on the general health are early apparent; the pulse being quickened, the strength rapidly failing, and the stomach and other organs quickly giving way. The pain is said to be agonizingly severe, and occasionally lancinating; and, probably, even before ulceration is set up, there are profuse sanguineous discharges: in their intervals there is an almost constant escape of an offensive, dark-coloured, purulent fluid, which not unfrequently, by its acrimony, excoriates the pudendum. The pain increases as the disease advances, and the final termination is similar to carcinoma. In the case above alluded to, although there were many symptoms resembling cancer, the larger size of the uterus, its

rising above the pubis, and the freedom of the vagina and the rectum from induration, sufficiently established the diagnosis. The os was capacious enough to admit one or two fingers; and ulceration had affected its posterior lip. As to *treatment*, it can only be palliative, and the observations on this subject, appended to the chapter on cancer, are equally applicable here.

ULCERATION OF THE MUCOUS LINING OF THE UTERUS.

This is the least common disease to which the womb is liable: not that there is anything singular in partial ulceration of the cavity, and especially low down, or in the channel of the cervix; but general ulceration of the membrane, with thinning of the walls and dilatation of the cavity, resembling pregnancy, may certainly be regarded as a very unusual event. Such a case I have not seen. Dr. Francis Ramsbotham preserved a preparation of this disease, in which the organ acquired the size of a pregnancy of the fourth month, and where, being turned inside out, it was seen to be everywhere ulcerated. The parietes were not more than a quarter their natural thickness, and there was a ragged aperture at the fundus, large enough to admit three fingers.

Dr. Ramsbotham, senior, and Dr. Gooch seem to be the only authors who have noticed this affection, and it is somewhat singular, that they both record the same case, having seen it together. The following is the history of its progress, and of the appearances observed on dissection, as published by the son of the former distinguished physician:—

"The lady, the mother of a family, considered herself between three and four months advanced in pregnancy; but the abdomen was enlarged to a size equal to what it has usually acquired towards the close of gestation. When my father first saw her, the uterus was distinctly perceptible above the pelvis, large, firm, resistant, and acutely painful throughout its whole extent, on pressure being applied. One portion of it, within the right ilium, was more tender than the rest. She had a dejected countenance, and was suffering under fever, with great irritability of stomach, and excessive irritation over the whole surface of the

skin. She had been the subject of a constant discharge from the vagina for the preceding five or six weeks, in greater or less quantity, sometimes perfectly sanguineous, at others more serous, but devoid of unpleasant odour. Her increase in size had been uniformly progressive, though rapid. As in her last pregnancy, a dropsical state of the ovum occurred, the inordinate enlargement of the uterus was now attributed to the same cause. She became worse, and Dr. Gooch saw her, in consultation with my father and her other professional advisers. On an examination per vaginam being now made for the first time, doubts arose both in Dr. Gooch's and my father's mind, as to the correctness of her opinion that pregnancy had occurred. The cervix uteri was found elongated and thickened, the mouth soft, flaccid, and sufficiently open to admit the passage of the finger within it about half an inch, but no substance could be detected in the cavity. The treatment directed was merely palliative; and as the bad symptoms became aggravated, on another consultation, five days after the former, it was determined to introduce a catheter within the uterus, that the liquor amnii might be evacuted, provided it contained an ovum. The instrument passed high up without encountering any impediment or obstruction; it could be "moved about, as if *in vacuo*." A few hours after this means had been adopted periodical pains came on, with a little increase of uterine discharge: these ceased spontaneously, in a short time exhaustion supervened, and the same day she died.

"On inspecting the body after death, it was remarked that the abdomen was tumid, and soft under the hand, having lost its former firmness. The peritoneal cavity contained a quantity of offensive gas, which escaped on the parietes being divided. The uterus was as large as though six months of pregnancy had elapsed. Its external surface was preternaturally red; it was flabby in texture, and, on squeezing it, some blood escaped through the vagina, mixed with puriform and serous fluid. The parietes were softened, and had much of the appearance of the gravid state. The cavity, which would easily have held the head of a child at birth, contained no fœtus, nor any other substance that could be looked upon as the result of impregnation. The whole internal membrane was destroyed by

ulceration, and the surface was granulated. Adherent to the back part of the body was found a shreddy fibrinous mass, the size of a large egg, entangled among the irregularites of which were coagula and a quantity of bloody puriform matter. At different points near the cervix, the structure was eaten through nearly to the peritoneal covering.

"With regard to the treatment of such a case, we know so little of its nature, that I can only recommend you to palliate whatever dangerous symptoms may arise. If, indeed, we were quite sure the disease under our care was of this kind, astringent fluids, injected into the uterine cavity by a properly contrived syringe, might induce a more healthy action, and, perhaps, in the early stage, be productive of essential benefit."

PHYSOMETRA, OR TYPANITES UTERI.

As the uterus is naturally shut up, and greatly increased in size, during pregnancy, so, in its unimpregnated state, as the result of functional derangement or inflammation of the lining membrane, from death and decomposition of the ovum, from retention of a portion of placenta, which may become putrescent, or from accumulation of the catamenial fluid, the cavity may be closed, and the entire viscus greatly enlarged.

The contents of the womb, under such varying circumstances, must be different. Where, for instance, the solid parts of an embryo have been retained, consolidated by pressure and covered with layers of coagulable lymph, a firm mass will be formed, to which, when expelled, the name of mole is usually given. But where the menstrual fluid is not permitted to escape, however long it may be shut up, it still remains fluid; and there will be no diffiulty, when it has escaped, either spontaneously or by operation, to determine its true character.

The pathology of such diseased actions is soon understood; but it is more perplexing to get at the precise cause of an idiopathic distension of the uterus by gas, and of the process by which the os, in order to allow of its accumulation, becomes sealed. There seems no reason for doubting that these events do occur, Frank, Astrue, and others having accu-

rately recorded their histories. It is probably true, that few if any of these larger collections of gaseous fluid take place, independently of pregnancy, parturition, or organic disease. We can suppose that air, being secreted by the extreme branches of the uterine vessels, may escape involuntarily, and not always silently; but where it is retained, and the uterus becomes gradually distended, so as to produce a real tympanites, inflammation in and round the os must have taken place, or induration and contraction of the canal of the cervix from some more permanent cause.

Mr. Hunter was interested about a case of this kind; but he failed, on an examination after death, in discovering any disease either of the uterus or vagina.

Many singular cases are mentioned by different authors. It is said that air has been known to accumulate in the uterine cavity after the death of the fœtus, or between the amnion and chorion, the fœtus being alive; and Baudelocque was present where the gaseous exhalation occurring after death, was sufficient to expel the fœtus!

Peter Frank, a name of high repute, relates an example, where, after death, the uterus was hard, enlarged, and elastic, and full of gas of a very fœtid smell. There was also ulceration in the cavity, and the neck was indurated. In another case, the os was closed by a polypoid growth. By the same author it is stated, that in the wife of a German physician, the accumulation of gas was so great, that the womb reached from the pubis to the diaphragm.

I have never seen a true case of tympanites—one where the air has been the product of morbid secretion from the uterine vessels, and where, from closure of the os, it has been allowed to collect for weeks or months in the uterine cavity, and has then, either spontaneously or by operation, been expelled; but I have several times been called on to cure explosions of gas from the vagina, which, forming in the uterus, escaped involuntarily, and with so much noise as to prevent the sufferer from venturing into society. In one patient, pregnancy always cured the disease; and Gooch confirmed the uterine origin of the gas in these slighter affections, by the fact, that in a patient of his, the instant pregnancy occurred the malady ceased, returning a few

weeks after delivery. Idiopathic uterine tympanites is no doubt an exceedingly rare disease. Physometra, on the contrary, dependent on chemical change in the secretions, although a rare, is a more common affection. Thus the menstrual fluid, the vaginal and uterine mucus, coagula resulting from menorrhagia or dysmenorrhœa, the ichor of cancer, portions of placenta or of polypi, may, by their partial or entire decomposition, give rise to larger or smaller quantities of gas. A few months ago I had to remove a large mass of partially adherent placenta, which for three weeks subsequent to labour had caused frequent and large hemorrhages. On entering the uterine cavity, which was partially blocked up by a firm coagulum, Mr. Woolnough, a student of Guy's Hospital, and myself, were surprised by the escape of an immense quantity of fœtid gas, doubtless the consequence of the putrefaction of the retained viscus.

The *Diagnosis* cannot be difficult, for although menstruation is suspended, and the abdomen becomes enlarged, and, according to Frank, milk is secreted, still there will be so much elasticity about the tumour, and such disproportionate increase at an early period of the supposed pregnancy, that doubt must arise. This doubt will soon become a certainty as to the non-existence of gestation, by the partial or entire expulsion of the air, and by the consequent diminution of size. A fall or blow, even the sudden bending forward of the body, sneezing, coughing, or vomiting, have induced the discharge of the gas, succeeded by the escape of a more or less sanguineous fluid.

Treatment.—In cases where such accidental circumstances have not led to the cure of the disease, or where the gaseous accumulation causes severe and extensive pain, nausea and vomiting, or difficult breathing, the introduction of a canula, or a long and elastic, yet firm male catheter, will certainly open a channel for its escape. How long the instrument should remain will depend upon the evacuation of the air, and on the likelihood of irritation and inflammation; nor will the management be quite so simple, if adherent masses of placenta, polypoid, or fungoid growths, are the causes of the disease. Some authors, in order to effect a permanent cure, advise the injection of the cavity of the womb with warm water, weak solutions of

chlorine, and chalybeate and astringent lotions. My present experience, independently of the frequent dangerous results of such uterine injections, would lead me to believe that they can very seldom be necessary. The strong alum hip-bath, iron, the various tonics, and in some protracted cases mercury and sarsaparilla may be required.

HYDROMETRA, OR DROPSY OF THE UTERUS.

History and Symptoms.—This, like physometra, must be regarded as a very uncommon disease; but, unlike the tympanitic affection, which is rarely alarming, dropsy of the womb, whether idiopathic or symptomatic, is often dangerous.

Of late, more attention has been given to the morbid condition of the uterine lining membrane; and it has been found that it may, both in the natural, impregnated, and puerperal states, *as a disease of function*, secrete and pour forth large quantities of watery and other fluids. Such being the fact, it is only farther necessary that the os become closed, either by adhesive inflammation, or by some other means, to constitute a case of uterine hydrometra.

As a *symptomatic* affection there is sufficient evidence that it is not an unusual, though certainly a serious malady. Dropsy of the womb may, therefore, be considered *idiopathic*, where, as in Dr. A. T. Thompson's case, the fluid is secreted by the otherwise healthy mucous membrane; and *symptomatic*, where the secretion, whatever it be, is the product of tumours, fungi, or ulcerations of the lining membrane; or where the fluid is the consequence of pregnancy or parturition.

Affections of the uterus, attended with watery discharges, although more frequent than formerly supposed, are still so uncommon, that they can hardly fail to excite the attention of the physician as well as the fears of the patient. Secretions of mucus and pus, and losses of blood scarcely alarm, except when they are excessive: but discharges of pure water are considered the indications of a more alarming state, and consequently medical advice is early resorted to. It is not affirmed, that in every instance such secretions accumulate in the uterine cavity, and con-

stitute a genuine dropsy; they may only partially collect, and the os not being firmly or at all closed, their escape may be nearly constant. Thus, many of the evils of exhaustion will be present, but without uterine enlargement. Being convinced that any information on this subject will be useful, I have given below *

* Some years ago, I met with aqueous discharge from the uterus, very soon after parturition, and I carefully noted the circumstances. Several other cases have since that time occurred in my practice, attended by similar symptoms. One of my pupils at Guy's Hospital, Mr. Cotton, presented to me the notes of the third; and my friend Mr. Burn, of Earl Street, Blackfriars, favoured me with the particulars of the fourth case.

I am desirous to communicate these cases to the profession for two reasons: first, because they are important, and attended with danger; and, secondly, because I can find no allusion, much less a history, of a similar disease of function in any obstetric author I have consulted.

Discharges of water from the uterus are not unfrequent during gestation, and they are occasionally occurring in the unimpregnated condition of the organ. I am, however, disposed to think, that the passing away of pints of watery fluid, soon after labour, by gush, in the first instance, and afterwards by draining, is a rare occurrence. Had it been otherwise, it would certainly have been noticed in some of the valuable works we possess, and it would have become a topic of discussion in medical society.

In the subjoined cases it will be seen that the labours were natural, although somewhat protracted and severe. The patients were delicate women, but free from serious illness: indeed, there was nothing in the labour, or in the condition of the system immediately preceding it, with which the discharge could have been satisfactorily associated, as its cause. The principal dangers, connected with this morbid secretion, appear to be of the inflammatory kind. The weak and rapid pulse, the tenderness and enlargement of the uterus, and the almost entire suppression of the milk and the lochia, plainly point to puerperal mischief; too likely, when the danger is not averted, to terminate unfavourably. It is, perhaps, singular that the mucous lining of the uterus should secrete a serous or aqueous discharge, especially when such discharge of water is not dependent on the membranes enclosing the fœtus; but we know that the mucous lining of the nostril occasionally pours forth large quantities of aqueous fluid; and there seems no reason why, under a like derangement of function, the lining membrane of the uterus may not do the same.

the substance of a paper I published some years since in the Medical Gazette, on "Aqueous Discharge from the Uterus after Parturition." The following case, which I am now attending

That this affection decidedly interferes with the consecutive series of events following parturition, is evident, from the suppression of the lochia and milk, as well as from the scanty secretion of urine: it may, therefore, be placed in the class pyrexia.

I cannot state with certainty what might have been the effect of vigorous antiphlogistic treatment; because, in the cases related, a modified plan was pursued. As, however, the affection may be regarded as catarrh of the uterus, attended by inflammation, cases will probably occur in which depletion to a greater extent will be required. There can be no doubt that the lining membrane of the uterus furnishes the discharge. Under natural and healthy puerperal circumstances, the same membrane, then possessing considerable extent of surface, pours forth the lochia. This secretion, we know, is at first sanguineous, subsequently it becomes paler, but is still mucous; nor is it till many days have elapsed that it assumes a leucorrhœal or serous character. The derangement of function, which is productive of this aqueous discharge, instead of the lochia, is the disease now described.

Case I.—Mrs. G—— was confined on Saturday, November 6th, 1830, of her fifth child. The labour was severe, but perfectly natural.

Sunday, November 7th.—Complains of a good deal of pain in the hypogastric region; the uterus is large and tender; pulse 120, but neither full nor strong. Urine scantily secreted; scarcely any lochial discharge; and the after-pains not at all severe.

Ordered castor oil, bran fomentations to the belly, and six grains of Dover's powder, in common saline mixture, every six hours.

Monday, 8th, 5 P.M.—I was hastily sent for. On my arrival I found the nurse, as well the patient, much alarmed, there having occurred suddenly a very copious gush of transparent, colourless, inoderous discharge from the uterus: at least three pints had escaped. The bed was wetted entirely through, and a pool had formed about the lower part of the patient's person. The fluid had scarcely any taste, and closely resembled water. She was exhausted; pulse quick, 130; and she was altogether hurried and alarmed. There was neither tension nor fulness of the mammæ, indicating the secretion of milk; the uterus was not so large as on the previous day, but very tender to the touch. There has been no lochial secretion, and only a scanty discharge of high-coloured

with Mr. Allender of Mansell Street, is interesting on account of its singularity. Miss —— is twenty-nine years of age, stout, and has hitherto enjoyed tolerable health: menstruation has often been irregular, although generally natural in amount and character.

urine. She was made comfortable by the removal of the wetted linen. A draught composed of *thirty* minims of aromatic ether and the aromatic spirit of ammonia was immediately given, and she was allowed some bland nourishment. The other remedies were ordered to be continued as before.

Tuesday afternoon, the 9th.—I have seen her several times since last evening. The aqueous discharge still continues, *twenty* napkins having been used: it is not at all streaked with blood, nor is there any appearance of lochial or mucous discharge. After sleep, the water comes away in slight gushes, but by draining at other times. The urine is still scanty and high-coloured; pulse 120, small and compressible; the breasts are quite flaccid—the child, therefore, is fed. Abdominal tenderness less; uterus better contracted, still reaching half way between the umbilicus and pubes.

Continue the remedies.

Wednesday.—Bowels have been naturally relieved. Urine still sparing in quantity and high in colour; pain of the abdomen less, and uterus not so tender to the touch. Pulse 100; debility excessive; little or no secretion of milk; "aqueous discharge" still very abundant; no lochia.

After this period, no distressing symptoms occurred, if the languor and extreme debility be excepted. The discharge of water continued for twelve days; for the last six it was evidently on the decline. The milk was never naturally nor healthily secreted; the child, in consequence, being brought up by hand.

Case II.—Mrs. T——, æt. 28, a woman of spare and delicate habit, and the mother of five children, was confined December 8, 1832, of a fine healthy boy, after a natural and quick labour. I visited her some hours after, and I found her suffering severely from after-pains. Pulse 120, sharp, yet compressible. Bladder rather distended, and uterus large.

Ordered half a grain of opium, and 3 grs. of calomel; directing a tablespoonful of castor oil early on the following morning.

December 9th.—I was requested to see her in the afternoon, in consequence of a discharge of water, which had exhausted and alarmed her. I found that she had lost between two and three pints of limpid inodour-

Five months ago she first discovered that during the flow of the catamenia there were discharges of water, which ceased when the period was over. Soon, however, they appeared in the in-

ous fluid, and it was still draining away. The uterus had descended behind the pubes; it was not large, but very tender. Pulse 130, small and feeble. There had been no lochial discharge, and she had passed once a large quantity of urine.

Ordered bran fomentations, Dover's powder, grs. vj. every six hours; and enjoined perfect quietude.

This patient went on just as in Case I, only that there was some secretion of milk, and the child was partly nursed. She was much debilitated, and the discharge did not cease for ten days.

Case III.—Mrs. P——, æt. 40, the wife of a labourer, has had several children; her labours good, with the exception of a temporary state of melancholia. She is of sallow complexion, and has ailed greatly during the present gestation. For the last three days she has been suffering; and owing to the increase of her pains, the presence of Mr. Cotton was requested. Her labour was natural, although severe; and there having been copious losses of blood in her preceding deliveries, Mr. Cotton bandaged the abdomen, and exhibited ʒss. of the ergot, previously to the expulsion of the placenta. Things went on comfortably until the fourth day, when Mr. Cotton was sent for. He found his patient had passed a bad night, and complained of severe pain in the hypogastric region, which was accompanied with the greatest pain on pressure; her pulse was small, 115; urine scanty and high-coloured; and there had been a discharge of transparent watery fluid, sufficient to soak from twelve to twenty napkins. Bowels confined.

Leeches and fomentations were ordered to the abdomen; calomel and opium to be given, with an ounce of castor oil, the following morning, if the bowels remained unacted upon.

5th day.—Very low, and in great distress of mind, saying she should never recover. Her abdomen was tympanitic, and tender to the touch; countenance pale, and bowels still unmoved; her pulse 120, small and weak; the discharge the same in quantity. At the suggestion of a relative, for whom Mr. Cotton attended, he introduced the catheter, and drew off eight ounces of high-coloured urine; but this effected no mitigation of the symptoms.

Cataplasms were ordered to the abdomen, and an enema with Ol. Terebinthinæ ʒjss. exhibited.

terval, and for the last eight or ten weeks she has never been free from watery discharge, excepting during the night. On no occasion has it been tinged with blood, and a careful examination shows that the secretion is limpid, very thin,

This had the effect of opening the bowels, which greatly relieved the tender and painful condition of the abdomen. The pulse also became fuller, 108.

Pulv. Ipecac. Comp. gr. x. were ordered at bed time.

On the sixth day she was much improved; her pulse soft, 100; the discharge was also lessened, soaking but ten napkins in the twenty-four hours. Light farinaceous nutriment was allowed, and saline medicine exhibited. On the eighth day, gradually getting better; eats with appetite, and the discharge has diminished, although she still uses from five to ten napkins a day; it continues limpid, and devoid of odour. Owing to Mr. Cotton leaving the country, he resigned the charge of the case; but he learned that the discharge became by degrees lessened, till at length what was left was little in quantity, and very thick in substance.

It is worthy of observation in this case, that the lochia were suppressed after the second day; and there was never any secretion of milk.

Case IV.—Mrs. T——, aged 32, of a spare habit, and delicate state of health, was delivered in the forenoon of August 2nd, of her first child, a fine healthy living girl, after a severe but natural labour of thirty hours' duration. The placenta was expelled by the uterine action in about half an hour. The first two days the lochial discharge was very profuse and rather offensive, with considerable disturbance of the system; the pulse from 100 to 120; the countenance pallid, and the lips almost exsanguineous. There were profuse perspirations; the abdomen was soft; and there was no pain produced by pressure; the secretion of urine was scanty, but passed without difficulty.

On the evening of the fourth day she complained of considerable enlargement of the abdomen, but without pain or tenderness; and on the following morning the nurse was hastily called to the bed-side, the patient supposing sudden hemorrhage had taken place; but on examination, it was found a large flow of colourless fluid had been discharged, to the amount of about a quart. This continued for eight days, in a quantity sufficient to saturate a dozen napkins in the twenty-four hours. The discharge does not dribble away, but escapes in a sudden flow, preceded by a sensation of itching, and a slight bearing down.

9th day.—The discharge is evidently abating, as not more than three napkins have been wetted with it.

entirely colourless, and free from odour. Nine or ten napkins, sometimes more, are soaked through in the twenty-four hours. Her aspect is unhealthy, her colour gone, and she is

Mr. Burn remarks in his letter to me, dated fourteen days after the labour, "that his patient is still greatly debilitated, and has never experienced any secretion of milk. The lochial discharge still continues in small quantity."

Mr. Bury, of Farnham, subsequently published a somewhat similar case to the foregoing, and as he has followed up the history by some exceedingly interesting observations, I shall give the communication entire. Mr. Bury remarks :—

"As my patient unfortunately died, an opportunity was afforded me of performing a *post mortem* examination, whereby the history is rendered more complete than either of those furnished by Dr. Ashwell, and whence, perhaps, some idea of the nature of this singular affection may be formed.

Case.—In the month of March, 1833, I attended Mrs. ——, æt. 29, the wife of a respectable tradesman in this town, in labour with her fourth child. She had from her youth lived in the enjoyment of what might, in her, be well termed rude health, having, however, a goitre since the period of childhood, which had now attained a large size, and had increased in magnitude with each gestation, though a certain diminution took place after delivery; but within the last few months she had experienced a considerable impairment of her general health, to which her looks testified. She had become highly "nervous," lost a good deal of flesh, and the wonted colour had forsaken her cheeks; yet her chief complaint was of pain, and a sensation of heat in the situation of the left ovary, attended with tenderness under pressure.

The birth of the child was quite natural and expeditious, although there was a slight retention of the placenta, owing to a minute adhesion to the left side of the uterus, which required to be broken through by the introduction of the hand into this cavity. The operation was borne remarkably well, and at the termination of the first twenty-four hours she was as comfortable as any woman could be.

When beginning to act upon the bowels, I found that they had been grievously neglected during pregnancy. The doses of purgative medicine necessary were therefore unusually great, and the quantities of scybala, and dark and diseased fæces, brought away by them were inordinately large. This foul state of the bowels, as might be expected, gave rise to a severe form of intestinal irritation, accompanied by a rapid

losing flesh; the pulse is quicker than natural, but the appetite has not much failed, nor are the bowels constipated; the urine is scanty, not high coloured, and there is increasing weakness.

pulse of 120, violent palpitation of the heart, pain of head, &c. In short, the symptoms of this disorder, so well delineated by Dr. Marshall Hall, were here conspicuous. The lochia were natural for the first three days, after which no discharge appeared; and at no period could milk be procured in the breasts despite of all our best exertions.

Under the steady and long-continued use of purgatives, the above state of the alvine functions was at length rectified, her strength at the same time demanding the support of mild and bland nourishment, and some of the less powerful diffusible stimuli. In the space of a month her recovery might be pronounced good, though the pain continued in the left iliac region, together with a frequent pulse and unmitigated palpitation.

In April, 1834, my services, as her accoucheur, were again commanded, and in every respect the labour was natural and easy, excepting that there was a greater discharge of coagulated blood than usual, both attendant on and after the expulsion of the placenta.

Her symptoms had been incessantly and carefully watched by me from the earlier months of pregnancy, and even before she was pregnant; during the whole of which time she had suffered severely from the pain in the left side of the abdomen, as well as from pulsation of the heart, and the pulse was scarcely ever under 120. In the early months there was a strong disposition in the bowels to become again loaded, as during her former period of breeding, and constipation for only one day was invariably productive of aggravated sufferings: consequently, when under my advice, she took repeated doses of castor oil and laxative electuary as often as they were required.

About the sixth month she went a few miles into the country, to the house of a relation; and whilst there, was bled by a respectable practitioner of a neighbouring town, for the relief of the pain in the left iliac fossa. Some alleviation followed the loss of blood for a few days, and she was advised to lose more if the pain recurred. Nearly a month afterwards, at her own request, I abstracted a few ounces of blood from her arm, as the pain was then as severe as ever. On account of the pallid aspect of the countenance and prolabia, I was adverse to depleting at all; and the escape of the above small quantity admonished me not to proceed. She fancied herself, however, somewhat easier after this scanty venesection.

A tendency to swelling had for some weeks been perceptible in the

The cervix uteri, indeed the whole organ as well as the vagina, is healthy, not enlarged, nor at all tender; but having the feel of parts constantly under discharge. Alum and catechu are taken internally, and the strong alum hip-bath is used every day, with a generous diet. These means improved the health, and as, during the night the discharge ceased, the patient was directed to keep her bed, and steadily to persevere with

lower extremities, and in the face also there were manifest some signs of general effusion; in fact, the *aspect* of the patient was *anasarcous*. And in this critical situation strong fears were naturally excited in my mind as to her recovery after parturition.

The first four days subsequent to her delivery passed over tolerably well, and on the fifth some milk was secreted in the mammæ. Up to this day the lochial discharge had been flowing constantly, though sparingly; but now it ceased, and there occurred the very remarkable phenomenon of successive copious discharges of a clear watery fluid from the uterine cavity, at intervals of about twelve hours. The quantity passed at each time was estimated at two pints, and its accumulation within the uterus occasioned much uneasiness, from distention previous to its expulsion, which was generally attended with pain. It was perfectly inoderous, and the napkins were no more stained than if they had been immersed in spring water. For the space of six days this singular evacuation lasted, and at the expiration of this time, when it terminated rather abruptly, my patient had both rapidly and greatly lost ground, and was further irremediably declining in strength. The milk remained in the breasts only one day. A fatal exhaustion was too plainly approaching; the pain in the left ilium and the unnatural action of the heart persisted, though with less violence, proportionate to the diminished powers of life. Delirium came on three days before her death, which concluded the scene on the seventeenth day after her confinement.

Sectio cadaveris.—All the viscera of the thorax and abdomen were healthy except the uterus and left ovary. The internal surface of the uterus presented three elevated masses, having both a *fungoid* and *melanotic* appearance, more resembling what has been designated the "cauliflower excrescence" than any other morbid or disorganized production to which I could compare them. The largest of these elevations was about equal in size to a penny piece; the two others were probably half as large. The surface was covered with a thin layer of dark half-coagulated blood; the adventitious substances were intimately

the remedies. At the expiration of a fortnight the catamenia returned, and during the four or five days they continued to flow, there was watery discharge only for two hours. The measures formerly adopted were then resumed, and there was no return of the serous secretion. When I last heard of this young lady, she had discontinued the use of medicine, and was attending to her usual duties.

At page 168 I have noticed a peculiar form of leucorrhœa,

adherent to the lining membrane, so that they were immoveable by the finger or handle of the scalpel.

In the left ovarium there was nearly half an ounce of pure pus, and the organ itself was surrounded by some adhesions formed by coagulable lymph.

It was unfortunately out of my power to bring away the morbid parts, which would have admitted of being shown in a drawing.

The remarks I have to offer on the foregoing case are very few, as I look upon those of Dr. Ashwell as peculiarly pertinent, and explanatory of the general nature of the subject. It were needless to relate the various means employed in the medical treatment, since the detail would be foreign to the object of my present letter. Suffice it say, that no remedy was omitted that held out the hope of relieving such formidable symptoms, and that nought but a short palliation of them was procured.

Like Dr. Ashwell, I had looked in vain for an account of this singular malady in the best obstetric authors within my reach; and yet I cannot but imagine that it has fallen under the observation of other practitioners. Now that it has been brought before the notice of the profession, it is very probable that instances of the kind will be remembered by others, and that in future it will be readily recognized.

From the actual state of parts found after death, I cannot agree with Dr. A. in regarding the aqueous discharge as the product of *disordered function* merely in the mucous membrance of the uterus. Whatever might have been the cause of it in the cases he has just favoured us with, I have no doubt in my own mind but that, in the case which forms the subject of this communication, it proceeded from those foreign growths discovered attached to that structure, as it is well known very profuse liquid secretions are very general concomitants of such analogous excrescences.

which may be regarded as hydrometra, only that the contents of the uterus, instead of being aqueous, are purulent. It may also be mentioned, that the excess of the liquor amnii and the false waters between the amnion and chorion, are both species of uterine dropsy, though they do not belong to this form of the malady.

The early *symptoms* are those of irritation, such as indigestion, nausea and vomiting, flatulence, pain, and costiveness. If the dropsical accumulation becomes considerable, there will be weight and painful tension about the pelvis, many of the symptoms of advanced pregnancy, and, according to Carus, slow fever.

It seems to occur principally in married women, and the accumulated fluid varies not only in different cases, but in the same case, at different periods of its progress. Thus, early in the *idiopathic* variety, it is generally serous or mucous, containing albumen, thick and inodorous; but, as the disease advances, as proved by examinations after death, the contained fluid is dark in colour, thicker and offensive.

In the *symptomatic* hydrometra, the dropsical secretion must of course be frequently mixed with blood or pus, and of various character as to viscidity and odour. Duges instances two fatal cases: in one, where death was caused by gangrene of the intestine; there had been uterine inflammation, the os was obliterated, and the uterus was merely a sac, filled with offensive and dark-coloured pus; in the other, the distension depended on a colourless aqueous fluid, associated with cancerous ulceration of the cervix—a case somewhat difficult to understand, both as to the quality of the dropsical secretion, and the condition of the os, which would scarcely be closed in progressive ulceration of the cervix. Authors differ greatly as to the quantity of fluid, the more reasonable assigning the moderate measures of pints and quarts, as the usual extent of the dropsy; while abroad, where wonders are more common, Blanchard, in one case, found 85 lbs. of an ichorous and oily fluid; Vesalius, 180 lbs.; and Bonet, who need not fear competition in the marvellous, relates an instance where the uterus, under this disease, was capable of holding a child six years old!

Menstruation is usually suppressed, although Munro states,

that amenorrhœa does not always exist. Nauche witnessed milk fever after the escape of the fluid, and it is also said, that there has often been sympathetic irritation of the mammæ.

The termination is generally by spontaneous evacuation, under some physical effort; but some authors relate, that patients thus affected become exhausted, and die from secondary fever; or that the uterus, incapable of further dilatation, in some weak or thinned portion of its structure, gives way, and thus the fluid, escaping into the abdominal cavity, may induce fatal peritonitis. But such results ought not to occur, since the disease is not difficult of diagnosis, and no mischief can be done by the careful introduction of a proper instrument into the uterine cavity for the evacuation of the fluid. I am inclined to think, that this affection has been more written about than seen. During the last ten years, neither amongst the in nor the numerous out patients of Guy's Hospital has there been a single case.

Causes.—A blow or fall, by which the abdomen has been injured, may produce uterine excitement, and especially affect the mucous lining of the organ, thus accounting for the disease; or the uterine dropsy may be the concomitant of a debilitated constitution or of a serous diathesis.

Pathology.—From what has been said as to the *varieties* of hydrometra, it will be inferred that the pathological conditions associated with it must be different. Thus in Dr. A. T. Thompson's case the uterus was perfectly healthy, with the exception of a sphacelated portion of the peritoneal covering of the fundus; while in Mr. Coley's, of Bridgnorth, the womb was entirely diseased: both these interesting narratives I shall annex, not only because they are authenticated by two well known practitioners, but because they furnish the best description of the commencement, progress, and termination of the malady which I have yet read.

However complicated, therefore, may be the diseased states of the womb, two conditions are essential to hydrometra: first, that there should be increased secretion from the lining membrane, or from some growth or ulceration of its surface; and, second, that there should be impermeability of the channel of the cervix.

Burns says, that one large hydatid filling the cavity of the organ, constitutes the malady; and Denman once saw an empty cyst of the form and size of the uterus, expelled after the discharge of the dropsical fluid it had contained. It is clear that the former celebrated writer has not assigned the true cause.

Treatment.—For this it is sufficient to refer to physometra, the evacuation of the fluid, the prevention of future accumulation, and the re-establishment of the health being the points of especial consequence.

Case 78.

RELATED BY DR. A. T. THOMPSON.

Mary Rae, æt. 65, mother of several children, was admitted into the infirmary in December, 1823; she appeared somewhat emaciated, and complained of uneasiness and pain, connected with a tumour in the abdomen, which she first perceived about six weeks prior to her admission, although from a sense of delicacy she had not mentioned it at the time. It was situated at the lower part of the abdominal cavity, rising, as it were, out of the pelvis, and occupying the iliac, hypogastric and umbilical regions. She appeared as large as if six months gone with child. An indistinct fluctuation was perceptible in the tumour, and the least pressure on it excited pain. It was suspected to be a diseased ovarium, but no examination was made *per vaginam*, nor could it be ascertained from the account the patient gave of its origin, whether it had first appeared on either side of the abdomen. The accompanying symptoms, however, denoted a greater derangement of the system than usually attends dropsy of the ovarium. These were want of appetite, considerable nausea, furred tongue, quick and feeble pulse, the bowels irregular, and the urine scanty and high-coloured. (In the beginning of March, 1824, she died, after amputation of the leg, which operation had been performed in consequence of a dry gangrene which had attacked the limb.)

Dissection.—The first object which presented itself, on the abdominal parietes being divided and turned aside, was a body, closely resembling the gravid uterus, occupying the whole of the pelvic cavity, and the greater part of the abdominal. Upon its anterior surface, and firmly adhering to it, was the urinary bladder, containing a small quantity of dark-coloured urine. On laying the flaps of the abdominal parietes toge-

ther, the stretched bladder was found to extend to within an inch of the umbilicus; so that it must have been perforated if the trocar had been used to evacuate the fluid during the life of the patient, under the supposition that the disease was ovarian dropsy. The tumour was immediately ascertained to be the uterus greatly enlarged, and filled with fluid; it was partially sphacelated on its peritoneal covering, at the upper portion of the fundus. With regard to the other viscera, the liver was much diminished in size, and adhered to the diaphragm throughout; the gall-bladder was large and turgid with deep-coloured bile; the stomach, colon, and other intestines with the omentum, were glued together in many places, and some were evidently in a state of sphacelation. This gangrenous appearance extended to the peritoneum in the hypochondriac region.

On removing the diseased uterus from the body, and making an incision into it, the quantity of fluid which it contained was found to measure eight quarts; it was of dark brown colour, and coagulated slightly when heated in a spoon over the flame of a candle. The existence of a large hyatid within the cyst was expected; but this opinion was incorrect, the sac being merely the uterus, in the cavity of which the fluid was contained. The internal surface of the organ was not more irregular nor more spongy than in its natural state; but none of the orifices could be found, for even the os uteri was, interiorly, as completely obliterated as if it had never existed; and although its situation could be traced in the vagina, yet even there it was very faintly marked. The ovaria were small and flaccid, but otherwise natural.

Case 79.

REPORTED BY J. M. COLEY, ESQ. BRIDGENORTH.

May 12th, 1834.—A female, æt. 36, mother of two children, the youngest nine years old; had been confined to bed for four months with a tumour in the region of the uterus, attended with obstinate constipation, hectic fever, and extreme emaciation. On examination, Mr. Coley found a painful irregular tumour in the hypogastrium, resembling that produced in the uterus in the sixth month of pregnancy, tender to the touch, hard and prominent on the left, and comparatively flattened and elastic on the right side of the abdomen. The pain she felt was of a shooting kind, constant, and varying in degree of intensity. The os uteri was sound, and a little dilated. The cervix was closed, and three-fourths of an inch long. The adjoining parts of

the distended uterus, within reach of the finger, were of a stony hardness, unequal on the surface, and exquisitely tender, especially on the left side.

The vagina also was tender, and during the last four months, afforded at intervals a dark-coloured, offensive, thick discharge, with portions of a membranous substance. Menstruation had ceased, and the breasts were enlarged and firm. From her own account, it appeared that a year and a half previously, gradual enlargement of the abdomen commenced, with suppression of the menses; that she then believed herself to be pregnant; and that at the end of seven or eight months from the commencement of this state, a sudden discharge of offensive fluid, with portions of a membranous substance, proceeded from, and completely reduced, the volume of the uterus. In March, Mr. Coley saw her again, and could discover no fluctuation in the uterus, from the vagina. At the latter end of March, there was a slight hemorrhage from the vagina, preceded by the detachment of a thick piece of abnormal membrane. About the middle of May, peritonitis occurred; this was followed by purpura, and on the 15th she died.

Dissection. May 11th.—Extreme emaciation. Thickening of the serous membranes, and adhesion of the omentum and abdominal peritoneum to the serous coat of the uterus, especially at that part which, during life, felt so hard and irregular. Evidences of surrounding peritonitis.

The fibrous portion or body of the uterus was so disorganized, that it was not thicker than an ox's bladder, and in some places it was altogether destroyed by an ulcerative process, which had commenced in the mucous membrane. On slight pressure being applied, the peritoneal coat at one spot, being free on both surfaces, gave way, and a thin, dark-coloured and offensive fluid, resembling that which proceeds from an ulcerated intestine, and containing portions of coagulable lymph, to the amount of three pints, escaped. The fibrous coat was quite destroyed at other parts, as well as the spot where the rupture took place; and the uterus, on being divided, collapsed like wash-leather, being generally reduced in thickness to the eighth of an inch, and having entirely lost its firmness and elasticity. In short, the principal support and figure of the organ were dependent on its indurated peritoneal coat, except at the inferior part, near the cervix.

The whole of the internal or mucous surface of the uterus was found in a state of *ramollissement*, or of that species of ulceration observed in the mucous coats of the intestines, in certain fatal diseases of these parts.

The cervix was obliterated, with the gelatinous secretion, peculiar to

the state of utero-gestation; and the walls of the uterus, adjacent to that part, were enlarged, and consolidated with a tuberculous mass, the principal portion of which was deposited in that part which rested against the rectum, and obstructed its passage. This morbid production consisted of an uniform white structure, and was free from those radiating bands, that grisly feel, and irregular surface, discoverable in scirrhous indurations.

ABSCESS IN THE WALLS OF THE UTERUS.

This is an exceedingly rare malady, and must not be confounded with abscess and ulceration resulting from carcinoma or the other malignant diseases of the organ. Instances where inflammation of the parenchyma or walls of the uterus terminate in the formation of abscess, although thus uncommon, are perhaps more frequently than has been supposed, the cause of prolonged discharges of purulent and sanguineous matter from the rectum or vagina. In such cases, the abscess communicates by an ulcerated aperture, either with the interior of the uterus, the colon, or the rectum. My former clinical clerk at Guy's Hospital, Dr. Frederick Bird, has recently published an interesting example of the malady; and as the opening in that case was into the bowel, directly the opposite of what occurred in my own, where the abscess burst into the cavity of the womb, I shall insert it in his own words.

Case 80.

For the opportunity of treating the following case, I am indebted to the kindness of my colleague Mr. Bransby Cooper, by whose recommendation the patient was placed under my care.

Miss ——, æt. 19, is of strumous constitution, and pale. Menstruation has been irregular for the last five or six months, and there has been much leucorrhœa. The bowels are constipated sometimes, but more frequently relaxed, and for many days together, there has been no alvine relief, the necessity for it being apparently superseded

by the passage of feculent matter per vaginam. On inquiry into the earlier symptoms, I found that, deep in the pelvis, and especially when relieving the bowels, a month before, she had complained of severe pain. At first, this did not persist after the motion; but shortly afterwards she suffered constantly from stabbing, lancinating pain in the same situation. A few days before I saw her, she was suddenly seized with discharge from the vagina, the singular character and quantity of which induced them to ask Mr. Bransby Cooper's, and subsequently my advice. On going into the chamber, I was shown a pint and a half of the discharge, and I had no difficulty, from its smell and appearance, in deciding that it was feculent. In the first instance it had come away suddenly and by gush, and frequently, in my further attendance, I was shown similar, and even larger quantities; sometimes more, sometimes less fluid, occasionally purulent, but invariably feculent, both in odour and appearance.

I was permitted to examine the uterus per vaginam only once during my attendance; the neuralgic suffering induced by the examination not subsiding for many days. The cervix was tender to the touch, but natural in form, size, and feel. The body of the uterus was large, but not indurated; and when examined by the rectum, it was found to be free from all hardness, and the bowel itself quite sound. Iron, alum injections, and the alum hip-bath, and good diet, sea-air and bathing were fully tried, but only with temporary benefit, her strength declined, and in a few months from my first seeing her, she died. Unfortunately the body was not examined.

Case 81.

CASE OF ABSCESS IN THE WALLS OF THE UTERUS, COMMUNICATING WITH THE RECTUM.

RELATED BY DR. FREDERIC BIRD.

Mrs. G——, aged 37, had, previously to the last three years, enjoyed general good health, menstruating regularly. At this date she married, and was soon after attacked with acute, deep-seated pain in the hypogastric region, radiating to all parts of the pelvis, and increased by micturition and defecation. These symptoms were associated with general constitutional disturbance, and, in fact, with all the ordinary

symptoms of inflammation affecting the uterus. She passed through the usual forms of treatment, and although the more urgent symptoms were mitigated, yet she continued to suffer during the three following months from occasional pain in the region of the uterus, always produced by attempts at expelling the contents of the bladder or rectum, the discharge of fæces being also sometimes effected with great difficulty. An internal examination made at this period detected the uterus lower in the vagina than usual; there existed marked enlargement of that organ, the chief increase in size being found to occupy the posterior wall; the os and cervix uteri were painful to the touch, and tumid.

Shortly after the vaginal examination had been made, about half an ounce of pus suddenly escaped from the rectum, and she experienced immediate relief from her former symptoms, She now became the subject of diarrhœa, generally passing from six to eight evacuations daily, each of which contained more or less purulent matter; pain in micturition was no longer felt, but she invariably suffered greatly when passing motions. The diarrhœa could not be arrested by any of the remedies employed; her general health, nevertheless, slowly improved, and she went into the country, where she remained during the succeeding two years, little or no variation in her symptoms having occurred. The diarrhœa, and with it the discharge of pus from the rectum, continued; on some occasions more than a pint of pus has been thus evacuated during twenty-four hours, and she observed, that whenever the pus failed to be discharged so freely as usual, the local pain became aggravated. During the whole of this period menstruation had been very irregular, generally occurring at intervals of eight or nine days, accompanied with much lumbar pain and passage of coagula.

After the lapse of the time mentioned, she again applied to Dr. Bird, suffering from nearly all her former symptoms, and, in addition to them, profuse menorrhagia; the pain in the region of the uterus was extremely acute, increased by the passage of the fæces, and by pressure on the lower part of the abdomen, to which became added a neuralgic condition of the genital organs, the slightest pressure upon which produced extreme suffering; so great was the pain thus excited, that she was accustomed to employ a mechanical contrivance to prevent the bedclothes from touching the pubes. A vaginal examination was, with much difficulty and pain, again made; the uterus was found to be nearly in the same state as before, excepting that it had become quite immoveable, appearing as if impacted in the pelvis, just as may be observed in some forms of malignant disease affecting that organ. No benefit resulted from medical treatment, occasional relief only being

afforded by large doses of opium and the external application of belladona.

She continued to suffer from frequent discharges of blood from the vagina, and from all her former symptoms, until the lapse of six weeks, when she sank exhausted by the extreme suffering produced by her disease.

A post-mortem examination was made twenty-four hours after death. On laying open the abdomen, the omentum, small intestines, and all the pelvic viscera, were found agglutinated together by peritoneal adhesions of old date. On raising the uterus, it was seen to be firmly attached by its upper and posterior portion to the rectum; it presented an irregular form, having the fundus enlarged to about thrice its natural size. A longitudinal section showed this enlargement to have been produced by an abscess seated in the substance of the wall of the fundus uteri, the cavity of which contained about an ounce of dark thick pus; the walls of the abscess varied in thickness from one to three-quarters of an inch, the thinnest portion being nearest to the cavity of the uterus. A communication by means of a short sinus could be traced passing from the cavity of the abscess to the adherent portion of the rectum, and opening into that intestine by an aperture sufficiently large to admit of the passage of a thick probe, and evidently of old formation. No communication existed between the uterine cavity and that of the abscess. The os and cervix presented no evidence of malignant disease. The Fallopian tubes and ovaries were adherent to the uterus, and could with difficulty be distinguished. The uterus had never been impregnated.

OF UTERINE MOLES.

The term mole is by no means accurately defined. All fleshy and shapeless masses, irregularly passing from the uterus, are thus designated; for, however authors may differ as to their origin, they seem at least to have agreed in bestowing upon them a name sufficiently comprehensive, though devoid of precision. Moles may originate from the ovum, whichahas been early blighted, or which has been only imperfectly developed; from a portion of retained placenta; from the firm clots of dysmenorrhœa; from a polypus spontaneously detached and shut up in the uterine cavity; from fibrous portions of

coagulated blood; or from the hardened mucus of the uterus itself.

Thus there are two species of uterine moles:—

First. Those which are the product of conception.

Second. Those which are independent of pregnancy.

It is true, the majority of such cases may be traced to conception as their first cause; but it is also certain that there are fleshy and fibrous moles and hydatids, which do not thus originate.

Moles resulting from vicious and imperfectly developed ova, differ much from each other. Sometimes, although partially organized, they are so shapeless, as not to resemble any animal form. I have seen two such specimens, one the size of the single fist, the other as large as both fists doubled, of rounded form, and with an external coating like skin. In neither was there any visible development of head or extremities, but in one, there was the rudiment of an imperfect placenta and something like a navel-string. We have several examples in Guy's Hospital Museum of mole, which has been termed "the false germ," where the embryo is absent, while the membranes are somewhat fectly formed.

All pathologists allow the existence of those moles, however differently they may explain the circumstance of their formation, where the embryo having died early, the ovum being retained, has increased in size and solidity, not by a process of growth, as in natural pregnancy, nor even as in a tumour or polypus, but by the effusion of coagulable lymph from inflammation of the lining membrane. This forms successive layers over the surface of the dead ovum, giving it eventually a great degree of consolidation. Some of these masses, when cut into, have no cavity; but the chorion and amnion are demonstrable, although the enveloping lymph may be one or two inches in thickness. It seems somewhat surprising, that the coverings of the fœtus, should be carefully constructed when there is no embryo. But the fact is so. Lately, I was present at the expulsion, after much previous flooding, of a firm, fleshy mass, equalling in size a large orange. The small central cavity was lined by a smooth and perfectly formed

amnion, with a little fluid; but although I examined the specimen under water most carefully, I could detect no appearance either of an embryo or umbilical cord. If, in such instances, the embryo has never been formed, they may be regarded as genuine examples of false conception. Some physiologists, however, have supposed, that in these cases, the tender germ may have been accidentally and early deprived of life, and subsequently dissolved in the liquor amnii. However explained, the absence of the embryo is thus certified. Some years since, in consultation with Dr. Arnould, then practising at Peckham, I met with what might be fairly regarded as a mole, in the same uterus from which had just been removed a living and healthy infant, by the operation of turning. The parts of this second fœtus must have been originally imperfectly formed. It had died early, and although there was some fetid and black liquor amnii, yet the membranes were so thickened by the effusion of blood and the deposition of lymph, and the mass was altogether so consolidated, as nearly to have lost all definite form.

Moles originating from conception, are longer retained than any other species, and it is a natural conclusion, where a considerable time elapses prior to their expulsion, that they may, by pressure and the deposit of successive layers of coagulable lymph, degenerate into the more solid, fleshy mole. Thus, the conditions of the formation of the diseased bodies following conception, are the death of the embryo, its retention in the uterus, its transformation by pressure, and the partial organization of the effused blood and lymph into an almost shapeless and dense mass.

Second.—*Moles which do not owe their existence to conception.*

These are, as already stated, few in number when compared with the first species. I have twice seen fibrous clots, the product of dysmenorrhœa, growing into mole, and not expelled till they had attained a considerable size, and then only with great pain and serious hemorrhage. Some years ago, I was asked by Dr. Hodgkin to visit a lady a few miles from town, who was thought to have polypus. On examination, a fleshy and tolerably firm body could be touched, just within the cavity of the cervix uteri. There had been considerable bleed-

ing, and the anemia was distressing. Ergot was given, and in few days the mass was protruded through the os. A ligature was placed around it, which in twelve hours cut through, bringing away the tumour, but not without considerable hemorrhage. Ergot was again exhibited, forty minims of the tincture every quarter of an hour, and after the sixth dose, a fibrous mass, as large as a turkey's egg, of firmly coagulated, and partially organized blood, was expelled. In six or seven weeks, another mass, only smaller, was got rid off in the same way. This lady had long suffered from dysmenorrhœa, and had frequently passed firm concrete clots of lymph and blood. There had been no sexual intercourse for eighteen months prior to this occurrence. She afterwards died; dropsy of the chest and abdomen having supervened.

VESICULAR MOLES OR HYDATIDS OF THE UTERUS.

With regard to the other foreign productions occasionally found in the cavity of the womb, so likewise of hydatids, extraordinary and discordant opinions have been promulgated; and it is difficult, if not impossible, to believe many of the wonderful narrations about "false gatherings or conceptions" bequeathed to us by the older writers.

Uterine hydatids are generally pellucid vesicles, varying in size from a small currant to a large goosberry, containing a limpid fluid, capable of being partially coagulated by heat and the mineral acids, and, so far as my observation has extended, without odour, except when mixed with decomposed blood. They grow, not as in other cavities, single and without any connection, but they are united together by peduncles, much in the same way as grapes are to their stalks; only that hydatids are generally clustered about a more solid and large central part.

Hydatids, where they are not the product of conception, form in the open cavity of the uterus. This circumstance, and the slight closure of the os, doubtless favour the disposition to their early expulsion; for although there are marvellous stories

told about their accumulating for five or six years, and to a vast amount, still it is rare that they go on distending the womb for more than four, five, or six months. Their quantity is, however, various, and while I have known not more than eight ounces of these vesicles to escape, yet in a case I saw with Mr. Salmon of Broad Street, there was enough to fill two wash-hand basins. Where there are few vesicles, the quantity of fluid in which they float is comparatively large; and where they grow from the ovum, the decidua incloses the whole of the diseased mass. To this membrane,—and when not resulting from conception,—to an opaque membrane similar to it, and connected with the uterine vessels, these hydatids seem to owe their nutrition.

The supposition that these uterine vessels are acephalocysts, and have an independent existence, as maintained by Linnæus and Percy, is now entirely abandoned.

The great danger arises at the time of their coming away; for, as they may be only partially expelled, the hemorrhage may be repeated and kept up till their final and complete evacuation. I have known a patient alarmingly exhausted by the flooding attendant on these expulsions by instalment.

Pathology.—These formations are placed in the second species of moles, because I have seen at least one example where they were the result of diseased action of the uterine lining membrane, independently of sexual intercourse. The patient was the widow of a surgeon, and of undoubted reputation. Her husband had been dead two years and a half when the abdomen began to enlarge. She had nausea, but no vomiting, from which she had always suffered in her pregnancies. The increase of size was very rapid, and at three months and a half from the first stoppage of menstruation, the bulk of the uterus had reached that of a seventh month's pregnancy. The abdominal tumour was flaccid, and the os closed. At the fourth month, after more than ordinary exertion, there was a gush of blood from the vagina, followed by the immediate escape of a considerable quantity of vesicular hydatids.

The recovery was good. Iron was afterwards given, she was sent to the sea-side, and now, at the expiration of several years, there has been no return of the malady.

Mr. Douglas Fox, surgeon to the Derbyshire Infirmary, gave me the particulars of a case where a large mass of vesicular hydatids was expelled from the uterus of a maiden lady, where the hymen was unruptured, and of whose chastity there could not be a suspicion.

Sir Charles Clarke and Dr. Blundell unite in opinion, that conception is not a necessary condition; while Madame Boivin, Capuron, Duges, and even our own countrymen Denman aud Burns, have arrived at an opposite conclusion. Dr. Evory Kennedy says, that "hydatids may occur in virgins;" while Dr. Montgomery believes, "that they invariably result from impregnation." It were to be wished that every disputed physiological point admitted, as this does, of a settlement by the observation of facts.

Women are liable to a repetition of this vesicular formation, where it has resulted from conception. The few exceptions, where the hydatids have formed independently of pregnancy, forbid at present any decided opinion as to the probability of their recurrence.

It cannot, therefore, be concluded, after what has been adduced, that the vesicular hydatids necessarily compromise female character. Nor need any impropriety of conduct be imputed to a widow, where a blighted conception, or these vesicles, shall be expelled after the death of her husband. Conception may have occurred during his lifetime, the ovum may have died, but not being expelled, this morbid process is set up, and no one can say how many months may elapse prior to the evacuation.

I have already alluded to inflammation and the effusion of coagulable lymph, as explanatory of the organization of the more solid moles; while the vesicular hydatid, when it results from pregnancy, is more plausibly attributed to disease of the flocculi of the chorion, which, on close inspection, will be found to present the commencement of these vesicular growths. Even in the same mass, the cysts may be observed in progress; some just beginning, others being more distinct and transparent; while those which are fully formed contain fluid, and may be regarded as perfect hydatids.

Dr. Montgomery has a preparation showing "the ovum completely covered by the decidua reflexa; but when that was turned back, the hydatids were seen growing from the villous surface of the chorion. There was another peculiarity in their mode of attachment and growth, worthy of notice. At first one or two sprung from a single, fine, thread-like stalk, then from these one or two more, and so on, until at length a large bunch of hydatids was formed, hanging from the chorion by the original delicate single stalk." Now, while it may be granted that in the greater number of examples these productions originate indirectly from pregnancy, I am convinced such an origin is not universal. The cases already mentioned prove this; at least, so far as I can judge, they establish the fact, that vesicles so like the hydatids of the chorion as not to be distinguished from them by the eye, do very rarely grow from the diseased lining membrane of the uteri of unmarried women and virgins.

The true hydatid (the acephalocyst or cysticercus) is found also in the uterus. But in its seat and mode of generation, it differs from the vesicular hydatid. The latter I have never known produced in the substance of the womb, the decidua and lining membrane constituting its nidus or base; but the true hydatid may form in the parenchyma or walls of the uterus, in the same way that it grows in the liver or muscular tissue of other parts of the body. Some years since Mr. Wilton of Brighton (vide an excellent lecture by Dr. Ingleby, on Hydatids of the Womb, Lancet, February 1, 1840), detailed a very interesting case of hydatid formation. The patient died, and when the body was examined, a highly varicose state of the veins was seen at the posterior surface of the fundus, beneath the peritoneum, constituting a rounded tumour. In the diseased part there was an opening, which contained a coagulum. This opening was proved to be the immediate cause of death, by an effusion of blood in the abdomen, to the extent of several quarts. A mass of hydatids protruded into the cavity of the womb, portions of the mass being firmly adherent to it. In the vicinity of this mass the lining membrane had degenerated in character, and was covered by patches of lymph. On the removal of the adherent hydatids it was found that the lining

membrane was partly wanting, and that masses of hydatids were imbedded in the structure of the organ. Towards the fundus they existed in nests of various sizes, and produced the rounded tumour at the posterior surface of the fundus, which has already been described." These, I presume, were true hydatid formations, very different from the vesicles generated in the chorion, as the result of a blighted conception.

Dr. Andrews (vide Glasgow Medical Journal, No. 4.) published several cases of hydatids simulating pregnancy. Two of them were in married women, the other two in girls of the ages of sixteen and seventeen years. In one, menstruation had never occurred, and the hymen was entire. The advocate of pregnancy, as the sole origin of vesicular hydatids, will of course think these were examples of the true or acephalocyst form of the disease; and without very accurate investigation, it would be difficult to determine in which class they ought to be placed.

I have once or twice examined slightly pellucid and bladder-like substances, which have passed during and after dysmenorrhœa, but they could not have been mistaken for hydatids.

It is quite possible, during hydatid pregnancy, if any considerable portion of the lining membrane is unoccupied, that it may be largely supplied with blood, and may thus furnish watery discharge, independently of the breaking of the cysts, or of their subsequent escape. This is a practical fact of some importance, as tending to explain the occasional gushes of watery secretion, not succeeded either by the partial or entire emptying of the womb.

For the following particulars I am indebted to Dr. Ingleby. The case occurred in the practice of Mr. Chavasse.—"A lady was attacked about the fifth month of her pregnancy by hemorrhage and pain, accompanied by the expulsion of a mass of hydatids, probably three or four ounces. The hemorrhage ceased for a short time, but returned at intervals for upwards of a year, and was attended occasionally by severe pain, and the expulsion of a single hydatid resembling a hot-house grape. The symptoms became more alarming, the hemorrhage resisting every mode of treatment which could be devised. A state of anemia ultimately ensued, and, on the conviction that

the patient's life depended on the removal of the hemorrhage, it was determined to use a stimulating injection. The third injection was impregnated with oxide of iron, and, after using it several times, its strength was increased by the addition of one drop of the tinctura ferri sesquichloridi to each ounce of the oxide injection, and gradually increasing the quantity of the tincture to four drops. Its employment was followed by so much pain and tenderness, as not only to require a suspension of the injection, but also to demand a mild antiphlogistic treatment. At one time severe inflammation supervened, and the patient seemed to be sinking under irritative fever, but after this no further discharge took place; but, at length, under the tonic plan of treatment, she perfectly recovered, and the uterus has since resumed its natural functions. In this case the removal of the disease is clearly referrible to the stimulating action of the iron on the lining membrane. The treatment of acephalocysts in the uterus by iron has much to recommend it; that metal, indeed, has been supposed to exert a specific action in such cases. However this may be, the principle is quite inapplicable to the hydatid formations of pregnancy, and injections of iron can only act like stimulating injections generally."

Symptoms and Diagnosis.—The symptoms closely resemble the first signs of pregnancy, and the diagnosis is rarely attempted until the time approaches for the earlier indications to be confirmed by the movements of the fœtus. About this period, or sooner, doubt generally arises. The catamenia have disappeared, and the abdomen has become enlarged; the uterine tumour may have been distinctly felt, and, together with the increased volume of the breasts, may have settled the point, that pregnancy really exists. But there is no quickening, and the patient is often disproportionately large. Thus, if half the term only has passed, the bulk may equal that of a pregnancy nearly at its close, and the greater part of this vast increase may have occurred within a few weeks. If a medical opinion is now asked, additional reasons for suspicion will soon be discovered. The stethoscope will fail to detect the pulsations of the fœtal heart, or even the placentary murmur; there will be no balancing the uterine contents by the "ballottement;" and the womb, although greatly distended, will be soft and doughy in

feel, exceedingly unlike the firm structure of the impregnated organ.

There are, too, occasionally other symptoms leading to the conclusion that there is disease. Severe pain, is sometimes the attendant of this rapid uterine growth (vide case 83), and pressure of the tumour often produces uneasiness. The pulse is quick, and there is a degree of general illness, rare in natural gestation. Some authors affirm, that there is a serous or sanguineous vaginal discharge; and this may be true, if it be limited to a few weeks prior to the expulsion of the hydatid masses. There are cases where the health is but little disturbed, either constitutionally or from the enlarging uterus, beyond what is common in healthy pregnancy. By the vaginal examination the diagnosis will not be much assisted (except in the absence of the "ballottement"), as the cervix is diminished in length, is much broader and softer, and the body of the womb is felt to be greatly enlarged.

Thus, while it may not be easy to say what the uterine contents really are, it will not be difficult to determine that natural pregnancy does not exist. Physometra and hydrometra are such uncommon maladies (vide their histories), that they will hardly perplex the practitioner. In the former, so far as that the accumulation of air shall equal the bulk of the pregnant uterus in the fourth month, I am hardly a believer; but if such a case should ever occur, its less weight and its resonant elasticity will serve as guides.

From hydrometra, hydatid accumulation may be readily distinguished by the absence of distinct fluctuation, as it is next to impossible to suppose, that the uterus shall contain pints of fluid without fluctuation. In some instances, one or two of the vesicles escape, and if recognized, the disease is of course at once understood.

Prognosis.—This cannot always be favourable. If the patient be young and otherwise healthy; if the disease has not lasted long; if it be a first occurrence; and if the hemorrhage has been moderate—a satisfactory opinion may be safely given. Where, however, it occurs later, perhaps between forty and fifty, or at the period of catamenial decline; where there have been frequent pregnancies and exhausting sucklings; abortions,

and a series of events unfavourable to health, a much more guarded prognosis is necessary. In such instances (vide cases 82 and 83), the decay of constitutional strength, dropsy and phthisis, or possibly organic and malignant uterine disease, may be the results.

Treatment.—We may say of uterine hydatids, as of placentar presentations, that their accurate diagnosis lessens, but does not remove anxiety. In hydatids, there may be no present hemorrhage and therefore no necessity for interference; but it is impossible to say when, or to what degree bleeding may take place. There are instances where the expulsive contractions come on at once, and without any previous hemorrhage; but it is far more common that bleeding occurs several, perhaps many times before the uterus is completely emptied. The difficulty of the treatment consists in knowing precisely when and to what extent we ought to aid these expulsive efforts. To do so prematurely and unnecessarily, especially when the neck of the uterus is but slightly developed, would be to incur the almost certain dangers of contusion and inflammation. To allow the bleeding to exhaust the patient, without any active measures to produce expulsion, would expose the practitioner to severe censure. It is rare for the uterus, if excited to moderately vigorous contraction, to become again entirely quiescent; and if, when these efforts are perceived, two or three doses of ergot are exhibited, and a bandage applied round the abdomen, we shall not often be disappointed in obtaining complete evacuation.

If, however, such should be the case, and the small degree of development of the cervix forbids the introduction of the hand, the vagina should be plugged with soft tow, cold should be applied over the vulva and thighs, and the prompt treatment so essential in large uterine bleedings, should be at once adopted. There are probably few cases of large and dangerous bleedings, where the hand, if necessary, may not gradually and gently, be safely introduced into the uterine cavity for the express purpose of bringing away the hydatids. It is scarcely necessary to say, that the same care and watchfulness are necessary after such events, as after flooding labour.

Nor can it be too strongly recommended, that no risk of a fresh pregnancy be incurred for some time after the health is fully established.

Case 82.

ENLARGEMENT OF THE UTERUS FROM VESICULAR HYDATIDS.

On June 25th, 1831, I was requested to see a lady who had been occasionally under the care of Mr. Salmon of Broad Street.

Mrs. —— is nearly 50, and has had ten children, but has not been pregnant for the last eight years. Till February, menstruation was regular, and its subsequent disappearance was attributed to conception. In April and May she had nausea and sickness, and was incommoded by several of the early signs of gestation. Soon afterwards, in the last week of May, there was slight hemorrhage, and she has never since been free from uterine bleeding for more than twenty-four hours. Her general health is greatly impaired; she is emaciated, the pulse ranges from 120 to 140, and she is very irritable and anxious.

On examining the abdomen externally, there may be felt a well defined, round, and central tumour, reaching from the pubis to considerably above the umbilicus; but it is soft and fluctuating, exceedingly unlike the firm consistence of healthy pregnancy. The umbilicus is prominent, and the abdominal integuments are only slightly tense. Internally the os uteri is supple and open, admitting easily the first phalanx of the forefinger; the cervix is developed, and has lost nearly two-thirds of its length, reminding one of the seventh month of gestation. The body of the uterus is balloon-shaped, and easily raised by pressure on the cervix. I cannot, however, displace the uterine contents by pressure, either on the abdomen or cervix; nor can I discover anything like a child. There is not any appreciable disease in the abdominal viscera, and the parietes of the uterus seem healthy. Thus the disproportionate bulk, the bleedings, the open state of the os, the softness of the uterine tumour, and the entire absence of the ballottement and of the fœtal movements, confirm the impression, that although impregnation may have occurred, its results are destroyed by hydatid growths.

For ten or twelve days I was anxious about the patient, as the hemorrhages were frequent, sudden, and large; and having administered the ergot, as I found, without advantage, I had determined, within the next four hours, to empty the uterus. Just, however, as I was leaving the house, pains came on, and in the course of half an hour two wash-hand basins full of uterine vesicles were expelled. Nothing of moment occurred afterwards, excepting that the recovery was slow and incomplete; and when I saw her a few months subsequently, she was still

emaciated, very thin, had cough and night sweats. In a short time confirmed phthisis set in, and within the year she died.

I was informed by Mr. Street of Norwood, who examined the body after death; that the uterus was large and very soft, and that its lining membrane, contiguous to the mouth and round the lower part of the cavity, was ulcerated.

Case 83.

REPORTED BY MR. GEORGE STANGER, SURGEON AT NOTTINGHAM.

Mrs. ——, æt. 40, the mother of several children, came to the Dispensary, complaining of severe pain in the abdomen. On examining, I found a large tumour, centrally placed but soft, of the size of a seventh month's pregnancy, and of a globular rather than longitudinal form. The catamenia had disappeared for three months. Neither bleeding nor purging relieved the pain; but in a few days a large hemorrhage from the uterus occurred, which, although attended by extreme prostration, mitigated the severity of the pain. On examination, I found the os patulous, and it was evident the uterus was filled with something tolerably hard, a child, or fleshy mole or hydatids. Brandy was freely given, and ergot was prescribed; but before the latter could be administered, she was seized with violent labour-pains, and expelled nearly a bucket full of uterine hydatids, connected with, and apparently growing from a placentar-like mass. Her convalescence was protracted.

Mr. Stanger informs me, that within two months the abdomen began again to enlarge, and the same severe pains returned, her health was failing rapidly, and he feared she would sink.

I have selected these out of a number of cases of the disease, as although the course of symptoms is well pourtrayed, the the result having been fatal in both, is calculated in other examples of the malady to secure the watchful care of the practitioner.

OSSEOUS AND CALCAREOUS TUMOURS OF THE CAVITY OF THE UTERUS.

Already, at page 288, I have alluded to the increased induration of the fibrous tumours of the uterus, even to the extent of

cartilaginous, osseous, or calcareous hardness. Nor is there any doubt, that the *womb stones* described by the older pathologists, were originally fibrous or hard tumours, in which this transformation had occurred. To this degeneration fibrous growths are especially prone; and it has been formerly pointed out, that one of the most satisfactory results of any treatment which they may require, is the continuance of their natural low degree of vitality. In this quiescent state, they may continue during the remainder of life, producing, if any, only slight mechanical inconvenience. Or if, on being originally located in the uterine parietes, they shall, by pressure from their increased hardness, ulcerate through the mucous lining into the cavity of the uterus itself, such an occurrence, especially at an advanced period of life, will scarcely produce any aggravated sufferings. We have in Guy's Museum several specimens of these calcareous tumours, the largest of which was removed from the uterus of an aged subject brought for dissection. The history, had it been known, would probably have confirmed the truth of the preceding remarks. I have occasionally under my care an elderly lady, in whose uterus I feel sure there is one of these womb stones; and she states, that when she first became aware of the central and hard swelling, she frequently suffered from pains nearly as expulsive as those of labour. Shortly, however, menstruation ceased, and from that time, now nearly twenty years, there has been no return of the uterine contractions.

Professor Simpson of Edinburgh, to the learning and value of whose writings I am glad to pay the respect they deserve, says, "that he has had repeated opportunities of remarking calcareous degeneration equally in the very smallest fibrous tumours, and in those of larger size."

In the following opinion I fully concur:—"Fibrous tumours may," the Professor says, "in some rare cases, undergo another or cellular form of transformation, and in this way become diminished both in density and volume. It is only by this kind of cellular atrophy that we can explain the circumstance of the disappearance to a greater or less degree of uterine tumours that appeared to have all the characters of fibrous tumour. We have lately had an opportunity of watching one such case, and there are a few others on record. The appearances after death

in some instances of this kind, would make a great addition to our present knowledge."

It is clear, that little need be said about treatment. What has already been advanced as to soothing the irritation, existing either in the fibrous tumours themselves, or in surrounding parts, is applicable here; nor would any practitioner hesitate to aid any efforts for the expulsion of such bodies from the uterine cavity.

PHLEBOLITES

Are bodies generally of small size, and varying in structure and density from a mass of fibrin to one of calcareous hardness, found in the uterine and pelvic veins. Lately I was present at an inspection where several of these productions, of varying consistency were discovered. There are not, to my knowledge, any symptoms which would, during the life of the individual, indicate their existence.

ATROPHY AND HYPERTROPHY OF THE UTERUS.

The former of these states is not uncommon in very aged women, and in these it can scarcely be considered a disease. I am inclined to think, that atrophy of the uterus and ovaries is more common in the early and middle periods of life, than is supposed; but as death under such circumstances, is happily of rare occurrence, it is difficult to bring pathological evidence to support the opinion. Frequent sterility, however, lends some probability to its correctness; and it could scarcely do harm if iron, and the various means for the cure of chlorosis, were earlier and more vigorously employed, in cases where, from the generally attenuated condition of the patient, the reproductive organs might, probably with truth, be thought to participate in the anemia. It is almost certain, that congestion of the uterus, which is often permitted to continue for years without curative local depletion, lays the foundation of sterility and of slowly advancing atrophy, both of the uterus and ovaries.

Hypertrophy of the uterus is more common than atrophy; and

it is well known how frequently in the neighbourhood of polypi, and submucous and fibrous tumours, the uterine walls become very much thickened, and their blood-vessels proportionately increased. Such diseased conditions may in many cases be unknown; but the probability of their existence shows how necessary it is to examine, not once only, but repeatedly, and not by the vagina alone, but also by the rectum. I have seen instances of a generally hypertrophied womb independently of organic disease; but such are rare, and I am now attending the wife of a medical friend, where many of the symptoms of a large uterus exist, without indication of tumour. There is much more to be effected by treatment in hypertrophy than in confirmed atrophy.

CHAPTER VI.

DISPLACEMENTS OF THE UTERUS.

This is a most extensive subject, and in treating it, I shall endeavour to be as practical as possible. The situation of the uterus, and its method of support, are admirably adapted to the functions it has to perform. But while this is fully conceded, it must also be allowed, that these very circumstances render it peculiarly liable to displacement. Its ligaments are not strong, and the broad expansions of peritoneum fixing it to the sides of the pelvis, are of necessity, elastic. The bladder may exceed its natural fulness, and thus push backwards the uterus, to which it is so intimately connected; while the rectum, when excessively loaded, may seriously derange its central position. The vagina, an organ of such diversified function, may become relaxed and capacious, and thus permit a trivial descent or a complete protrusion beyond the external organs. Add to these facts, the necessary alteration of position during pregnancy, and then, independently of tumours and diseased enlargements of the abdominal and pelvic viscera, we have sufficient proof, that of all the organs of the body, the uterus must be most exposed to displacement.

Being more common than any other, I shall commence with those deviations in which the uterus descends or sinks lower than natural, towards the outlet of the pelvis.

Relaxation, *prolapsus*, and *procidentia* are the three degrees of this, the most frequent of all the uterine displacements.

Relaxation implies, that the uterus has lost its central projecting position in the upper part of the vagina, and has descended sufficiently far to obtain a bearing on the perineum; without, however, any material shortening of this canal, or any marked alteration in the uterine axis.

Prolapsus signifies, that the uterus has sunk nearly, or quite down to the os externum. Under this state, the vagina is con-

siderably everted, and the womb, losing the axis of the brim, which is downwards and backwards, assumes the axis of the outlet or of the vagina, which is downwards and forwards.

Procidentia implies complete protrusion beyond the vulva. The uterus forms a tumour, often very large, hanging out between the thighs; and the vagina turned inside out, constitutes the external covering. In the sac thus formed, especially if of long standing and large, there is contained the bladder, rectum, and some portion of the small intestines, the mesentery being stretched, and the omentum occupying any vacant space.

History and Causes.—There are few diseases about which medical writers of the present day are more perfectly agreed. The ancients, on the contrary, doubted the possibility of the uterus being entirely protruded, giving, as their reason, the strong support afforded by its ligaments. Now, from the anatomy of the parts, we scarcely attribute any retaining or holding power to the uterine ligaments. By experiments, too, on the dead body, Professor Burns found, that more resistance was afforded to procidentia by the connection of the uterus and vagina to the neighbouring parts, than by the agency of the ligaments; for although he cut the ligaments, he could not, without much force, make the uterus protrude. At this result I have also arrived, by a repetition of the same practice. A debility and relaxation of the levator ani and perineal muscles, but particularly an extension and slackness of the pelvic fascia, in its connection with the uterus and vagina, are in a great measure essential to the production of the prolapsus.

Of all the chronic female diseases, displacement is the most common, often existing long in slight degree, without being suspected; while even serious prolapse and decided procidentia, have within my own knowledge been allowed to continue for many months without medical aid. Nor must it be supposed, that married women and mothers are its only subjects, as two of the worst cases in Guy's Hospital were in young unmarried girls. There can be no doubt, that it is more general among the poor than the rich, and that marriage and parturition are predisposing causes. Capuron says it is most common in married females beyond the middle age; and it must be granted, that the more numerous the children the more

are the passages in a condition favourable to the displacement of the pelvic contents. Dr. Alexander Monro relates a case occurring in a girl of three years old. Two examples of prolapse, where the womb was all but external, have come under my notice, and in neither had puberty been fully developed. They were both strumous girls, and being nursemaids, had to carry heavy children, thus accounting for the early appearance of the malady.

Complete procidentia is sometimes recognized, where the uterus is of normal size; or where, being unimpregnated, its volume has been increased by hard or scirrhous growths, polypi, hydatids or moles affecting its walls or cavity.

Early pregnancy has often induced prolapse from increased weight, while the severity and protraction of labour have had a like effect. Nor must it be forgotten that ascites, a dropsical ovary, or any adventitious tumour in the neighbourhood of the uterus, may induce a similar result.

There has been a considerable difference of opinion as to the real pathological causes. These, however, are principally—

1. *Increased capacity and relaxation of the vagina.*

2. *Weakness and undue expansion of the broad and round ligaments of the uterus.*

Without denying the influence of the latter of these states, it is impossible, I think, not to allow to the former the principal share in the production of the descent. Still it would be wrong, if elongation of the uterine ligaments were excluded as a cause of the disease; as it must be evident, however little their relaxation may contribute to slight sinking of the womb, that its complete prolapse cannot occur without their being considerably stretched and elongated.

Little doubt can exist in the minds of those who have carefully studied the anatomy of the pelvic viscera, that the vagina, bladder, and rectum, together with the muscles lining the cavity of the pelvis, have the greater share in maintaining the uterus in its natural position.

Still displacement beyond the vulva may occur in virgins, although it is rare to find even slight prolapse associated with a healthy and tolerably contracted vagina. Not a little, however, must be attributed to the kind of effort immediately preceding

the descent. If, for example, prior to or during menstruation or pregnancy, or early in the puerperal month, before the uterus has resumed its unimpregnated size, there should be a blow or fall, or inordinate and sudden physical exertion—under such circumstances, the uterus may, without any morbid relaxation of its ligaments or increased size of the vagina, be at once pushed down beyond the external parts. If such descent continue, it will be seen, that stretching of the ligaments, and of every tissue connecting the pelvic viscera and distension of the vagina, must be the consequence, and not the cause of the displacement.

Nor can it be disputed, that fibrous or scirrhous tumours, till they attain a bulk too great to allow of their being retained in the pelvic cavity, must act entirely independently of either of those chief causes already pointed out. But where the vagina and its orifice are much dilated from frequent child bearing, leucorrhœa, excessive menorrhagia, or uterine hemorrhage, the displacement is the effect of these states, and easily induced by cough, sneezing, or vomiting, especially if the bladder or intestines be full, or indeed by any slight downward forcing of the abdominal viscera.

Congestion of the uterus is thought by M. Lisfranc to be the most universal cause; but the opinion is probably inaccurate. In numerous instances I have seen the organ congested without any descent; and frequently, even in entire procidence, I have been unable to discover more than very slight increase in its bulk.

Dr. Fleming mentions, that he has witnessed the malady as the consequence of ascites; and I am confident that a woman with a large pelvis, and consequently a short vagina, is especially prone to it. I concur in M. Jourdan's observation, that it is more common in thin than fat women.

But, certainly, the malady in all its complete forms, is more frequently the result of labour and the too early resumption of the upright posture, than of all other causes combined. Mr. Roberton's able and careful researches have determined this point. In early pregnancy the additional weight of the uterus often occasions slight depression; and a similar result, accompanied with vaginal heat and pain, ensues in delicate

females, apart from pregnancy or marriage, as the consequence of long continued leucorrhœa. I have frequently known the first symptoms indicating prolapse, to have occurred in young unmarried women after dancing, running, or too severe exertion during menstruation. In this way, complete procidentia (the uterus hanging pendulous between the thighs) had been produced in a young single woman, a patient of mine at Guy's. Such results are a strong motive to quietude, at least in delicate women, while menstruating; as, during this process, owing to the increased weight of the organ, the uterine ligaments are stretched, and therefore weakened; in fact, every part connected with the uterus is soft and flabby; the vagina participating so fully in this relaxed condition, that it is easy to understand how any sudden and violent exertion may produce displacement. Dr. Davis almost entirely precludes the agency of a morbidly capacious vagina in the production of descent of the uterus; but, as it appears to me, on very insufficient grounds, and with a total disregard of the fact, that prolapse and procidentia are never found coexisting with a vagina of natural size; at least I have never seen these degrees of displacement without this canal being too large and distensible.

Symptoms.—These are *sympathetic* in the earlier stages, and *mechanical* in the more established and chronic disease. Irritable women, and those who have been tenderly and luxuriously brought up, suffer much even from the slightest sinking of the uterus; while strong women in the lower ranks of life almost entirely disregard these early inconveniences, and complain but little even when the organ is entirely procident, of large size, and extensively ulcerated. I was much struck lately by a contrast of this kind: a lady, wealthy and self-indulgent, from over exertion in dancing, while the catamenia were present, displaced the uterus very slightly, so slightly, that in a day or two it was only just resting on the perineum; yet she never stirred off the sofa for a month. At the same time I had under my care a poor woman, earning her living by carrying vegetables on her head to and from market, whose uterus, as large as a good sized melon, was entirely out of the vagina, and ulcerated. She merely wanted to be relieved from the acrimony of the discharge, scarcely complaining at all of the mechanical in-

conveniences of weight and position. Doubtless relaxation of the organ frequently exists without being recognized, as the early symptoms of lumbar weight and uneasiness are indications too common to be soon attributed to displacement. But when these have continued long, nausea, loss of appetite, constipation and flatulence being added to them, suspicion is excited. It is then found, that standing or walking aggravates the symptoms, and that the recumbent posture alone gives certain and immediate relief. Almost constant leucorrhœa and occasional strangury claim attention. Thus week after week passes away; and remedy after remedy is tried; the patient ultimately soliciting an examination, that the disease, being accurately made out, something more curative may be tried.

In the commencement of the disease, a vaginal investigation will detect a sinking only of the uterus: it will have lost its normal position in the centre of the pelvis; and instead of being three or four inches from the orifice of the canal, the cervix will be found resting on the perineum, which it ought not to touch, and within an inch or two of the vaginal orifice; the vagina itself being generally moister than natural, loose and corrugated, or capacious and smooth.

In complete procidentia the symptoms vary much, partly arising from the size and protrusion of the uterus; the susceptibility of the patient; and the extent to which the bladder and rectum and other organs may be affected.

Cases are on record where the bulk of the procident womb was enormous, reaching nearly half way towards the knees; and on several occasions in hospital practice, I have seen the organ irreducible and of vast size. Nor even then, are the mechanical inconveniences so intolerable as might be supposed. During menstruation and very hot weather, there is much suffering; but in general some contrivance is adopted by which the womb is shielded from pressure, and thus these women continue to go through their daily work. Sometimes, however, abrasion passes into ulceration, when the pain and the discharge compel quietude and the relief of an hospital. Many such cases are yearly admitted into our female wards. Menstruation is rarely disturbed, nor are menorrhagic or uterine bleedings at all common. The functions of the uterine system indeed are scarcely

deranged by this complete derangement of position; even conception takes place, and there are examples where its occurrence might have been deemed almost an impossibility.

One day at Guy's, a woman, about 50, presented herself amongst the out-patients for complete procidentia. She was admitted, and after several attempts I gave up all idea of returning the uterus. She told me, that for months before and during the whole time of her last pregnancy the womb was external, and that the child was born while the entire uterus was beyond the vulva. She referred me for corroboration of these facts to a medical man at Greenwich, who had preserved notes of the delivery; but from numerous daily engagements these notes were not applied for at the time.

A corroborative case is related by Richerand in his Nosographie Chirurgicale, and by Capuron in his Mal. des Femmes, pages 300 and 302.

"A peasant girl, aged 14 years, made a violent effort during menstruation, which precipitated the womb externally; it was not reduced, and she insensibly became accustomed to its inconvenience until the age of 22 years, when she married. She enjoyed excellent health, menstruated regularly, and bore the fatigues of severe agricultural labour. At the age of 40 she was childless; at that period, however, "un jour son mari dilata l'orifice uterine, y introduit le gland, et determina la conception." The fœtus and womb gradually developed, and the period of parturition arrived. The labour pains were regular, but insufficient to expel the fœtus, as they were very imperfectly assisted by the action of the abdominal muscles and the pressure of the viscera, and more especially as the neck of the womb and the sides of its mouth had acquired a cartilaginous hardness. The contractions of the uterus at length became ineffective. M. Marrigues of Versailles was consulted; he found the uterus external to the vulva, forming a tumour the size of a very large melon, whose parietes were hard, and its orifice placed inferiorly, about an inch in diameter. A double incision was made to enlarge it; the labour terminated favourably; a full grown dead infant was born; and at the end of two months the woman had perfectly recovered."

The following case occurred to Mr. Kingdon:—"He was re-

quested, by a general practitioner, to visit a woman in labour, on whom it was supposed gastrotomy should be performed, in consequence of extra uterine pregnancy. The woman stated, that the cervix uteri had been external to the vulva for two or three years, and had never returned, and that her husband had connection with her through it. On making a vaginal examination, the finger passed readily into the mouth and neck of the womb, and left no doubt of their external position. The infant was very active, and its form was easily traced through what were considered to be the abdominal parietes. Dr. Blundell agreed as to the nature of the case; but found the uterine orifice somewhat drawn up by the labour pains within the vulva. He also distinctly felt the infant's head. The labour, though tedious, was not violent, yet the woman gradually sunk and died. On examination it was found, that only about two-thirds of the body of the womb had dilated to contain the fœtus, the parietes of which portion were not much thicker than brown paper. The lower third of the body passed, funnel-shaped, to the cervix, which was much elongated, with its sides softened and thickened, and sufficiently patent for the purpose which it had for a long time served."

It is not often, even in the worst forms of procidentia and prolapsus, except during pregnancy, that the bladder or rectum are seriously impeded in their functions, although strangury and irritation about the anus are then not uncommon.

The vagina, which forms the external covering of the procident organ, is often ulcerated within a few weeks after exposure to the air and the acrimony of the discharges. These sores are seldom either extensive or deep, and are generally situated in or near the os uteri. Sir Charles Clarke says, correctly enough, that they have the appearance of healthy sores, and that they heal readily upon the replacement of the prolapsed parts. In this latter statement I do not concur, for few points in my hospital cases have been less easily effected than their cicatrization. Certainly it is better when these ulcerations are not painful, and they are sometimes, to return the uterus first; but, even with this advantage the discharges often increase, the ulcers enlarge, and great perplexity arises. It is rare for a completely procident uterus to involve the life of the sufferer in danger;

and few things excite more popular surprise, than that so important an organ should be entirely displaced, of enormous bulk, in a state of ulceration, and yet without involving risk to life. Although this is true, it must not be forgotten, that serious evils are occasionally produced, especially when the procidentia occurs suddenly, after violent effort, or when pain and inflammation take place. I recollect once, during my apprenticeship at the Nottingham Hospital, to have seen a patient of Mr. Attenburrow's, in whom, owing to a fall from a corn stack, the uterus had been suddenly extruded from the vagina. It was of great size, deeply inflamed, and very painful. The pulse was quick and compressible. She was constantly sick, and gangrene seemed rapidly approaching. Spirituous fomentations and poultices, good nourishment, and brandy and ammonia, were most beneficially employed, and in a few days the uterus was replaced.

Nauche has the following case (page 84, vol. I.) :—" A lady, somewhat advanced in life, who had long been the subject of prolapse, had suddenly induced, after a shaking drive, complete procidentia. M. Elmer found her suffering from pains in the stomach and limbs and exhaustion. The uterus was of enormous size, black, exhaled a fœtid odour, and had all the indications of commencing gangrene.

" In three days separation commenced, and soon afterwards the uterus was entirely detached. All the bad symptoms ceased, and her health was soon restored."

Dr. Hamilton (Practical Observations, P. I, page 4), mentions the case of a poor woman of the name of Watkins, who died in Kensington Workhouse, in whom the protruded parts measured more than fifteen inches in circumference and six and a half in length ; it was found that they contained, besides the uterus, the urinary bladder, with a portion of the meatus urinarius, part of the rectum, the fallopian tubes, and the small intestines.

Capuron says, that the " cul de sac," formed behind the procident uterus and the vagina, often contains fluid.

Diagnosis.—There is seldom much difficulty in recognizing the extreme degrees of this displacement. The *presence of the os uteri at the lower part of the tumour is almost infallible,*

although I have once known an ulcerated fissure in the base of a polypus, which I removed afterwards by ligature, not only mistaken for procidentia, but caustic was used for weeks, from the conviction that by this treatment it would be cured. Such errors may always be avoided by the introduction of a bougie into the opening; when, if it be the result of disease, the instrument will soon be stopped in its progress; if the contrary, it will probably pass to the fundus of the procident organ. It can never be difficult to distinguish procidentia from either partial or complete inversion of the womb, as in these latter diseases the os uteri will be wanting, and the rougher, pale, mucous lining of the inside of the uterus, which being inverted, forms the external covering, cannot easily be mistaken for the smooth, pink-coloured, and shining vagina, which conceals from view the procident uterus within. Nor in procidentia will there be bleeding, a common and dangerous occurrence in inversion.

Prolapse of the bladder, rectum, or vagina, and tumours of the pelvis, can only through great inattention be mistaken for descent of the uterus. The greater elasticity and softness of the former organs, and the situation of the latter, and in all, the absence of the os uteri, lead to a certain diagnosis.

Treatment.—Sir Charles Clarke thinks, "if nothing were done in the way of treatment, a patient labouring under this disease, might die from weakness, induced by the large discharges and the disordered state of the stomach; or she might die from inflammation taking place in the parts contained in the inverted vagina, which are more liable to pressure than when in their usual place, the cavity of the pelvis and abdomen." My experience does not confirm this opinion; for, neither in hospital nor in private practice have I ever seen death directly attributable to such a cause. I mention the circumstance, however, because it marks the conviction of one of our most celebrated practitioners, who must have seen a great number of cases when he made the remark, of the serious character of the malady, of which he unhesitatingly affirms, if fatal terminations are uncommon, "that it does frequently happen, that the patient drags on an uncomfortable life for a number of years, till she is destroyed by accident or by some other disease."

The treatment is of two kinds.

First. In relaxation and *slight prolapse*; the recumbent posture, tonics, and astringent injections.

Second. In the more aggravated forms of prolapsus, and almost invariably *in procidentia,* mechanical means, such as pessaries, or other contrivances for support.

In relaxation and slight prolapse, the recumbent posture alone will often suffice, but there are few diseases in which the attendant symptoms vary so much; women sometimes suffer great misery from vaginal irritation, nausea, fever, and constipation, where there is only slight relaxation; and in others the descent of the cervix only, so far as just to rest upon the perineum, induces almost constant pressure, leucorrhœal discharge, and strangury. Indeed, I have heard many patients declare, that the inconveniences of entire procidentia were far less than those of relaxation and prolapsus. Of delicate, susceptible women, this is especially true. Lisfranc erroneously affirms, that all the slighter cases of depression and prolapse are caused by congestion of the uterus; a statement excluding at once morbid capacity and relaxation of the vagina, which are, as most practitioners acknowledge, very common causes. The same author also states, more extraordinarily still (Mal. de l'Uterus, page 528), "that hitherto, even where the procidentia has been complete, he has avoided using mechanical support." "The congestion," he adds, "must first be treated, and if after that the displacement of the womb persists, the pessary may be employed, if the patient can bear it." That congestion of the uterus leads to displacement, is quite true, and so far M. Lisfranc is right; but to affirm that the disease is always so induced, shows a want of judgment not uncommon in this writer.

In cases where the patient complains of weight and pain low down behind the pubes; of dragging of the bladder and rectum; and an inability to stand long without great difficulty; and especially where these symptoms are associated with amenorrhœa, it may be suspected, and it will often be ascertained on examination, that the uterus and its cervix are large, somewhat hard, and slightly tender; in fact, in a state of congestion. Here it is that leeching or scarification of the neck, the recumbent posture, the hot hip-bath, mild aperients, and regulated diet, are generally curative. Examples of con-

gestive displacement are not uncommon where women have too early left their beds, or where they have imprudently resumed their usual avocations too soon after confinement. On rest, indeed, too much stress cannot be laid, as I believe few cases will receive even relief, where it is not practised. Dr. Hamilton was eccentric on this, as on many other points. He says, "that although the horizontal posture immediately relieves the uneasy feelings of the patient, the author long ago ascertained, that it tends not only to impair the general health, but also to aggravate the disease by increasing the relaxation of the natural supports of the womb." Of course all will allow, that a woman lying on her back for months, merely as an indulgence, would probably injure her health and induce obesity; but the posture is here recommended that permanent as well as immediate relief of pressure, irritation, and nausea may be obtained. A few weeks, other remedies being employed, will suffice for this important purpose, so that the good will be gained without any injury to the general health. Nay, very frequently appetite, digestion, and alvine action will be improved by it. The Professor oddly enough also says, that taking off the weight of the uterus, already from congestion, heavier than natural and already stretching the uterine ligaments more than they can bear, from having sunk below its natural level, "increases the relaxation of these natural supports of the womb." How this can be I do not understand; but certainly, correct observation and common sense will satisfy any one, that the best way to restore tone and strength to a weakened, elastic cord, is to discontinue the action of the power by which it has been excessively stretched. This is precisely what is done by the recumbent posture.

The application of cold, either to the body generally, or to the pelvis and vagina, by salt water baths, either the shower, douche or hip baths, and the use of astringent injections, are remedies whose value is authenticated by long practice.

The efficacy of astringent vaginal injections cannot be denied, although their employment is still objected to by some, because they have produced mischief when improperly used. The abuse of a remedy is no argument against its judicious employment; and certainly few things have done more good,

in this stage of the affection, than these injections. For directions as to their use and several formulæ, I refer the reader to pages 139, 207, and 208.

The alum hip bath every night at 98°, and for fifteen or twenty minutes, is singularly efficient in giving tone and some degree of constriction to the vagina. It should be of the strength of ʒxvi of the salt to each gallon of water, and a bath of three gallons is usually enough. Immediately before and during menstruation these measures are to be suspended; and no judicious practitioner will ever use them, if there be either acute or chronic uterine inflammation or congestion; or will neglect to adapt their strength to the peculiar irritability of the patient. Dr. Hamilton is vehement in his condemnation of this mode of treatment; and his essays, notwithstanding their general excellence, exhibit in a strong light, the disadvantages of an author writing under the unalterable conviction, that he must be right and every one else in error. The advanced age at which he published these treatises, together with his manifest dislike of any contradiction, go far to explain their dictatorial character. One out of many instances of his strong prejudice is seen in the following statement: "On the supposition that styptic injections were safe, and that they could really restore tone to the vagina [which the author concedes for sake of argument, for the contrary is his sincere belief,] it must be obvious, that if his view of the nature of the disease be correct, no benefit could accrue from the practice. Accordingly, no practitioner trusts to these means in cases of any considerable degree of prolapsus uteri." On this passage it may be remarked, that styptic injections, judiciously used, are quite safe; that the stronger astringents will really restore the vagina to its natural capacity, and must sometimes be left off, because they produce too much constriction; and, lastly, that many practitioners employ and place great confidence in their efficacy.

Again. "The author's experience has convinced him, that astringent injections into the vagina, are apt to injure the uterus rather than the canal into which they are thrown!! He can solemnly aver, that of the numerous cases of chronic enlargement of the uterus which have fallen under his notice, by far the greater number had been unequivocally occasioned by the

use of styptic injections per vaginam." When it is remembered how many women, suffering from uterine enlargement, neglect all remedies, till the weight, pain, and other inconveniences compel them to apply for relief; how few use any injections effectually, the fluid scarcely ever reaching half way up the vagina; and that the popular astringents are green tea, zinc, and alum largely diluted—it will be difficult to regard as of any authority so partial and exaggerated a statement.

Uterine, pelvic, and abdominal tumours may occasion prolapsus, not cureable by the usual means. Relief may in such instances be given by a pessary; but so long as the diseased growths exist, the prolapsus or procidentia, as one of the results, will be permanent. Thus, by the recumbent posture, tonics, and local astringents, the general health may be improved, and the natural capacity of the vagina restored, and still the prolapse will persist, or perhaps become worse. Such a result will render other means necessary.

Treatment of Procidentia Uteri.—There will seldom be any difficulty in replacing a procident womb, if the attempt be made soon after the protrusion; if the tumour be not unusually large and in a state of inflammation; or if there be no pelvic growths. Cases, however, do occur, where fomentations, leeches, and scarification are required in addition to general bleeding and antiphlogistic treatment; and few things are more painful to the sufferer than a violent and forcible attempt to reduce an enlarged and inflamed womb. On one occasion, a fortnight elapsed before these measures had sufficiently reduced the size of the organ to permit a safe attempt at reposition: here, however, every circumstance was unfavourable; the patient had long lived intemperately, carrying great loads on her head, and working very hard. The procidentia, too, which happened suddenly, was entirely disregarded for several days, till the severe pain, great weight, excessive discharge, and excoriation of the thighs, compelled her to seek advice. Leeches did good; but I obtained far more advantage from scarification, and eventually she was able to wear a pessary constantly and comfortably. Dr. Labatt's case I append in a note, as it is both interesting and instructive.*

* Mrs. ——, æt. 27, suffered from prolapsus uteri after her first and second

It must not be supposed, when reduction has been effected, that the uterus can always be retained in the pelvis. In several

child. The uterus was returned, and retained, "in situ," by a pessary, which, however, was shortly afterwards withdrawn, as it occasioned "pain, strong bearing down efforts, constant sickness at stomach, and a troublesome strangury." The uterus, after this, remained prolapsed for several months, and in "March, 1806," says the Doctor, "I was requested to see her, when I found her worse in every respect; she was much emaciated, and teased with a cough and copious night-sweats. She had no appetite, but constant nausea and vomiting: the uterus protruded through the os externum to a great extent, it was considerably enlarged, and very sensible to the touch, and seemed evidently in a state of inflammation from friction between the thighs, which appeared excoriated by it. Around the os uteri was observed a superficial ulceration. The base of the tumour (which was *of a conical shape, the os uteri situated at the lower part or apex*), formed by the prolapsed uterus, was surrounded by displaced intestine, and at the anterior part was discovered a swelling, which was found to be the bladder, as, on pressing it, the patient passed water involuntarily. The slightest attempt at reducing the uterus, considerably increased the lancinating pains through the pelvis, from which she was never entirely free. With these symptoms, she had a constant pain and sense of weight in the lumbar region, increased by an erect posture, a constant and painful desire to pass urine, frequent and profuse uterine hemorrhage, and in the intervals a copious leucorrhœa. The management of her family, in which necessity obliged her to take an active part, tended considerably to aggravate her uterine complaints. Her health became so bad, however, that for some time she was obliged to relinquish every kind of exercise, and remain in a horizontal posture. Under this untoward combination of circumstances, I expressed a wish to consult Doctor Clarke, who suggested scarification of the uterus, as the only remedy left untried, which afforded any probability of relief, at the same time adding, that he recommended it on the authority of a German writer, never having seen it actually put in practice. He considered this patient's situation so desperate, as to justify any rational expedient, however novel. She readily consented to the operation, which Mr. Dease performed, by making ten or twelve bold incisions in the form of radii from the apex of the tumour, as far towards the base as was consistent with the safety of the displaced intestine and bladder. The patient felt little pain during the operation. A discharge of blood, not, however, so copious as might have been expected, continued for several hours, followed by an ichorus discharge, which continued for some weeks. She felt no immediate change of any kind, nor any benefit from the scarification; on the contrary, for five or six weeks she had reason to believe that it increased her distress; after that period, however, she was sensible of an amendment. The size and morbid sensibility of the womb began gradually to diminish, so that in a short time she was able to return it, and wear a pessary with little inconvenience, but, this being too small, and falling from the vagina, was discontinued. But at some distance from home, and anxiously engaged in attending her husband, who was dangerously ill, she allowed the uterus to come down, and remain so until the beginning of April, when she returned to Dublin. I found the womb completely prolapsed, but much diminished in size, and not sore to the touch as formerly; it was returned, and retained in its place by a pessary of proper size, which she now wears with little pain or inconvenience. The pains in her loins and through the pelvis are much better,

hospital patients, I have been compelled to remove the pessary and allow the parts again to descend, to obviate pain, fulness, and inflammation. In one instance a patient named Berriman (there is a drawing of the disease in the museum by Canton) left the ward, preferring the procidentia to the sufferings attendant on reposition. For several years, I was in the habit of seeing her occasionally, and the organ continued procident till death, that event certainly having been hastened by constant and large leucorrhœal and menorrhagic discharges. The reposition may sometimes, in old cases, be maintained, by keeping the uterus *in situ* for several hours only, and then permitting descent; a repetition of the experiment for a longer time eventually terminating in permanent reposition by means of the pessary.

The reduction is best effected by placing the patient on her back, the pelvis being higher than the shoulders, to take off the weight of the abdominal viscera. The thumb and two or three of the fingers of one hand, or the palms of both hands, are now to embrace and make slight pressure on the lower part of the tumour, while the fingers are to knead the superior portion, and gradually to carry it upwards and backwards into the pelvis, and especially towards the hollow of the sacrum. The return being completed, a pessary must be introduced, so far as to rest on the perineum, thus affording the requisite support. Much, in such operations, depends on tact and gentleness: haste and violence are sure to injure, while address and patience are generally successful.

Sometimes it is necessary to leech and foment the procident organ before it can be reduced; and it is quite possible that some weeks may elapse ere the circumscribed ulcerations are sufficiently healed to allow the introduction and wearing of a pessary. In several instances, where the uterus has been of great size and extensively inflamed, a soft linen bandage, wetted

the uterine discharges lessened, her general health improved, and she enjoys a degree of comfort, to which, for many months, she was a total stranger. In August, 1807, she was almost free from complaint, still wearing a globe pessary without inconvenience. Her general health was restored, and she could take long walks without any increase of her uterine complaints.—[*Dublin Medical and Physical Essays, vol.* 1, *p.* 235.]

with a warm solution of the Liq. Plumb. Subacet., and applied sufficiently tightly to impart a feeling of comfortable support, has contributed to an earlier reduction. The recumbent posture is indispensable, not only prior to, but for some days after the reposition, certainly till the pessary is adjusted and can be worn without inconvenience. The ergot of rye has been given in large doses, for the purpose of contracting the size of the uterus, and it is said with good effect; although a practitioner, who had recently employed it, assured me, that the pain and spasm far outweighed any possible advantage it might have conferred.

The ulcerations must be variously treated: in some very irritable and painful sores at Guy's, great good was derived from covering them with soft cotton wool, thus entirely excluding the action of the air. Caustic benefitted many cases, and the powdered oxyde of zinc thickly applied over the surface, was every now and then curative. Sir Charles Clarke's ointment, consisting of two drachms of Balsam. Peruvian in one ounce of Spermaceti Cerate, is often exceedingly useful. Other ointments and lotions might be suggested, but they may be safely left to the knowledge and resources of the practitioner.

Of the examples of irreducible procidentia, the majority are obnoxious to ulceration, inflammation, and pain, evils generally curable, or susceptible of great alleviation; but it sometimes happens that gangrene and extensive subsequent sloughing render the removal of the displaced organ absolutely necessary. There are many published instances of the operation; and in nearly all, for I am scarcely acquainted with a fatal result where the removal was judiciously managed, the patients have recovered well and quickly; such results forming a remarkable contrast to the hazardous and formidable, but happily now obsolete, operation of extirpating the uterus from the pelvic cavity. Some years since I saw a surgeon, remarkable for his promptitude, apply a piece of whipcord round the upper part of the sac of a procident gangrenous uterus, and having carefully excluded the intestines, with one stroke of the knife he cut it off, about an inch below the ligature. The patient recovered without one bad symptom, but the ligature did not come away for nearly three weeks. Recamier and several English

surgeons have performed the same operation. Wrisberg mentions a case of removal by a midwife with a knife; Langenbeck extirpated the organ with the bistoury, and in a case where the ligature was used by Ruysch, the result proved fatal.

Thus the procident uterus may be removed, either by the knife alone, by the ligature, or by excision, immediately after the ligature; this combined method being probably the safest and most desirable. Of course the operator should be prepared, where the knife alone is used, to stop hemorrhage, either by pressure on the bleeding and incised surface, by tying the bleeding vessel, by caustic and cold, or by the actual cautery. Such measures are, however, little likely to be required where the combined operation by ligature and the knife has been employed. Great caution must be observed in excluding the intestines, omentum, or bladder from being injured in the operation. If the ligature be used alone, it should be passed round the pedicle of the tumour, and tightened daily, if there be not much pain. If, on the contrary, as I have several times known in the tying of polypi, the tightening produces severe suffering, then a longer time must elapse between the repetitions, and peritonitis must be guarded against. Here, too, care will be necessary to exclude the intestines from the grasp of the ligature. Several weeks are sometimes required for the completion of the process; and there have been instances, where patients have endured the evils of irritation, fetid discharge, and even inflammation for nearly two months. Hence Windsor and Duparcque, and Recamier also, have recommended amputation of the procident organ below the ligature, a few days after its application, by one stroke of the bistoury. This plan certainly combines the advantages of both operations, without the evils resulting from either if practised separately.

Pessaries.—Few instruments have been so decried as the pessary, and yet, if judiciously used, it is by far the best mechanical support for a procident womb. It would indeed stand alone as a remedy, if it were universally applicable, or if its employment was never attended with inconvenience. But I can truly say, that during twenty-three years' practice, I have met with very few instances, out of a great number, where it could not be introduced, or where its employment occasioned serious

or permanent mischief. I do not, however, deny, that injury may have arisen from its having been injudiciously used; from its having been of too large size, or of improper shape; or from its having been too long worn without removal. Such errors may have led to ulceration, and to its passing into the rectum. Leucorrhœa may have been occasioned by it, although it must not be forgotten how commonly and excessively this secretion attends uterine displacement, where no pessary has been worn. Dieffenbach says, "that he has frequently known the pessary occasion putrid discharges from the vagina, in some cases, dilatation to a most inconvenient extent; in others, contraction of the same organ; and, finally, in other females, dangerous cancerous or fungous productions from the vaginal mucous membrane." "Sometimes," says the professor, "I was able to extract the foreign body with my fingers; but in many other cases it was necessary to break it up with strong forceps, before the fragments of a stinking encrusted substance, whose composition could not easily be determined, were removed; several patients laboured under excessive irritation of the bladder, and when the foreign body was large, many suffered for years under obstinate constipation." It is evident, that all these evils might have been avoided by the timely removal of the instrument. Putrid discharges certainly indicated the impropriety of its continuance; and it is difficult to understand how dilatation of the vagina should have arisen, if the pessary had not exceeded the proper size. But certainly it is curious and satisfactory to find it urged as an objection, that the pessary induces contraction of this canal. Would that such a result were far more common, for then the instrument itself would be far more useful. Cancerous or fungous growths are attributed by Professor Dieffenbach to the use of the pessary. Is this strictly true, or may not the statement have been unguardedly made? That ulceration every now and then occurs, is acknowledged; but certainly nothing like fungous or cancerous sores have ever fallen under my observation; and if it could be proved that evils of such magnitude were induced, it would fully justify the abandonment of the instrument. The necessity for breaking up a pessary, and the difficulty of its removal, only prove that great neglect has occurred; and show how

incumbent it is on the practitioner or patient every few months to remove and wash, or to replace the old with a new pessary. I cannot forbear quoting the following remark of Dieffenbach: "On the other hand, however, it cannot be denied, that pessaries and the sponge are sometimes useful, when properly employed by a skilful hand."

The following is the operation by which he proposes to supersede the use of the pessary. I need scarcely say that in many, perhaps most of the examples of the malady, the remedy would be far worse than the disease. "After having emptied the bladder and rectum, I commenced by removing, from the left side of the vagina, a portion of the mucous membrane, resembling in size and shape the section of a hen's egg; the small end of the ellipse being directed backwards, the oval end forwards, and touching the nymphæ. After having cleaned the edges of the wound, I placed five strong stitches on either side in the following manner:—the two posterior sutures on each side were first applied, the uterus was then returned to its natural position, and the rest of the sutures were finished; had they all been applied in the first instance, it would, perhaps, have been impossible to have returned the uterus afterwards. If we except burning pain in the vagina, and a moderate febrile movement, the symptoms which followed this operation were not very remarkable. The patient underwent an antiphlogistic treatment, and cold injections were thrown up every hour into the vagina. Some of the sutures were ultimately divided with the scissars, and some came away of themselves. The woman recovered, and the operation was successful." The professor has repeated the operation many times since, with equal success. Fewer ligatures were employed, generally three, but sometimes none at all, "for the edges of the wound frequently came in close contact with each other after the reposition of the uterus." "In several cases, after having replaced the uterus, I have performed the operation by merely removing a fold of the vaginal wall, which was drawn forward with Museux's forceps, and then clipped off. This is much the easier method of the two; but the surgeon should always be on his guard against the danger of wounding the bladder or rectum, which might take place if a deep fold of the vaginal

parietes was removed close to its base." — *Lancet for May 20, 1837, p. 303.*

Another operation, the same in principle, but different as to mode, has been practised in this country at the suggestion of Dr. Marshall Hall. It consists in dissecting off a portion of the vaginal mucous membrane, and bringing the edges of the wound into contact by ligatures; so that when complete union takes place, the capacity of the vagina shall be reduced by the breadth of the portion removed. Dr. Heming says, the operation is easily performed: the patient being placed in the position for lithotomy, and the bladder being emptied, the uterus is to be drawn downwards, or to either side, according as it may be determined to take away the strip anteriorly or laterally. Dr. Hall had it removed from the anterior part of the tumour, while Dieffenbach prefers taking off a portion from each side. The operation may be commenced either from the upper end of the tumour, or from the os uteri; care being take to remove as little as possible, besides the membrane itself, and especially to avoid wounding the bladder. The three ligatures, for this number will generally suffice, should all be inserted before any one of them is tied; that nearest the os uteri should be drawn first. While the tying is going on, the tumours should be pressed upwards, so that when the operation is finished, the tumour should be quite within the cavity of the pelvis. It is recommended that the strip should be triangular, and its apex towards the os uteri. There is seldom much bleeding, but if necessary, the divided vessels may be twisted, or cold may be applied. Pain is rarely felt, except when the part about the os externum is removed. Dieffenbach remarks, that occasionally the patient suffers from vaginal heat, pain and discharge; and vaginitis may require the removal of the ligatures and antiphlogistic treatment.

The testimony in favour of these surgical means of relief is pretty unanimous so far as the operators themselves are concerned, but yet without any diminution in the number of the cases, in which such surgical means might be tried, we scarcely hear of a repeated operation. This probably arises from the disproportionate severity of the remedy; for, independently of a natural aversion to the surgeon's knife, excepting in cases of real

and dangerous necessity, it seems scarcely reasonable that a woman should submit to such measures when nearly permanent relief may be afforded by safer and less painful means. I have seen many and really bad examples of procidentia, and yet in no single instance have I felt justified in recommending these operations. Dieffenbach, Ireland, Hall, and Fricke speak in high terms of their success. One case was shown me by the operator himself; but although the operation had been ably performed, the uterus was again making its way through the external parts. Dr. Davis objects "to the practice for child bearing women, inasmuch as any considerable contractedness of the vagina, which the abstraction of a large portion of its substance might be expected to produce, and which, in practice, it might not prove an easy thing to confine within any assignable limits, could not fail to render labour difficult and even dangerous." I concur in this opinion, not from actual experience of the results of the operation itself, but from what I have observed after ulcerations of the vagina, the consequence of undue force in delivery, and in the use of the forceps, as also after surgical operation. In such instances a predisposition to increased contraction has often been observed, and we all know how anxious are the labours where cicatrices, bridles of indurated tissue, and hardness about the vagina, obstruct the natural progress of parturition. These remarks are not applicable to unmarried women, or to any in whom the catamenial function has ceased. Of course all operation should be avoided if there be any development, however slight, of scirrhous or cancerous disease; and even where this diathesis is known or strongly suspected to exist, it would be imprudent to run the risk of exciting it into activity by incisions about the vagina and uterus. Dr. Fricke, the most zealous pursuer of the method, relates an instance of episoraphie, "where the patient afterwards became pregnant and was delivered by the forceps without the artificial bridge giving way." It would have been more satisfactory still, if Dr. F. could have told us, that "this artificial bridge" had not at first been produced by operation itself.

Various other means have been unsuccessfuly tried to procure adhesion of a portion of the opposite surfaces of the vagina, procuring in this way, at the cost of destroying the functions

of this important organ, a cure of the disease. Irritating cerates and a bag of alum, did, in Dr. Hamilton's practice, occasion "inflammation and sloughing, but no adhesion took place. These experiments having failed, the sides of the vagina were brought together by ligatures. The operation was ably performed by Mr. Liston, but no union was effected, and the sufferings of the patient were such, that the author resolved never again to be a party to such a practice." All must applaud the professor's resolve, for certainly measures followed by inflammation and slough of the vagina, and surgical operations entirely useless, but so severe as to occasion intense suffering, were sadly disproportionate to a malady susceptible of such great alleviation by other means. Caustic and the actual cautery have both been tried, but without success.

These, then, are the processes by which it has been attempted to obtain a radical cure of procidentia, and to dispense with the use of pessaries and all other artificial supports. I leave the reader to form his own judgment of their safety or danger; and without any prejudiced declaration that they are always useless, it may be said, that the cases are few indeed where such methods are justifiable, compared with those in which well adjusted pessaries will effectually relieve, and not unfrequently cure the disease.

Before describing the various kinds of pessaries, it may be well to dispose of the objections urged against the instrument, by Dr. Hamilton and other writers. It is affirmed, that pessaries can only act as palliatives; that they cause irritation and leucorrhœa; that they make injurious pressure on the contents of the pelvis; that if not frequently removed, they become encrusted with a calcareous matter, which may lead to ulceration even into the rectum, putrid discharges, and fungous and malignant growths; that patients, while wearing them have suffered from irritation of the bladder and protracted constipation; and that cases from time to time occur, where, from the laceration of the perineum, no ordinary pessary can be retained; and, lastly, that they subject the patient to the charge of the medical attendant for life.

It is not true, that pessaries never act but as palliatives. I have known many instances of their employment for several

months, no other treatment having been resorted to, where a perfect cure has been obtained; so perfect, indeed, that on removing the pessary, the descent has not again taken place. But if this objection were allowed, it would detract but little from its value, as the recumbent posture, astringent injections, tonics and cold, are far more efficacious with than without the pessary. Irritation and leucorrhœa may be produced, and I know there are patients, who, on these accounts, cannot wear it; but how few are these compared to the number where such evils subside in a few days; if the pessary, has been accurately selected as to size. I have often, indeed, heard the remark, that so far from there being annoyance, there has scarcely been any consciousness of the presence of the artificial support. That ulceration, into the rectum, although probably not more than one such instance ever occurred, may have been occasioned by too large a pessary, or by its incrustation, cannot be denied. But how easily might such evils have been prevented? Surely if these dangerous consequences are not inevitable, they cannot be adduced against the judicious employment of the remedy. On one occasion at Guy's, I had some trouble in taking away a caoutchouc pessary, which had become hard from the calcareous deposit of eight or nine years, it never having been removed during the whole of that time; but on my making some severe remark to the woman on her neglect, she simply replied, that the comfort she had derived for the years she had worn it, far outweighed any suffering she had latterly endured. She went out of the hospital quite recovered in a few weeks, and never afterwards, at least to my knowledge, had a return of the procidentia. I scarcely know any cases where irritation of the bladder, strangury, or constipation have continued beyond the first fortnight after introduction, if excessive exertion and errors of diet have been avoided. There are examples where, after replacing the parts and introducing a pessary, excitement, pain, and fever run so high, that abdominal inflammation may be feared. In such, probably, the mischief is more consequent on the reposition than on the pessary; but be this as it may, the instrument should be removed, and the uterus permitted again to come down. Bleeding from the arm, fomenta-

tions and poultices, leeches to the abdomen, and purging may be required, and for some days or weeks the attempt ought not to be repeated. If the pulse again rises, and the same evils are threatened, the reposition will be frustrated, and such a case may be one in which the uterus must remain procident. Laceration of the perineum certainly prevents the beneficial employment of the common pessary; but I cannot conceive why such an exception should be taken. These lacerations are happily exceedingly rare;—as compared with procidentia of the uterus the proportion must be small indeed; and it certainly cannot be fairly objected to any instrument, that it is not applicable to cases for which it was not designed. The circular ring pessary, the one in most general use, was intended to rest on the flooring of the vagina. Without such a foundation it cannot be employed, and this very flooring is often entirely destroyed by laceration of the perineum.

Dr. Hamilton, lastly, asserts, "that pessaries subject the patient to the charge of the medical attendant for life." Is not this contradicted by every day's experience? Women take out, wash, and replace the pessary themselves. I have known many who do this, and who only apply to their medical attendant in some unusual emergency, or when they think the size of the support requires diminution. The pessary is certainly not a perfect instrument; but how rarely, in the treatment of diseases, have we the choice of remedies so good as to be without some imperfections? Does it not much more frequently happen that our choice is limited? Procidentia is an evil, the wearing of a pessary is an evil also; but it does not require any great discrimination to perceive, or candour to acknowledge, that the greater evil by far is the procidentia; and that the lesser evils of the pessary, are merged in the benefits it so constantly confers.

A good pessary should be light, hard, and smooth, and so accurately adapted to the size of the vagina, that whilst it supports the uterus, it should produce neither pressure nor abrasion, and certainly not interrupt the evacuation of the bladder or rectum.

To fulfil these conditions, the ingenuity of medical men has been largely taxed, and many pages would be required for a

summary only of their various inventions. Gold, silver, lead, iron, sponge, cork, elastic gum and boxwood have all been used. The last is by far the best material, as it is light, and yet of hard texture, and so close in its grain, that it is not acted on by the discharges; being also, when well polished, perfectly smooth.

The *circular boxwood, or ring pessary*, is that in most common use. Its edges are round and smooth, with a central aperture for the tip of the finger to alter its position, or to assist in its removal, and to permit the escape of any natural or morbid discharges. In the construction of this form, care should be taken that the outer margin is tolerably thick, by which better support is afforded to the uterus, and there is less risk of any injurious pressure or abrasion of the inner surface of the vagina. It is also, of still greater importance, that the central hole be not too large. A small aperture will suffice for the purposes already mentioned, a larger one will allow the entrance and strangulation of the os and cervix, an accident exceedingly painful to the patient and perplexing to the practitioner. In a case lately, I had to scarify freely before the cervix could be set at liberty. It is probable, that many of the cases of inflammation, ulceration, and gangrene have had such an origin. But this could never happen, if, instead of an aperture large enough for the thumb, as it often is, there be one so small as to admit only the tip of the forefinger. Laundy has for many years made all the pessaries used at Guy's on this principle. It is rare to hear any complaints of this pessary when it has been of right size and properly introduced, for although I have tried every kind of abdomino-uterine supporter, Hamilton's, Hull's, and several others, yet I find that patients give the preference to this simple, cheaper, and generally more efficient support. The perineal pad, the distinguishing feature of these more elaborate contrivances, is not without its disadvantages. I have one patient who never has the bowels relieved without removing the "supporter;" and latterly, she has discontinued it altogether, because it produced great irritation and pressure about the vulva and rectum. This lady now wears a common circular boxwood pessary. Women, who can themselves remove and re-introduce this support, ought to be supplied with some of the same and of lesser size, never using a pessary a second time.

If the assistance of a medical man is required, once in three, four or six months will suffice, although, of course, exigencies may arise rendering more frequent attention necessary. Occasionally these instruments are worn for twelve or eighteen months without removal; and some months since I took one away which I had introduced four years previously. The patient had been in Van Dieman's Land during the interval, and had derived the greatest comfort from the support thus afforded. The uterus was so high up, and the vagina so healthy, that she has since gone through her daily duties without the pessary, and without any further descent. For married women this form is the best, as neither intercourse nor conception are prevented. Let it also be understood, that other remedial measures are not to be given up, as the time during which a pessary may be necessary, will much depend on the patient's persevering in the recumbent posture, and the use of astringent injections.

But there are cases where, owing to the morbid capacity of the vagina, the *hollow ball pessary* must be used. This form also is best made of boxwood, with several holes for the escape of the discharges, and having affixed to one end a slip of tape to facilitate its removal. Often this will be retained, when of proper size and well introduced, without any external mechanical contrivance; but where the dilatation of the parts is excessive, the plan of Sir Charles Clarke has succeeded well. But most surgeons are somewhat ingenious, and I frequently see inventions of greater or less utility, the half of which it would be impossible to enumerate.

Clarke retains a globular pessary '*in situ*,' in cases when the dilatation of the parts is excessive, in the following way:— "In the first place, a pessary is to be chosen, of the size which the case requires, and a small slip of brass is to be attached to it by its two ends, leaving a space between the instrument and the centre of this piece of brass: a belt of leather, long enough to go round the patient's body, is also to be prepared; to the centre of which, behind, a brass wire, as thick as a common quill, is to be attached a screw. This wire is now to be properly bent, and the pessary being introduced into the vagina, the wire is to be passed between the pessary and the piece of brass attached to it; and being brought

up between the thighs, it is fixed to the fore-part of the circular strap. The reduced parts are by this means supported by a pessary, and this is kept in its place by the unyielding piece of metal."

In still worse cases, where for instance the perineum has been lacerated, *stem pessaries* of different shapes, and variously arranged, have been used; but it seems hardly necessary to occupy space by an elaborate description, as in every surgical instrument maker's shop a great number may always be seen.

The *sponge* pessary remains to be noticed. I know only of one case in which it should be used—where there is excessive irritation and tenderness of the vagina and os externum. Here it may probably do good, if removed often enough to prevent abrasion or soreness. The objections to sponge are its increase of size, and consequent dilatation of the vagina, and its imbibing and retaining the discharges.

Dr. Hull employs an apparatus, the distinguishing feature of which is the keeping "*in situ*" of the procident organ by external pressure. A pad, elastic but firm, is made to bear upon the perineum, without interfering either with the rectum or vulva, a belt round the waist, and a connecting strap passing from before to behind, aided by springs and hooks, secures sufficiently firm compression to prevent the descent of the replaced womb. Several of my patients have worn this pad comfortably, and with tolerable success; but in most cases the pressure has induced pain, heat, and leucorrhœa, and they have gladly exchanged it for the pessary. The expense of these more elaborate instruments, is to poor women, in whom the disease is most common, a serious matter, especially as they frequently want repair. On the whole, I regard the pessary as by far the most applicable, and generally the most efficient remedy for procidentia.*

This chapter would be incomplete, if allusion were not made to elongation of the cervix uteri, a morbid alteration

* Baudelocque makes this remark, "a sensation of weakness, lowness, and faintness supervenes, if the uterus descends low down, and the woman insensibly falls into a marasmus, if some remedy be not applied. *I have seen several, in whom the return of health and flesh has been produced merely by the application of a pessary.*

of form of the organ, exceedingly likely to be mistaken for prolapsus. I have seen two well marked cases. One was a patient of mine in Guy's, and had borne several children. After the last labour, the uterus continued much lower down than usual, and marital intercourse was difficult and painful. Scarcely any attention was paid to it for many months; but on her admission, I was satisfied that the fundus and body of the womb were healthy and in their natural position, and that all the symptoms depended on elongation of the neck. The os was nearly external, and of considerable breadth; the rimæ were thin and expanded; and the flattened and attenuated cervix was easily traced to the upper part of the vagina, this canal being broad and dilatable:—the length of the cervix was four inches.

A medical friend gave me a rough drawing of a case of this kind lately under his care, where the cervix was drawn out nearly three inches, terminating in a very small and circular os.

In Guy's Museum we have a preparation showing the body and fundus quite healthy in structure, and normal in form and position; but the cervix is flattened, and of great length, and must probably during life have descended considerably below the external parts.

Dr. Heming described an example, in the Medical and Physical Journal, Vol. 68, for August, 1832, "there was also hernia of the posterior part of the vagina; the descent of the intestine in the utero-rectal fold of the peritoneum had carried down the os uteri, the uterus itself not being displaced, and its cervix consequently elongated mechanically; and this I think the usual cause of this form of uterine disease."

Boivin alludes to the affection, and says, "in some cases we have seen the whole organ drawn out as it were into a cord."

Lallemand saw examples of it in advanced age; and Leroux of Dijon observed something like it, but only during pregnancy. "In some cases," he said, "it is only the anterior labium of the os tincæ that is elongated; in others, it is the entire cervix. I have found it projecting from the os externum, like the neck of a bottle with its rim. I introduced my finger into the opening, as far as the internal orifice, which was closed by the membranes of the ovum. As soon as the pains of labour came on, the

cervix became shorter, and was gradually obliterated in proportion as the interior orifice expanded."

In a case of elongation similar to that of Leroux, only in the unimpregnated state, the surgeon, mistaking it for polypus, notwithstanding the presence of the os uteri at the extremity, applied a ligature, and the patient died of peritonitis.

A pessary could hardly be available here; its pressure indeed, would be painful, if it kept up the cervix from below, which if possible, could not be done without great danger of inflammation. The removal of this morbid elongation, still leaving the passage to the uterus free, affords unhappily the only means of relief; and even this could not be recommended, excepting the patient were married and desirous to have children. In women in whom the catamenial function has ceased, neither an operation nor artificial support should be attempted.

INVERSIO UTERI.

History, Causes, and Symptoms.—Inversion of the womb is a widely different malady from procidentia; for, while the organ is equally depressed in both, in the former, the uterus is turned inside out; the fundus losing its position, and sinking perpendicularly inwards and downwards, till it passes through the os, forming a tumour between the thighs. The sac is lined with peritoneum, being an extension of the abdominal cavity, while the external covering of the tumour is the mucous membrane of the uterus. It is scarcely necessary to remark, that the ovaries, fallopian tubes, and intestines, will occupy the space formerly filled by the now inverted womb.

Inversion is the most dangerous of the uterine displacements, but happily the most rare. In many years' private and consultation practice, I have only met with it twice; and in more than eight thousand labours occurring at the Lying-in Institution of Guy's Hospital, we have not had a single example. The obstetric patients in Petersham Ward have, during the last thirteen years, exceeded eight hundred; and yet, neither amongst them, nor in the far greater number of the obstetric out-patients, has there been one case, either of recent or chronic inversion.

It occurs most frequently immediately or soon after labour, the relaxed state of the puerperal womb being a favourable condition. A polypus occasionally, where the uterus has been large, has dragged down and inverted it; and it is perhaps possible, that the virgin womb might become the subject of inversion, if its parietes had been extended and weakened by accumulation of the catamenia, water, or pus.

There are three degrees of the disease.

Depression, where the fundus uteri sinks in the form of a cup within the cavity, but does not descend far enough to form a tumour in the vagina. Here the diagnosis is difficult; and in the case of a polypus, except the abdominal integuments were so thin, that the depression of the fundus could be felt through them, it would be impossible. If, however, such a degree of inversion was suspected in the puerperal womb, the introduction of the finger or hand into the uterus, would lead to a correct opinion.

Partial inversion is the second degree, and implies that the uterus has descended, as in prolapsus, into the vagina, but not beyond the os externum. Here the depression of the fundus, and the partial absence of the uterus from the hypogastric region will be such, especially after delivery, as to leave no doubt; —the vaginal tumour being large, semispherical, and closely grasped by the os uteri.

In *complete* inversion the womb not only fills the vagina, but projects beyond it, forming, if in the puerperal state, a large tumour, with the os uteri above, the fundus below, and the internal membrane covering it externally. In this, the worst form, the vagina partakes of the inversion.

Most authors have divided the examples of this formidable malady into acute or recent, and chronic; while, with greater practical accuracy, an able writer, Dr. Radford of Manchester, has substituted the terms "reducible" and "irreducible." In the former class may generally be placed the recent, and in the latter, the chronic cases of the disease.

Of the *causes* some are intelligible enough. Hard or sudden traction on the umbilical cord, during a relaxed condition of the uterus, and a violent pulling away of the placenta by the hand before it is entirely separated, require no explanation. Dr.

Davis dwells almost exclusively on a short cord, or the coiling of it around the neck of the child, as the great causes, but he is probably in error, as we do not find that inversion has followed in these cases, and in both the instances of the disease which I have seen, the funis was of the usual length. There must be other causes beyond these mechanical ones; for the accident occurs spontaneously; and after labours where there have been neither severity of pains nor delay. In one of my cases there seemed to have been almost instantaneous relaxation following contraction; the patient complained suddenly of pain and that another child was coming, and the uterus was inverted and protruded in a moment.

There is, probably, prior to the inversion, a great change in the uterus; either sudden and violent contraction, or instantaneous and complete relaxation; or the first may be immediately succeeded by the latter state. Some patients complain, just before the occurrence, of severe pain, and they fancy there is a second child; an idea strengthened by the pressure and fulness of the vagina, as the inverting womb is passing through it. In (case 84) the event was preceded by pain, followed by sudden and complete sinking of the womb; she felt as though "the whole inside was dropping through the external parts."

Dr. Radford remarks, "that the uterine pain, diminution of bulk, firm resisting feel, sudden formation, and rapid protrusion, warrant him in the deduction, that the fundus and body of the uterus, so far from being in a state of collapse or relaxation, are really in a state of unnatural excitement and action. But this is not the case with the os uteri; on the contrary, it is soft and yielding, as we find that it offers no resistance to the coming down of the tumour, whose protrusion is forcible and rapid."

It may then be inferred, that a quick labour, or any circumstance disturbing the natural progress of parturition, and inducing irregular and sudden contractions—the forcible use of instruments, mental excitement and alarm, and hemorrhage resulting from attempts to remove the placenta, may all of them be regarded as so many causes of inversion.

Capuron says, that dilatation of the os uteri, and atony, and flaccidity of the uterine parietes, are the predisposing causes.

The exciting causes are weight of the fundus, violent expulsive efforts, tractions by the funis, and the dragging of a polypus.

From the two cases I have seen, I have little hesitation in believing, as I have before observed, that the most general condition of the puerperal womb, immediately preceding inversion, is one of combined contraction and relaxation. Thus, while the fundus and a portion of the body of the organ are contracted, the cervix, and especially the os, are decidedly relaxed; affording the utmost facility for the spontaneous descent and inversion of the heavier and contracted fundus. Thus we may understand, that pulling at the cord, or withdrawing the hand from the uterine cavity, with the placenta only partially separated, and a short funis, are by no means the sole causes of inversion. I do not mean to deny that the uterus may be thus inverted; but when it is remembered how often the funis has been short and the labour quick; how many cases are recorded, several of which I have myself seen where the child was precipitated, and the cord suddenly snapped; how often hasty practitioners and ignorant midwives have detached it from the placenta, and yet without inversion — it may not be improperly assumed, that this fearful accident has been by far too universally attributed to mechanical violence. Perhaps a cause more explanatory may be found in the operation of some concealed and ill understood influence on the uterus itself immediately after labour, by which its functions shall be so deranged, that contraction and relaxation of different portions of its structure shall simultaneously occur.

It is scarcely necessary to urge the importance of vaginal examination, if there be a suspicion only of the accident. It may not be easy to ascertain its precise extent if the inversion be incomplete; but if there be hemorrhage, faintness, and fulness of the vagina, and no uterus to be felt above the pubes, there need be no doubt. Where the inversion is complete, the tumour will generally be larger than the uterus at the same time if it were in the pelvic cavity; as it contains very frequently portions of intestine, and the ovaries. Madame Boivin says, that in a case published by Stalpart Vanderwiel, the intestines were laid bare after death by an incision of the tumour, still in its situation

between the femora. Baudelocque has given a case somewhat similar, and Ruysch has figured a tumour, the volume of which is six inches in all directions. We learn from Levret, "that the sac formed by the inverted uterus and vagina, in the case of a person seventy years of age, was filled with a portion of the rectum, of the bladder, and of the small intestines, and with the fallopian tubes and ovaria."—(Diseases of the Uterus, p. 114.)

The *symptoms* attendant on recent inversion are much more dangerous than where the disease has existed long, although irreducible. The most alarming symptom is exhaustion, portending immediate dissolution; resembling very closely the frightful sinking following laceration. It cannot always be attributed to hemorrhage, as it very frequently occurs before there has been any flooding. In one of my cases the countenance was sunken and deathly; there was cold perspiration, a fluttering pulse, and vomiting, but no hemorrhage. Convulsions have been enumerated amongst the consequences by Siebold, although it is not improbable that the jactitation of approaching death might have led to the opinion. Of course the symptoms are not always equally alarming; the inversion may not be complete; or the patient may belong to that class who are not easily affected even by the gravest accidents. Hemorrhage is very dangerous, and Mr. Newnham says (Essay on Inversion, p. 86), "when the uterus has become inverted, immediate hemorrhage takes place, which is quickly followed by faintness, and a sense of fulness of the vagina, and in the greater number of instances, almost by immediate dissolution." In neither of my cases was there any flooding, but the exhaustion was great in both.

Terminations.—Where inversion is not early discovered and replaced, it generally proves fatal in one of two ways. Either the patient sinks suddenly from syncope and exhaustion, with or without hemorrhage; or, having escaped these more immediate dangers, she lives for a longer or a shorter time in great misery, the subject of constant irritation, frequent pain, and profuse mucous, purulent, or sanguineous discharges. There are, however, results more favourable than these; but they can only be regarded as rare exceptions to a general rule. Churchill says, "that if the patient do not sink from the

primary shock, and if no destructive process takes place in the tumour, it will, after a while, shrink very much in size, and the patient may suffer comparatively very little annoyance;" Lamotte (p. 383) mentions a woman who had inversion for more than thirty years; and Burns (p. 486) refers to a case by Dr. Cleghorn, "where the uterus slowly returned to its natural size. During twenty years this woman menstruated, and enjoyed tolerable health. The womb was smooth, moist, and only slightly painful." I believe there are no cases on record, at least I have been unable to find any, where the inverted organ has been attacked by malignant ulceration. It has been regarded as possible, that after many years' continuance, the disease might be spontaneously cured; and Dailliez has ingeniously attempted to explain this by supposing, that the fallopian tubes gradually pull up the detruded womb. One of his two cases is sanctioned by the authority of Baudelocque, and here the restoration occurred after eight years. It is difficult to accept such an explanation. Burns says, "if it be physically possible, it must at least be exceedingly rare."

It must not be supposed that hemorrhage is always present. In my two cases there was no flooding; and in Dr. Radford's five or six, there was scarcely any, and in others which might be adduced, the syncope and collapse were not the result of the loss of blood.

I have never had an opportunity of watching a case of chronic inversion; but I can easily imagine that Clarke is right in saying, that its sensibility will gradually diminish in consequence of the formation of a kind of epithelium on its surface: nor is it at all improbable, "after recovery from the state of exhaustion or nervous depression into which the patient was at first thrown, that the repeated hemorrhages and constant leucorrhœa will render her countenance pale and exsanguined, and subject her to various secondary symptoms, such as syncope, dropsical effusions, hectic," &c.

The following inferences may be drawn from what has been adduced:—

1. Although the uterus, when developed by pregnancy, has been frequently inverted by traction on the cord, or by sudden and forcible attempts to take away the placenta; yet, almost as

frequently the inversion has occurred spontaneously, entirely independently of any mechanical cause.*

* My own cases, Nos. 84, 85, and 86, one by Dr. Waller, Denman's Midwifery, p. 424, several of Dr. Radford's, Mr. Barker's in the Medical Gazette, April 5, 1844, and probably many others, confirm the fact of spontaneous inversion.

In Dr. Radford's (case 1), Mr. Wood saw the patient two hours after delivery, very much exhausted, with pallid countenance, and a cold surface. Upon examination, he found a large tumour (the inverted uterus), with the placenta attached. There was neither hemorrhage nor convulsions, and the midwife assured him, she had made no effort to remove the placenta. Mr. Wood detached it, and then without difficulty reduced the uterus. The patient recovered well.

In case 2, managed by Mr. Mann, the patient was suddenly seized, ten minutes after the birth of the child, with violent bearing-down pain, and on ocular investigation, the uterus was found to be inverted, having passed externally from the vagina with the placenta attached to it. In this instance the inversion was entirely spontaneous, as the funis had not been touched at the time it happened. The placenta was peeled off prior to the re-inversion. After carrying the womb through the os uteri, it suddenly started from the hand, as a piece of Indian rubber would, under similar circumstances. There was no hemorrhage, and the reduction was effected in a few seconds; but still the state of the patient was most alarming. The face became suddenly pale, and bedewed with a cold sweat; the pulse was rapid and unsteady; there was great prostration of strength, and a threatening of convulsions and death. Brandy and laudanum, hot flannels and friction restored her. She did well, and has since borne children.

Case 3 was one also of spontaneous inversion. The labour was propitious, and the placenta was naturally detached and expelled. There was no hemorrhage; but in 48 hours after parturition, when being called by the midwife, Dr. Radford examined, he found a tumour of considerable size, passing partly through the os externum; it was hard and resistent, externally it felt flaky, and was broader below than above. The os uteri was difficultly reached, and it tightly embraced the upper part of the tumour Attempts for two hours were made unsuccessfully to reinvert it. The health declined, and there were symptoms of peritonitis and retention of urine. After the subsidence of these symptoms, another, and an unsuccessful effort was made to reduce the tumour. She now suffered from sanguineous, purulent, and mucous vaginal discharges, producing great debility, diarrhœa, and aphthous affections of the mouth. These symptoms persisted for six months, and induced Dr. R. to think of extirpation. The uterus, however, gradually lessened, till it acquired the size of a large pear, the os uteri tightly girting the neck of the tumour during the whole progress of the case. The discharge became more purulent, and on examination at the end of seven months from delivery, no tumour could be detected; the remains of the os uteri could be felt, but no regular aperture, the upper part of the vagina forming a complete "cul de sac." She lived several years, and afterwards died of cholera.

Case 4 was Mr. Dick's. Dr. Radford detached the placenta prior to reduction, as had been done in cases 1 and 2. There was little hemorrhage. The uterus was compressed between the hands, and easily carried up, until the vagina was made tense. There was now more resistance, but by steady pressure it was passed through the os uteri, and the hand was retained in the uterine cavity till contraction took place, the

2. Inversion of the unimpregnated uterus is an exceedingly rare event; and, so far as our knowledge extends, has generally been produced by polypus, the development of the walls of the uterus being much less than what occurs in pregnancy. It has happened, indeed, where polypi have remained attached to the puerperal womb; and it might have been expected, from the expulsive actions they have excited, not only that their own protrusion would have occurred, but also inversion of the womb; that in these very examples, neither the one nor the other event has taken place, although the uterine structure must have been considerably relaxed and developed.*

wrist being firmly grasped by the os. The patient recovered without any interruption.

Case 5 was a tedious labour, owing to a contracted pelvis. Dr. Radford failed with the long forceps, and delivered by perforation. The uterus was inverted spontaneously, the cord not having been touched at the time. The fundus had partially passed through the os, forming a tumour, globular, large, hard, and resistent, with the placenta attached nearly in the centre. The hand was introduced into the vagina, and the tumour pushed upwards without much difficulty. The depending part of the tumour seemed to retire from the hand with considerable force. The placenta was then separated and removed. There was neither flooding, faintness, nor convulsion, and the patient recovered well.

In Case 6, the inversion was not discovered till several days after labour. There was much difficulty in passing urine, and the catheter was used. This was at the first visit in the evening, and then the uterine tumour was felt above the pubes. She was very low, and grew weaker for two or three days; and on examination a tumour was found low down in the vagina, protruding indeed through the os externum. Dr. Radford at first thought it was procidentia, and attempted to return it, but did not succeed. In consultation several days afterwards, the patient suffered much from attempts to reduce it; afterwards it was determined to be inversion, and the reduction was happily accomplished in about fifteen minutes. In this example the inversion was spontaneous, as there was no effort made to remove the placenta by pulling the funis.

* Dr. Oldham (Guy's Hospital Reports, April, 1844), in an interesting paper on polypus uteri co-existing with pregnancy, says, "that the action of the uterus, in its attempt to effect the descent of these growths, sometimes displaces and drags with it the walls of the uterus, to which it is attached, inverting it. This circumstance has been attributed to the weight of the polypus; but in three preparations which I have seen, showing this occurrence, the polypus has been by no means large, and seemed insufficient to produce such a result. It is rather to be attributed to the constant action of the womb; and I know of no instance where the residing intrinsic force is so well exemplified. A very interesting preparation of this kind was sent me by Mr. Duke, of Kennington. The poor woman, the subject of it, was between 50 and 60 years old, and a virgin. She had been suffering for some time from occasional hemorrhage, and afterwards from an offensive discharge. Her countenance

3. The rapid dissolution sometimes following the accident, cannot always be attributed to hemorrhage; for sudden sinking

was anxious; the pain in the uterus severe; and she was thought to be the subject of malignant disease. She refused to permit a local examination; and she died, worn out with the discharge and bleedings. In this instance, the right horn of the uterus is completely inverted. The polypus, which is the size of a small orange, has no proper pedicle; but it merges insensibly into the inverted portion of the womb. Its structure is firm, compact, fibrous, and very resistent when cut through. Its lower free surface, which has passed beyond the os, having freely dilated it, is sloughy and ulcerating; and on the right side is seen a large patch of a fungoid growth, which is imitated by one of about the same size and character on the contiguous surface of the expanded womb."

The following case occurred in St. Bartholomew's Hospital, and is sufficiently important to be recorded in Dr. Rigby's own words. The uterus apparently became suddenly inverted after he had tied a protruding polyp, and was removed by him with the polypus by a second ligature.

"*Jan.* 1844.—Mary Hill, aged 50, was admitted into St. Bartholomew's Hospital two and a half years ago, on account of a polypoid growth of about the size of a small orange, which projected into the vagina: the pedicle was thick, and appeared to spring from the upper part of the uterus; it was firm and fleshy to the feel, and did not present the ordinary character of a malignant growth. A ligature was passed rather low down upon the pedicle, and tightened without producing pain.

"During the night bearing-down pains came on, like those of labour, which expelled a large, irregularly-shaped, fleshy mass, at the end of which was the lobular growth which had been tied. The mass was as large as a calf's heart, and appeared to be of the same structure as the polypoid end, on which the ligature had been placed; it did not appear to be sensible; and the patient, with the exception of a dragging pain in the loins, like that of prolapsus uteri, felt rather relieved than otherwise by its expulsion. As the mass filled up the vagina so completely as to preclude examination by the finger to any distance, I could only ascertain that the extruded mass was attached by a thick, firm, fleshy pedicle, which went up far beyond my reach. Another ligature was applied low down the vagina, which also produced no pain, and was tightened every twelve hours. On the second or third day, profuse hemorrhage arose from the rupture of a considerable sized venous trunk, which had become very turgid: pressure and caustic were applied without success; and it was ultimately taken up and tied with a portion of the surrounding structure. One or two other vessels burst shortly afterwards; and these repeated attacks of hemorrhage much reduced her. It being summer time, the mass began to putrify rapidly; and in spite of chloride of lime, &c., the putrid portions had to be removed daily by the knife, to diminish the effluvia. The ligature and the remaining portion came away at about the fourteenth day. She regained her strength, and she became an outpatient.

"On examining her, about a month afterwards, Dr. Rigby found the vagina healthy, with a cicatrix-like spot, where the os uteri ought to have been; but evidently with no uterus above it: the canal was somewhat contracted at its upper extremity, forming a cul de sac."

The following examples I owe to Drs. Churchill and Nauche:—

"Bridget Mahon, aged 52, mother of ten children; her last confinement took place

and collapse succeeded by almost immediate death, have resulted from the inversion itself, at least there has been no loss of blood. Hence the vast importance of the exhibition of stimulants and of immediate reduction.

4. There are women, when the inversion has either not been discovered or could not be reduced, who survived many years, and a very small number who have suffered from permanent inversion comparatively slight inconvenience. The reverse of this statement, however, is almost universally true.

Diagnosis.—The recognition of complete inversion cannot be difficult, either in the puerperal or unimpregnated state. The volume of the tumour, the rough and bleeding surface, the absence of the os at its lower part, and the time of its occurrence, must prevent error. I can, however, understand that there may be considerable hesitation, where the inversion is incomplete, or where the fundus has scarcely passed through the os. Here doubt will arise as to the nature of the substance which

nine years ago; admitted into Jervis Street Hospital, June 5, 1835, under Surgeon Lynch; was seized about three year ago with whites, which continued for two years: she attributes the attack to excessive mental anxiety and fatigue.

"Her health, from the commencement, gradually declined, the debility and emaciation so great, that she was frequently obliged to remain in bed.

"Being seized with a severe fit of vomiting, she experienced a sensation as if something within her had given way, but did not make any examination at the time; about three days afterwards, was alarmed by the appearance of a tumour at the external parts, which she reduced by moderate pressure with the fingers. It remained so for three months, the discharge still continuing. One day she sat down to pass water, the tumour again appeared, but was reduced, and remained so for the next twelve months.

On the first of June, as she stepped over a potatoe furrow, the tumour was completely expelled, suspended between the thighs, in which state it still remains.

"Her labours were all easy, and during the whole course of the disease, she did not experience any difficulty in emptying either the bladder or rectum.

"The tumour consisted, at the lower part, of a large double-headed polypus, attached by a thick and very short pedicle to the fundus uteri, which was completely everted, and formed the upper portion of the protruded tumour."

A case is related by Leblanc, of a female who "was attacked with violent pains after suppression of the menses for three months, and to these succeeded a considerable hemorrhage, which was followed by the protrusion of a voluminous fleshy mass. Leblanc recognised a retroversion (inversion) of the uterus, after a minute examination;—he restored the uterus, and the woman recovered perfectly."

I have given these cases in a very abridged form, because they illustrate and confirm some very important points in the history and treatment of this serious malady. The profession is under great obligation to their able authors.

the finger touches within the uterine cavity. It may be a polypus, a sub-mucous, or a scirrhous tumour as well as inversion. Nor would doubt be entirely removed, if a cup-like or even a greater depression were felt at the fundus; for this might be produced by the dragging of an attached growth. Partial inversion, complicated with polypus, may perplex, but doubt will be removed when further descent occurs; as then the point of attachment of the inverting body will be seen, and the protrusion of the fundus through the os will also be evident. Most polypoid tumours are insensible; the lining membrane of the uterus generally possesses considerable sensibility, especially where the inversion is recent. But with all these diagnostic marks, there may still be hesitation; for even by able practitioners a polypus has been mistaken for inversion, and inversion for polypus. But repeated examination will correct such error, and lead to an accurate diagnosis.*

An inverted womb then may be distinguished from polypus by the circumstances attending its descent, occurring suddenly, during or soon after labour; by the tumour, which is large, less solid, and more compressible and elastic than polypus; by its external covering being rough, pale, and very unlike the smooth, shining, and coloured investment of most polypi. These latter growths, excepting only such as spring from the os and cervix, are encircled by the os uteri, which is not the case in complete inversion; and even in the examples of partial inversion, the finger cannot pass round the neck of the tumour and between it and the os uteri, as in polypus. Let it also be remembered, that the inverted womb is tender to the touch, independently even of pressure.

From prolapsus the distinction is easy: there is no os uteri inferiorly; from prolapse of the vagina—a rare affection to any extent—inversion may be distinguished by its size, rough, flocculent, and bleeding surface.

* M. Velpeau (Medical Times, Sep. 21st, 1844,) says, in reference to a case of supposed polypus, on which he operated, that it was only from the pain of the operation, that he felt certain it was inversion of the uterus and not polypus. Again he states, "about a year ago I operated on a woman, and was at first undecided whether I had removed a polypus or the uterus: but it was the former." The woman died from intense peritonitis;—at the autopsy the uterus was found to have been inverted by the dragging exercised on it by the polypus.

Treatment.—In *recent* inversion, the great object is to reduce the displaced organ; and even where the malady is *chronic*, it will remain to be determined whether reduction be practicable. If, happily, medical aid be early called for, reduction will not be difficult; but it is of the utmost consequence that it be attempted speedily. Denman thought it nearly impossible beyond four or five hours; and with his wonted candour he said, that in really chronic inversions, he had never succeeded in any one instance, though the trials were made with all the force he dare exert, and with whatever skill and ingenuity he possessed, so that the reposition of a uterus which had been long inverted, he concluded to be impossible.

Time, however, within moderate limits, if other circumstances are favourable, is a difficulty which may be overcome. Where the inversion is not complete, or being so, the tumour is not large; where the vagina, os externum and os uteri are not contracted, but soft and dilatable; and where the practitioner is persevering, skilful, and determined, reposition will often be effected in cases which would have been given up as hopeless by Denman, Hunter, and Ford.

Whether the placenta, if attached, should be separated prior to reduction, is a point on which there has been considerable difference of opinion. In neither of my cases, although I tried for some minutes, could I return the uterus with the placenta; but in neither did hemorrhage precede or follow its separation. Where the os is firmly contracted, there is little risk of bleeding, for the uterine vessels are effectually constricted at the upper part of the tumour. Reduction must be facilitated by the previous removal of the placenta, adhering, as it generally does, to the fundus, the part to be first returned. Denman cautiously remarks, "that where the placenta is partly separated, it would be proper to finish the separation before reduction is attempted; but if the placenta should wholly adhere, it will be better to replace the uterus before we endeavour to separate the placenta." This is not sound advice; for, where the placenta is thus partially separated, hemorrhage is either present or highly probable. Now if there has already been bleeding from the partial detachment of the viscus, and we know how rapid floodings sometimes are, it certainly would be very unsafe, by complet-

ing the detachment of the placenta, to uncover more of the uterine sinuses, and thus to increase the patient's danger. The better practice would be at once to attempt the reposition, trusting to uterine contraction being excited, so soon as the organ was returned into the pelvic cavity, this great point being additionally secured by the stimulus of the hand within. Denman urges as the ground of his advice, "that while we are separating the placenta, the cervix of the uterus is speedily contracting, and the difficulty of replacing it increasing, which is a far greater evil than a retained placenta." Where the cervix thus contracts, and goes on contracting, the risk of hemorrhage is slight, and the difficulty of reduction great; a difficulty which should not be increased, by permitting the placenta to augment the size of the already too bulky uterus.

We may then conclude, that where the protruded organ and its attached placenta do not together make up a large tumour, and where the os does not constrict its upper part, reduction of the whole may be at once attempted; where, however, these favourable conditions do not exist, it will be wiser to insure reposition by previous separation.

Nauche recommends, if the return of the inverted womb is seriously hindered by the firm contraction of the circular band of fibres forming the cervix, that it shall be divided by the knife or bistoury; a practice which can scarcely be necessary, if the cervix be free from organic disease.

At what period after inversion is reduction to be regarded as hopeless? It may have existed some days before being recognized; are we then to give up every attempt to reduce it? Certainly not. The utmost effort is justifiable, apart from violence and long continued pressure. The miserable condition of a woman with a permanently inverted womb, ought to prompt the employment of every measure favourable for its reduction; and Dr. Radford has justly observed, "that the womb has been reinverted after a considerable length of time, of six or seven hours, of seventeen hours, of twenty-four hours, of twenty-seven hours, of three days, of seven days, of eight days, and in one case after it had existed twelve weeks."

If the accident occurs while we are in the chamber, we need not delay the attempt at replacement by emptying the bladder

and rectum; but if several hours have elapsed, the evacuation of these viscera will be a necessary preliminary. If, owing to undue delay, the uterus and adjacent parts have become swollen and tender, and if the pulse be full and the patient feverish, bleeding, the exhibition of tartarized antimony, so as to produce nausea, not vomiting, and poppy and conium fomentations will, by diminishing the congestion of the uterus, reduce its size and faciliate its re-inversion.

Before commencing reduction, the back of the right hand should be thoroughly smeared with lard or oil, and the lowest portion of the tumour should then be firmly grasped, the fingers acting upon its upper part, and in this way returning the portion last protruded. For a time little or no progress may appear to be made, the womb only altering its position, but without diminution of bulk. Soon after, however, the tumour begins to enter the pelvic cavity, and the vagina is put upon the stretch; the effort being continued, and perhaps slightly increased, the tumour recedes still further, when at length it suddenly starts from the hand, passing quickly through the os (like a re-inverted Indian rubber bottle), and is thus in an instant replaced. The hand, whether the right or left, being now in the cavity of the uterus, should not be immediately withdrawn; for its presence excites contraction, and it should be expelled rather than taken away.

It has been advised to introduce a pessary after reduction, in order to maintain the replaced uterus; but I cannot see any good likely to arise from this practice. The pessary must, under such circumstances, be a large one; and although it may produce irritation and discharge, it is not easy to perceive how it should prevent sinking of the fundus. Of course a longer time than usual must be passed in bed or in the recumbent posture, and sudden movements of the body should be carefully avoided.

The inversion may however be irremediable, and we shall then have to determine what are the best palliative measures; and, if these be unavailing, whether extirpation must not be resorted to. Burns says (Midwifery, p. 488), "when the uterus cannot be replaced, we should at least return it into the vagina. We must palliate symptoms, apply gentle astringent lotions,

keep the patient easy and quiet, attend to the state of the bladder, support the strength, allay irritation by anodynes, and the troublesome bearing down by a proper pessary. A spring bandage is also useful. If inflammation come on, as it does usually, blood letting, antiphlogistic and aperient remedies will be required. After a time, by this treatment, the uterus contracts to its natural size, and the woman menstruates as usual, but generally the health is delicate. Sometimes the organ becomes scirrhous or gangrenous, and sloughs take place."

We have now abundant proof that the uterus may be safely removed, especially when it has been beyond the external parts for any length of time; and that its spontaneous separation may occur without either destroying life or involving it in serious risk.* The womb has been destroyed by gangrene, and yet the patient has recovered; and in Dr. Radford's and some other cases, it appears to have sloughed off without serious consequences.

Sir Charles Clarke, whilst approving of the operation in those cases where the comfort of life was destroyed and its continuance endangered by excessive discharges, still hesitated as to its propriety previously to the decline of menstruation; but the operation has been safely and successfully performed even at this age.

Extirpation, therefore, is not only justifiable, but necessary, especially if there be no unfavourable circumstances. Dr. Churchill thinks it should not be performed "if the uterus be affected with scirrhus or cancer." This, in my opinion, ought to be an additional inducement, if the affections are confined to the uterus itself, and have not implicated the vagina or external genitals.

Burns mentions a case from Schmucker's Surgical Essays (Art. XVII.), "where an appearance of gangrene, from strangulation, took place. The womb was scarified and the swelling quickly disappeared. The patient recovered."

The inverted uterus, being mistaken for the child's head, has been torn off with the crotchet. Petit of Dijon says, a surgeon by mistake applied a ligature round the inverted womb, and cured the woman; and Osiander relates a case where the

* In the Dublin Journal for September, 1837, Dr. J. C. Clarke has published a case in which the inverted uterus with the ovary separated shortly after delivery. The lacteal secretion was suddenly suppressed, and the sexual propensities ceased.

midwife pulled down the uterus and placenta, and cut them both away. The patient recovered, and was afterwards exhibited during every course of his lectures. Bartholin states, that the inverted womb was once torn away, and found under the bed after the death of the patient. In Recueil des Actes de la Société de Santé de Lyon, it is recorded that the uterus was mistaken for polypus, and the ligature applied. The mistake being discovered, it was instantly withdrawn, but the woman died in a few days.

The operation of removal consists in the application of a ligature round the highest part of the tumour, and its gradual tightening till it has entirely cut it through. Such a procedure cannot be free from risk, and the greatest care must be taken that nothing be included but the tumour. Frequent loosenings of the ligature may be necessary on account of pain; but these will only delay the progress, without interfering with the success of the measure. Silk, whipcord, silver wire, and fishing line have all been employed; but whipcord, probably more commonly than any other. Mr. Newnham's case is so clearly described, and its result so satisfactory, that I shall give an abstract of it.*

* Mrs. G—— was delivered on the 21st of January, 1817, of her first child, after a natural labour. The funis was remarkably short, the placenta adherent, and much hemorrhage succeeded its removal; retention of urine supervened, requiring the use of the catheter. The patient consulted Mr. Newnham early in April, "on account of a constant discharge from the vagina of a mucous character, accompanied with frequent hemorrhage." "On those days when she had the least discharge, it was still very considerable, and required seven or eight napkins in every 24 hours, in order to keep her comfortable; but the returns of active hemorrhage were increasingly frequent, and were induced almost by the slightest exertion." Her constitution was seriously injured, and her appearance was that of a person suffering from large hemorrhages. "On examination, I discovered, in the vagina, a tumour of considerable size, somewhat of a pyriform shape, larger at its base than at its superior extremity, but not attached by a very narrow neck—surrounded at its apex by the os uteri, between which and the tumour the finger could be readily passed without, discovering any immediate connexion, as far as I could ascertain, nearly insensible; and which had never occasioned pain." After a consultation with Mr. Oke, of Farnham, it was decided to be inversion of the uterus, and it was resolved that its removal by ligature should be attempted on Sunday morning, April 13, 1837. The ligature, of very strong silk, was applied "as high as possible, upon the neck of the tumour, taking care to avoid including any part of the os uteri, by carrying the silk within the orifice." A full dose of opium was given, and the patient complained only of a little uneasiness on the sides of the hypogastric region.

Burns and Windsor, after tightening the ligature to a certain degree, have immediately removed the tumour by the knife. Similar operations have been performed by Gooch, Granville, Chevalier, and others, and generally with favourable results; although it must not be supposed that these are always successful. Deleury's case proved fatal in a few days; and death ensued after operations of the same kind by Desault and Baudelocque. Boivin and Duges mention two fatal cases, where the inverted uterus was mistaken for polypus.

Case 84.

INVERSION OF UTERUS IMMEDIATELY AFTER LABOUR.

Mrs. G——ll, æt. 28, residing in Spitalfields, was delivered, July 20, 1828, of a healthy boy. In a few minutes afterwards she complained of a sudden and violent pain low down in the belly, and said "she was sure either that another child was coming, or that the whole inside was dropping through the passage." The midwife (Mrs. Carter), on examining, found a large tumour (the inverted uterus with the placenta adhering) between the thighs. She was naturally much alarmed, and a neighbouring practitioner having been sent for, requested my immediate attendance. I was there very soon, probably not more than three quarters of an hour after the occurrence. Her state was most alarming; the pulse was quick and compressible; she was bedewed with cold perspiration, and fatal collapse appeared rapidly approaching.

On the 14th and 15th, the ligature was tightened, which gave considerable pain, and in consequence it had to be loosened. The opiate was repeated, and some aperient medicine ordered. On the 17th, there was much pain and some tenderness on the left side of the hypogastric region with a quick pulse, which induced Mr. N. to remove the canula and leave the ligature quite loose.

On the 18th, as all unpleasant symptoms had disappeared, the ligature was tightened, and an opiate enema given. From this day till the 6th of May the ligature was daily tightened, the pain continued until the 30th of April, after which it gradually diminished. On the 26th of April and 2nd of May, the patient became excessively irritable, but this subsided. The discharge was fetid after the 24th, and in considerable quantity after the 29th. "When the ligature was tightened, this evening (May 6th), the tumour became detached, and I found, to my no small satisfaction, that it was, as I believed, an inverted uterus." Essay, p. 31, et seq.—(*Diseases of Females, by Churchill.*)

There had been no hemorrhage, and the inversion was entirely spontaneous. Brandy, only slightly diluted, was instantly given; indeed, in small quantities, it had been exhibited before my arrival; and while this was being done, I grasped the tumour and tried to return it; but I could not reduce any part of it within the pelvic cavity, the mass was so large. At once, therefore, as she had not had hemorrhage, I detached the placenta, peeling it off without any difficulty. There was still no bleeding of any consequence. Immediately afterwards I made another attempt, and was pleased to find the uterus passing slowly upwards. My right hand entered the vagina as it was being re-inverted, and the last portion of the uterus passed through the os almost with a jerk. I kept my hand in the cavity for several minutes, till firm contraction compelled its withdrawal. For two hours there was only a very gradual improvement; but the brandy seemed at length to have some effect, although doubtless the restoration of her sunken power was principally attributable to the reduction. She recovered slowly, but without any deviation from the usual course of convalescence.

Case 85.

SPONTANEOUS INVERSION OF THE UTERUS WITHOUT HEMORRHAGE.

The subject of the only other case I have seen was a poor woman, Mrs. C., residing in one of the courts leading from Fenchurch Street. She was nearly 40 years of age, had borne many children, and was compelled to work very hard at glove washing. I had seen her several times in her former labours, and on one occasion, she was all but dead from hemorrhage consequent on the expulsion of an ovum of only eight weeks. (The preparation is in St. Thomas's Hospital Museum.) I saw her a very few minutes after the inversion had taken place. It was entirely spontaneous, for a friend who was with her during the labour assured me, that the midwife did not even touch the cord. The child was pushed into the world very quickly; and before the nurse had left the bedside three minutes, Mrs. C. seemed to have a sudden but momentary pain, and exclaimed, "that something else was coming, and that she should die." The discovery was immediately made, that the afterbirth, as it was supposed, had been expelled; but as she was deathly pale and faint, they ran to my house, begging that I would see her instantly. I did so, and found the uterus completely inverted, with the

placenta adherent; but she had not lost any blood. The pulse was rapid; she was pale and cold, and exceedingly alarmed; and if she had been vomiting, and I had not known that the womb was inverted, I should have had no doubt that laceration had taken place. Strong gin and water was given, and an immediate attempt was made at reduction. I was fearful, from my knowledge of her, that even slight hemorrhage would sink her, and therefore I did not remove the placenta previously, but I was entirely foiled; and although I used considerable effort for more than ten minutes, I could not return the smallest part of the tumour. Without any hesitation, therefore, I peeled off the placenta, during which there was very little blood lost; and then, but not without a good deal of difficulty, the uterus was returned. The syncope and quick breathing continued for more than an hour after the reduction; and it was not till sulphuric ether, ammonia, and brandy had been largely given, that she entirely rallied. It was more than three weeks ere she had sufficiently recovered to resume her usual avocations.

Case 86.

INVERSION OF UTERUS IMMEDIATELY FATAL FROM HEMORRHAGE.

COMMUNICATED BY DR. LEVER.

Mrs. ——, æt. 36, the mother of several children, and delicate, was confined, after a quick labour, of a living child. In a few minutes, without any traction on the cord, the patient complained of sudden pain, and said something more had been expelled. The surgeon immediately passed his hand above the pubes, but could not detect the womb. An attempt to make vaginal examination satisfied him, that the uterus was completely inverted. Without the loss of a moment he tried to return it without previous separation of the placenta, but failed. He now peeled off the after-birth; but as there had been some blood lost already, owing to its partial detachment, the entire separation was attended with such fearful flooding, that she sunk almost immediately.

ANTEVERSION AND ANTEFLEXION OF THE UTERUS.

THERE is no doubt in the profession about the existence of procidentia, inversion, and retroversion; but there are many well informed practitioners who question whether the uterus is ever anteverted, anteflexed, or retroflexed.* It is true these states sometimes require nice diagnosis; that they are exceedingly uncommon; that in slight and even more marked degree, they may exist undetected; that they are rarely productive of serious symptoms; and that perhaps in few instances can they be said to have caused death—but still they exist. It is therefore important that they should be fully described.

In *anteversion* the uterus is placed transversely in the pelvic cavity, the fundus lying forwards, directly behind the bladder, pressing its posterior against its anterior wall, the cervix being tilted upwards and backwards towards the sacrum. In this stage there is no flexion; but where the disease has been unsuspected and its cure consequently unattempted, the anteversion may be so complete, that the uterus will be flexed on itself, the posterior surface of the fundus looking forwards, the anterior downwards, and the cervix tilted upwards towards the junction of the sacrum and spinal column.

In *anteflexion*, the body of the uterus is bent forward so completely, that its posterior wall becomes antero-superior, lying immediately behind the symphisis pubis; but the cervix retains its position in the centre of the vagina, entirely unchanged.† Thus the distinction between the two displacements is, that in anteversion there is not of necessity any flexion of the uterus, although it may occur, and the cervix suffers decided change of position; while in anteflexion, the uterus is always bent more or less completely upon itself, and the cervix retains its natural situation.

These affections can only happen while the uterus is nearly of the natural size; if, therefore, they take place at the begin-

* M. Lisfranc affirms "*from hundreds, he might say, thousands of observations*" ! ! that anteversion is infinitely more frequent than retroversion.

† Vide Madame Boivin's Atlas, plate 9, fig. 6.

ning of pregnancy, its progress and completion will probably rectify the displacement. The point of flexion is usually a little above the union of the cervix with the body of the uterus and the degree of curvature determines the slightness or severity of the affection. In Boivin's case, the uterus was completely doubled on itself. There is often great rigidity at the seat of the flexion; and the consequences of chronic inflammation, such as thickening and other changes of structure, are sometimes recognised. In the only well marked case that has come under my observation, where the patient was pregnant, I could not easily move the uterus upon its cervix. Probably the bladder, which is so frequently allowed to be full in women, may be a barrier against the frequent occurrence of this affection. Anteversion may prevent conception from displacement of the os and cervix; but this is by no means a frequent result. "Pregnancy," Madame Boivin thinks, "may, in its first period, dispose to anteflexion; in its later periods it may, by the changes in the state and size of the uterus, lead to a cure; labour will be apt to be followed by relapse, which must be prevented by frictions on the hypogastrium, and a strict attention to the condition of the bladder and rectum."

Anteversion with flexion may sometimes be congenital; at least it has been met with in young and unmarried persons. Such cases ought, perhaps, to be attributed to rapid and disproportionate growth of the womb about the time of puberty.

Causes.—Age does not seem to have much influence, as these affections have been observed at all periods, even from childhood to advanced life. Lymphatic, meagre persons are, as might be supposed, particularly liable. Parturition is not an active cause, as married women who have never borne children, have been the subjects of both. Duges gives a case, in which the fundus fell between the adjacent walls of the vagina and bladder in the twelfth week of pregnancy. Great breadth of the vagina may be regarded as predisposing to the affection.

In many of the recorded cases there has been menstrual disorder, leading to congestion; but it will often be difficult to determine whether engorgement precedes anteversion or follows it.

The direct causes, those producing immediate displacement, are falls, violent and sudden muscular efforts, straining at motion, or in the evacuation of the bladder. Slow or gradual anteversion and anteflexion may result from hypertrophy of the anterior parietes of the organ, not a very uncommon event, owing to the greater exposure to injury of this part than the posterior wall; tumours at the fundus; pelvic growths favourably situated for pushing the organ forwards; and possibly, large abdominal tumours.

Symptoms and Diagnosis.—If the displacement has been sudden, the accession of symptoms will be marked; but where it has been slowly effected, the inconveniences will come on so gradually, that it will be nearly impossible to tell the precise time of their origin. A fall from a steep stair (case 87), the bowels being excessively constipated, anteverted the womb, which was at once recognised by a vaginal examination. The most constant and wearing symptom is a sense of fulness and weight low down behind the pubes, "a bearing-down," in popular language, accompanied by weight and pain about the perineum and in the rectum; a frequent desire to pass water and difficulty in doing so. There are also pains in the back, groins, and thighs; but in the case already mentioned, the greatest suffering arose from pressure on the bladder. Exertion, the erect posture, walking or riding, and relieving the bowels aggravate, while the recumbent posture alleviates the distress.

It must not, however, be supposed, that these evils are always present, or that when they exist, it is always in aggravated degree. In Dr. Walshe's case, defecation was unusually difficult, but there was no pain in passing the water. Lagrand and Rayer in two instances found the contents of the bladder and rectum were excreted with facility. The severity of the symptoms will a good deal depend on the completeness of the displacement, and on the degree of flexion, although this is not always the case; for in some recorded examples, where the flexion was great, and the cervix not at all displaced, there was great difficulty in defecation, but none in relieving the bladder.

Leucorrhœa is a usual accompaniment, nor are disordered menstruation and hemorrhagic discharges uncommon. Reten-

tion of the catamenia may be regarded as one of the rare results.

The foregoing symptoms are indicative, without being confirmatory either of anteversion or anteflexion; but if on examining by the vagina, the cervix is difficultly reached, and with its orifice close to the sacrum; and if a firm tumour is found at the anterior wall of the vagina, filling up the pelvis and pressing on the lower part of the bladder—such evidence will leave no doubt. Examination by the rectum may occasionally help us to reach the cervix, when we cannot effect this by the vagina.

If these points are clearly made out, the diagnosis is established; and it may be aided by introducing a metallic bougie into the bladder, when the solid uterus will be impinged upon, and of course the sound will be different from that produced by striking a calculus. Levret, however, was once deceived, and the operation for lithotomy was unfortunately performed, the mistake not being discovered till after the death of the patient.

From retroversion these displacements may be distinguished by the fundus being anterior and the cervix behind.

From pelvic and ovarian tumours, by the history of the cases, and by the presence, in these latter affections, of the os uteri in its proper place.

Prognosis.—If anteversion and anteflexion are uncommon diseases, they are happily seldom fatal ones. There does not appear to have been any instance as yet recorded, where, without some complication with other disease, death has ensued.

Treatment.—It is not difficult to suppose that the slighter cases may be cured almost spontaneously, at least if aided by the filling of the bladder and the emptying of the rectum. In my own case, the advance of pregnancy led to reposition, and that without any thing beyond the simplest treatment. If congestion or chronic deposit have resulted from metritis, appropriate antiphlogistic treatment may assist the uterus to resume its healthy position. If these evils do not exist, and the patient be irritable, the mildest means must be tried, such as gentle aperients, salines, and the recumbent posture.

If, however, manual interposition become necessary, there

may be serious difficulty. The patient should be placed on her back, with the pelvis elevated and her knees raised, and while, by one finger in the vagina, the cervix is hooked and drawn down to its proper place, with the other hand gentle, but persevering pressure, should be made on the fundus in the hypogastric region.

If the taxis so employed is unavailing—if the cervix cannot be reached in this way—the instrument invented by Boivin, which is in fact one branch of the forceps, about six inches long and curved in the form of an italic *f*, may be employed. The blade portion, with its convexity towards the sacrum, is to be passed up the vagina till the cervix can be seized in its fenestra. If this can be done, its depression may be regarded as almost certain.

The recumbent posture must be strictly observed for some time, and any exertion requiring deviation from this posture, must be avoided; defecation should be rendered as easy as possible. If there be leucorrhœa or menorrhagic discharges, astringent injections should be used. Pessaries have been recommended, it being supposed that by acting on the vagina they will steady the womb; but it is doubtful whether they can do any good. In anteflexion, where the cervix is already centrally placed in the vagina, they can effect nothing; and in anteversion, the lying down and the avoidance of effort are the only efficient means.

Dr. Walshe alludes to the complication of retention of the catamenia, and says, "it was boldly and successfully combatted by Gauthier, by making an incision about two inches long, in the antero-inferior part of the uterus, from right to left. The operation was followed by the evacuation of four pints of menstrual fluid, and instant relief of several bad symptoms that had arisen. The catamenia regularly passed afterwards through the artificial opening, and the same route was taken (so we are allowed to suppose at least) by three infants, of whom the patient was afterwards safely delivered."

Case 87.

ANTEVERSION AND ANTEFLEXION TERMINATING FATALLY.

COMMUNICATED BY DR. WALSHE.

This case, says Dr. W., I had an opportunity of observing some years past, in the wards of M. Louis; it is of some value, as there are only three or four, I believe, on record, in which the state of the uterus was established by dissection; and a still less number, in which the observation of the symptoms was followed by post-mortem examination.

V. E., ætat 38, admitted December 16th, examined January 9th.

Previous State.—Has worked for last three years as charwoman, was before that portress and housemaid. Catamenia appeared at the age of 16, without pain, perfectly regular from the outset in their return; lasted four or five days, without clots, swelling of the breasts, or cephalalgia. Has had six children, first at the age of 17, last at the age of 23; no change in menses after confinements; no leucorrhœa in their intervals. Has been subject for the last five years to pain near the upper border of the sacrum, after the least fatigue. Her food has been poor in quality, she has not for years been in the habit of eating meat; considers herself ill since Nov. 10, previous to which time she had no sensation of bearing down at the anus, pain in groins, nor white discharge; for a month before, however, the sacral pain had increased, and she had been only very slightly unwell on the two preceding occasions. On that day, while employed in washing, a sudden flow of blood, with large clots, took place per vaginam, without her having made any particular effort. Feeling no pain she continued her work, and has since then had a persistent red discharge, which, for the first month, daily equalled the quantity lost in the same time during catamenia, and has latterly diminished. Inguinal pain at first considerable, now less; for last fifteen days suffers from occasional pricking pain in left thigh; has lost half her former flesh; scarcely ate any thing during the first month.

Present State.—Skin dull, but not straw-coloured; decubitus right lateral, as it has been for the last two months; tongue moist, whitish; abdomen indolent and lax, except towards pubis and left groin; the sacral pain still exists, but to a less degree than before; has always been subject to constipation, but defecation unusually difficult for the last two months, and increasingly so; urine in proportion to drink, the

patient makes no complaint of difficulty in passing it; no thoracic symptom; pulse 76, small, regular; inodorous vaginal discharge, equalling in quantity about an eighth of what is lost daily during menses. *By speculum.*—Nothing remarkable in state of vagina; impossible to see orifice of uterus. *Examination with finger.*—Natural temperature of vagina; neck of uterus $2\frac{1}{2}$ inches from vulva, broad, unusually hard, and turned backwards; anteriorly towards the pubis a tumour is felt, formed by the body of the organ; on pushing it upwards depression of the neck follows, the patient being in the recumbent position,

Infusion of cocquelicot, for drink.
Gum draught, with ratany root, in powder, gr. xxiv.
Gummy extract of opium, gr. j. in pill.
Vaginal injection, with decoction of morel and poppy-heads,
Quarter diet.

Jan. 20. Omit the opiate.

Balsam of copaiba, gtt. xx., made into pills.

28. Discharge increased for last six days; the general symptoms are, however, much improved; colour comparatively fresh; no pain; appetite as in health; sleep good; she states, that were it not for the discharge she should consider herself perfectly well. Omit copaiba; common diet.

Feb. 12. A new train of symptoms appeared; abdomen greatly swelled, and very tender; violent pain in hypogastrium, first slightly felt on the 9th; bladder not distended; mictions natural; frequent vomiting since yesterday of greenish matter: this is on the increase; no stool for four last days; tongue pale, moist; no cough; pulse 112, regular, very small; discharge almost totally ceased; decubitus dorsal, knees raised; features contracted, and expressive of extreme suffering.

Fifteen leeches to hypogastrium.
Enema of sulphate of soda, ℥j.
Solution of tartarous syrup, for drink.

13. Vomited almost all her drink yesterday, but nothing since three, A.M.; abdominal tension increased; tympanitis to an extreme degree; the least percussion causes torture; hypogastric pain unrelieved; no typhoid or other maculæ on skin; tongue white, moist, no redness of borders; considerable thirst: enema has not been voided; pulse 126, regular, fuller than yesterday; no anormal sound at precordial region; respiratory murmur distinct there; pulsation of heart feeble; no sound

in carotids; respiration 54, deep; auscultation gives normal results; voice a mere whisper; decubitus dorsal, as before.

Repeat enema.

Extract of digitalis, gr. ij. in pills.

14. Tongue as before; continual nausea; vomited twice; two stools, consisting of enemata only; urine natural; pulse 110, regular, pretty full; respiration 48; abdominal parietes almost motionless; tendency to somnolence; emaciation visible; slight discharge per vaginam; skin dry, scarcely hotter than natural.

Bottle of Seltzer water.

Mercurial ointment, ℥j. To be rubbed into the abdomen and upper part of the thighs, in half-drachm doses, every hour.

Omit the digitalis.

Expired at nine, P.M.

Autopsy 36 hours after death; weather mild and damp.

Exterior.—Considerable emaciation; muscles well coloured; slight lividity of sides of abdomen; very little cadaveric rigidity.

Abdomen.—Diaphragm raised to level of fifth intercostal space; the tympanitis is found to have been produced by distention of small and large intestine, particularly of the former; convolutions of small intestine glued together by greenish false membrane, but no fluid between them; left colon vertical, brick-coloured, surface mammilated, and covered with a layer of viscid semi-fluid matter; transverse colon directed obliquely downwards to left iliac spine, whence it ascends to diaphragm, and then redescends, being bound down in this position by false membranes; sigmoid flexure adherent inferiorly; on breaking up the adhesions a quantity of dull red-coloured fluid is discovered, and the posterior surface of the intestine is perfectly black and covered with dark-coloured detritus; in the cul de sac between uterus and rectum is a clot of blood as large as an egg, surface black, not distinctly fibrinous; to account for it there appear to be some vessels open; here, too, are several loculi, with pseudo-membranous walls, of hard white-of-egg consistence, and containing putrid clots; these being removed, a black layer of membrane is found adherent to the peritoneum, which is healthy underneath. *Stomach.*—Peritoneal surface brick-red colour; mucous membrane of natural consistence everywhere, rather thin in great cul de sac, and on posterior surface; non-mammilated, no mucus on its surface; sub-mucous tissue of great tuberosity infiltrated with reddish serum. *Small intestine.*—Walls, notwithstanding their disten-

tion, thicker than in normal state; mucous membrane pale or greenish throughout, consistence and thickness normal. *Large intestine* contains a quantity of pultaceous greenish matter, especially rectum and sigmoid flexure; very wide all the way to anus; mucous membrane natural. *Kidneys, pancreas,* and *spleen* healthy. *Liver* covered with yellow pseudo-membrane, one line thick and fragile; cohesion of substance somewhat less than natural. *Uterus* flexed on itself at an obtuse angle at the union of its body and neck, in such manner that the fundus, concealed by the bladder, is inclined forwards and downwards, while the neck is inclined backwards to the sacrum, the posterior surface of the body being antero-superior. There is a slight lateral obliquity in its direction, the neck being turned somewhat to the right of the middle line, the fundus towards the left crural arch. The body of the organ, as well as the neck, is hypertrophous; their substance is of a greyish hue and hardened, firm, and resisting throughout, except at the union of those parts where there is a band of the organ, flattened from before to behind, extremely soft, flabby, and yielding, and corresponding exactly to the angle of flexion. The anterior and posterior walls of the body each measure precisely an inch in thickness; the enlargement of the fundus is in proportion to that of the rest of the organ; the neck is $2\frac{1}{2}$ inches wide, its orifice gaping, borders greenish in colour; cavity in no way remarkable. *Ovaries.—Right:* enlarged and divided into cells containing a consistent puriform fluid. *Left:* also divided into loculi, filled with a citron-coloured serous fluid; a small reddish clot in one of them. *Vagina* $5\frac{1}{2}$ inches wide; walls three lines thick, softened at its upper part. *Bladder* much distended; internal surface irregularly red; submucous tissue of part corresponding to uterus infiltrated with reddish serum.

Thorax.—Pericardium contains ℥ij of straw-coloured serosity. *Heart* of ordinary size; black firm coagula in right ventricle; walls one line thick; pulmonary valves livid-coloured; left ventricle contains two small blackish clots; aortic valves pale. *Aorta* pale, yet it contains some fluid blood. *Pulmonary artery* livid. *Lungs.—Left:* upper lobe perfectly healthy; slight engorgement and diminished consistence of inferior lobe; a few old adhesions posteriorly. *Right:* inferior and middle lobes more engorged than on left side; pleuritic adhesions; bronchi of lower lobe rather livid; mucous membrane gives strips eight lines long; no fluid in either pleura.

Case 88.

ANTEFLEXION IN EARLY PREGNANCY.

Mrs. —— æt. 33, the wife of a medical man, in the first month of pregnancy, fell from a steep stair, the bowels at the time being exceedingly constipated. There was no hemorrhage, but syncope continued nearly an hour. For six or seven weeks Mrs. —— was never entirely free from a heavy bearing-down sensation in front, rendering micturition frequent and painful; but defecation was not at all impeded. She was irritable and feverish, and it was thought by her husband that the womb was retroverted. My first visit was at the end of the third month, and on examining I found the cervix uteri in its natural position, but not so the fundus, which, in the form of a rounded and solid tumour, was lying forward between the anterior wall of the vagina and the bladder. She complained of pressure at the part where the body was curved. The cervix was elongated, fuller, and harder than natural, and the os open. I placed the fingers of my left hand behind the pubis, endeavouring in this way to raise the fundus, while, with the forefinger of my right hand, I tried to draw the cervix downwards and forwards. I did not succeed, and no farther manual efforts were made. An examination at the six month satisfied her husband that the curvature had nearly disappeared; and although she was not, during the pregnancy, ever quite free from suffering, she was delivered without any difficulty, and recovered remarkably well. Care was taken that she observed the recumbent posture for a month. For these remarks I am indebted to her husband, who is largely engaged in midwifery practice.

RETROVERSIO UTERI.

History.—Retroversion is an alarming, but a rare displacement, and when fully established, the altered position of the uterus is most striking. The fundus is turned downwards and backwards into the hollow of the sacrum; while the os and cervix are carried upwards and forwards, impinging on or lying above the symphisis pubis. It is the opposite of anteversion, and demands much more prompt attention; for although at first, neither the function nor structure of the organ are affected,

if it be overlooked or neglected, it will not be long ere extreme irritation and danger ensue.

The disease was not unknown in early times; as Œtius, Rod: a Castro, Mauriceau, and La Motte described it, without affording an explanation of its nature. For our present more accurate views, we are indebted to Desgranges and Gregoire in France, and to our own distinguished countryman Dr. William Hunter. The former authors wrote in 1715 and 1746, the latter in 1754; and as the abridged account of the first English case has become an interesting matter of medical history, I shall insert in a note Dr. Gooch's narrative of it as published in his lectures.*

* "A poor woman in London, about four months advanced in pregnancy, was suddenly seized with retention of urine. She sent for Mr. Walter Wall, a medical practitioner, who passed the catheter and relieved her; but the impediment continued, and it being again necessary to employ the catheter, Mr. Wall, on this occasion, made an attentive examination, with a view to discover the nature of the obstruction. He passed his finger up the vagina, the course of which, instead of being upwards and backwards towards the sacrum, was upwards and forwards against the pubes. He could not feel the cervix uteri, but he discovered a tumour at the posterior part of the vagina, which, on the introduction of the finger into the rectum, was found to be between the gut and the vagina. The lower portion of this tumour being projected towards the pubes, the impediment to the evacuation of the bladder was supposed to be occasioned by its pressure on the urethra. Mr. Wall finding the case of his patient corresponded with the description of retroversion of the uterus as given by M. Gregoire, endeavoured to replace the uterus, but without success. He then sent for Dr. William Hunter, who, upon examination, found the relative state of the parts to be that which has been just described. On raising the tumour, the urine dribbled away; Dr. Hunter endeavoured to restore the uterus to its natural situation, but failed; there was obstinate constipation, and in a few days the patient died. On examination after death, the bladder was found distended, the cervix uteri was turned upwards and forwards against the symphysis pubis, and the fundus had fallen downwards and backwards into the hollow of the sacrum; where it was so impacted as to be with difficulty dislodged. This case being the first of the kind which had been noticed in this country, excited great interest. Dr. Hunter gave a public lecture on the occasion over the body of the patient, in which he recommended puncturing the membranes in order to procure abortion—a project which has never, happily, been carried into effect. Another case of a similar kind occurred shortly afterwards; the patient could neither pass urine nor fæces. Attempts were made to empty the bladder by means of the catheter, but without success: it was proposed to puncture the bladder above the pubes; the patient would not submit to this operation. At length she felt something burst, which proved to be the bladder, and in a few hours afterwards she died. The displacement of the uterus was found, after death, to be similar to that just described."—*Gooch's Lectures, by Skinner, p.* 117.

Causes.—It is almost entirely a disease of early pregnancy, and its most frequent cause is a distended bladder, which either gradually or under the influence of some sudden impulse, as cough, straining to void the urine, vomiting or a fall, pushes the uterus downwards and backwards, turning it, as it were, "topsy-turvy" into the hollow of the sacrum. A large pelvis, encroachment on the antero-posterior diameter of the brim by the sacral promontory, prolapse of the posterior wall of the vagina, early pregnancy, moles, pediculated and scirrhous tumours, affecting particularly the posterior wall of the uterus, and the condition of the womb after labour, have all been regarded as predisposing causes. The published cases, however, are nearly silent on any other cause than pregnancy in connection with a loaded bladder. Pearson and Dr. Blundell have seen the disease resulting from scirrhus and an enlarged ovary;* and Dr. Churchill states, "that he has known retroversion happen the first day of a menstrual period, when the weight of the uterus was increased by the afflux of blood." These practitioners mention such examples, as the consequence of rare causes. Not so M. Lisfranc; he says (p. 432), that "hypertrophy of the posterior part of the uterus is the most frequent cause;" an assertion which, were it true, would establish a new fact (the great wish, probably of

* The following case by Dr. Blundell, p. 6, is too instructive and interesting, not to be inserted:—

"A lady, labouring under ovarian dropsy, was recommended to take a ride in an open carriage every day, for the improvement of her health, taking the air as much as might be without occasioning much fatigue. In one of these excursions, the vehicle chanced to be turned over, and she was thrown out with violence, her abdomen striking, with great force, against a stone that was lying by the road side. On her return home, a very copious secretion from the kidneys ensued, with great abdominal pain, when, in the course of a few days, she recovered, and found herself entirely liberated from the dropsy. Some time afterward she entered into the married state, and died with an irreducible retroversion of the uterus, about the fourth month. Inspection was made, when it appeared clearly, that in consequence of the fall, there had been a rupture of the ovarian cyst, and a flow of water into the peritoneal sac, whence it was absorbed and effused by the kidneys, the remains of the cyst falling on the uterus, and carrying it down below the promontory of the sacrum, which becoming retroverted, was fixed by inflammatory adhesion in the retroverted position. While this unhappy lady remained unmarried, she felt but little inconvenience, but marrying, and the enlargement of the uterus taking place, the womb, in consequence of adhesion, not admitting of replacement, a fatal pressure of the contiguous parts ensued."

its author), viz., that retroversion is for the most part an affection of the unimpregnated womb; for certainly pregnancy does not generally occur in connection with such a degree of hypertrophy as would cause retroversion. But M. Lisfranc's statements are so often erroneous, that they rarely obtain any great respect or influence. May it not, however, have happened in some of his "hundreds of cases," that he has mistaken the altered and fixed position of the womb produced by general hypertrophy or scirrhus for, retroversion. I have been long in the habit, of observing uterine organic disease; and yet but a very few of the extraordinary things seen so frequently by M. Lisfranc have occurred to me. Nevertheless, his writings, the reader making the fullest allowance for his neglect of accuracy, deserve and will repay the most attentive perusal.

Symptoms.—Retroversion is not at the moment of its occurrence, except it happen very suddenly, indicated by any marked change in the patient's state or feelings; she generally remains ignorant of the accident till an attempt is made to relieve the bladder. Failing in this she becomes alarmed, and uses straining efforts, but is unable to accomplish the act. The distension and the inability continue to increase; for the renal secretion is not checked, and in twenty-four hours, if the catheter be not used, the suffering will be extreme.

Another prominent symptom is pressure on the rectum, accompanied with a sense of weight and closure, so that the gut is difficultly, if at all emptied. Some watery stools and flatus pass, but no solid feculent matter. If some time elapse before medical aid is obtained, the state of the patient will be truly distressing. She may be advanced nearly four months in pregnancy; she has a painfully distended bladder, with inability to void its contents; and the rectum so obstructed by the uterine tumour, that its functions also are almost entirely suppressed.

It cannot be supposed that such a state will continue long without the accession of formidable symptoms. As vesical distension is, at the commencement of the disease, the most distressing and prominent symptom, the catheter ought to be introduced once at least, if not twice, in the twenty-four hours; nor must it be forgotten, that although in ordinary cases the female catheter exceeds the urethra in length, in retro-

version, this canal is so elongated by being carried upwards and forwards towards the symphisis pubis, that the common instrument scarcely reaches, and cannot enter the bladder. Thus a patient may be left, after supposed introduction, with the viscus enormously distended. Under these circumstances, an elastic male catheter must be used. The fundus of the bladder in neglected cases of retroversion, forms a prominent and painful tumour, extending, when very full, not only just above the pubes, but nearly to the umbilicus, and reaching almost from one ilium to the other. In an hospital patient (case 89), the bladder was so loaded, containing eleven pints of ammoniacal urine, that it occupied the whole of the abdominal cavity. Even where it is carefully emptied, there will often be an involuntary oozing of urine, which, by passing over the parts, keeps them uncomfortably wet, and produces excoriation.

But the bladder is not the only organ whose functions are interfered with; the rectum is so pressed upon by the fundus of the uterus, that constipation, and sometimes almost an entire suppression of stools, ensue. These suspensions of the functions of the bladder and intestines, are not only painful in themselves, but they aggravate the retroversion by the pressure of the accumulated urine and fæces above the displaced organ, forcing its fundus lower in the hollow of the sacrum, and giving to its cervix a still more elevated position above the symphisis.

Nausea and vomiting are frequently present, and the feeling of painful fulness in the pelvis, dragging from the loins, and expulsive pains like labour, increase the patient's sufferings. There is soon loss of appetite, stomachic and abdominal pain, fever with a quick pulse, hot skin and great restlessness. The action of the intestines is said to be sometimes, although rarely, inverted, stercoraceous vomiting being the result; and Dr. Blundell possesses a preparation which shows the retroversion of uterus with disruption of the bladder.*

* "The uterus is as large as a child's head; above the retroverted uterus is the bladder, which has been ruptured. It is remarkable, that in this rupture of the bladder, which has arisen from its over-distension, it is not the front, that surface of it I mean, which has no peritoneal covering, but it is the posterior surface, invested by the peritoneum, the back part of the body, which is the region of the rent. Now it was this which first led me to propose, that where a rupture of the bladder takes

Capuron (Mal. des Femmes, p. 286), remarks, "that if just so much urine escape as will prevent this frightful termination, the patient's life may be compromised by the fever, or ultimately by inflammation of the uterus and gangrene."

Diagnosis.—Sudden retention of urine is a valuable diagnostic symptom; but it is not conclusive. It is by examination only, that this formidable disease can be distinctly made out.

The vesical tumour has been to my own knowledge mistaken for ascites; but a vaginal examination and the catheter would have prevented such an error.

There is more excuse if the pelvic tumour were mistaken for an ovarian enlargement; but the suddenness of the accident, and the peculiar form and situation of the tumour, will generally preclude even this error.*

It cannot be difficult to distinguish a retroverted uterus from tumours growing in the recto-vaginal septum. Its form, its connection anteriorly with the cervix, and the location of this latter part within the vagina, will prevent mistake.

place in any case, but especially in a retroversion of the uterus, we should not give the patient up for lost; for if there is reason to believe that the bladder is burst into the peritoneal sac, we might make an opening into the peritoneum—say above the symphysis pubis, by which we might discharge the urine, and then injecting distilled water of the temperature of 98°, we might wash out the viscera, so, perhaps, as to prevent a general peritonitis; this done, we might draw the bladder up to the opening in the abdomen, and close the rent by ligature. This operation I have performed on several rabbits; in one or two experiments I brought the bladder out, tied it up, and took away about one quarter of it, viz., the whole of the fundus, and the animal did perfectly well. This operation I have never had occasion to try on the human subject; but in a case otherwise desperate, I should be inclined to recommend it. I may remark here, that since I have suggested this method of closing the bladder by ligature, Mr. Travers has performed the operation on the stomach. There was a slight wound in the organ; he boldly tied up the aperture; the thread came away, and the case did perfectly well."—*Blundell on Diseases of Women, p.* 19, *Note.*

Dr. Marcet gives an example of retroverted uterus in the unimpregnated state, where constipation and vomiting were distressing symptoms.—*Vide Cooper on Hernia, Part II, p.* 60.

* Nauche records a case which was supposed to be retroversion, and in consultation about which, it was determined, as a last resource, to puncture the uterus, all efforts at reposition having proved unavailing. The patient died, and upon examination it turned out to be a case of extra uterine fœtation; the sac containing the fœtus having descended into the pelvis. A fistulous communication had taken place naturally between this tumour and the rectum. In such cases, a correct diagnosis must be very difficult of attainment; happily they are very rare.—*Mal. Prop. aux Femmes, vol I, p.* 108.

From the symptoms already detailed, especially the retention of urine and the difficulty of defecation,* the former having come on suddenly and during early pregnancy; from the situation of the cervix and the position of the fundus; from the distressing pelvic fulness and the constitutional sympathies; from the constantly recurring necessity for the catheter; and from the fact that in raising the tumour after emptying the bladder, it assumes the situation of the uterus;—from all these indications combined, the nature of the disease may usually be determined with certainty.

Treatment and Termination.—All writers agree, that the uterus may right itself after the bladder has been emptied and the bowels freely evacuated. Such cases are recorded; and doubtless there have been instances where the disease, never having been suspected, was thus spontaneously cured. Much, however, must depend on the retroversion being slight, and on these measures having been early adopted; for the mechanical impediment to reposition is too great to allow the expectation of so fortunate a result, where the displacement is complete and of long standing.

Hunter and Denman, especially the former, did not think so seriously of the difficulties of reposition or of the dangers of continued retroversion, as we do now. In Dr. Hunter's remarks on Mr. Wall's case, he says, "after the case was suspected from the suppression of urine, and then certainly known by the examination with the finger, both in the vagina and the rectum, the urine was first completely drawn off by the catheter, then a sufficiently stimulating clyster was thrown up; and after the bowels were well emptied, it was always found easy to replace the uterus. In one instance, the uterus of itself recovered its natural situation, immediately after the above-mentioned evacuations had taken place. In another case, there were several relapses before the uterus grew so large, that it could no longer fall back."

Burns coincides in these views, and counsels delay and con-

* Burns says (8th edit. p. 250), that it has been maintained by some, that no effect is produced on the rectum; nevertheless, the obstruction in certain cases is so great, that feculent vomiting is produced; and, moreover, on dissection, the rectum has been found stretched over the fundus uteri.

fidence in the tendencies to reposition characteristic of advancing pregnancy. After mentioning the importance of evacuation of the urine, the employment of injections to empty the bowels, blood letting if there be fever, and of an anodyne clyster if there be strong bearing-down efforts, he remarks, "this is, in general, all that is requisite; and I wish particularly to inculcate the necessity of directing the chief attention to the bladder, which ought to be emptied at least morning and evening, or a gum catheter may be left in the bladder. By this plan we generally find, that the uterus resumes its proper situation in the course of a short time, perhaps in forty-eight hours; and the retroversion is seldom continued for more than a week, unless the displacement have been very complete. The precise time, however, required for the ascent of the womb will be determined, *ceteris paribus*, by the degree to which it has been retroverted, and the attention which is paid to the bladder. If the fundus be very low, the ascent may be tedious; but I consider myself as warranted from experience to say, that in every moderate degree of retroversion, in every recent case, it is sufficient to empty the bladder regularly without making any attempt to push up the womb. But if the uterine tumour be very low, and near the perineum, it may be necessary, and certainly it is allowable, to endeavour to replace the womb. This is also proper, if there be much irritation excited by the state of the womb, and which does not give way to the use of the catheter, and of anodyne clysters. I fear, however, that these efforts are too keenly made, and that often more harm than good is done by them. It may be said, that although the immediate danger be done away by the regular use of the catheter, yet the womb may remain for ever in its mal-position, and give rise to great difficulty in labour, or to the same event as in extra uterine pregnancy. I can only reply, that in almost every instance where the bladder has been regularly emptied, the case has done well; and I do believe, that in those where the uterus did not rise spontaneously, very little good could have been done by mechanical efforts."

Other opinions might be adduced in support of these views, and there are not a few instances where spontaneous reduction has followed the frequent employment of the catheter. Nor is

this to be wondered at, if we remember that the bladder has sometimes, from accumulation of its secretion, equalled the size of a pregnant uterus of the sixth month. Here the prompt abstraction of many pints of urine, by which great pressure is suddenly removed from the womb, might permit instant replacement. Hunter mentions an example where the reduction occurred immediately after the bladder was thus emptied; and in Mr. Croft's second case, the water having been drawn off for six days, the uterus suddenly rose. Dr. Cheston's case is very interesting; a large accumulation of urine had taken place, and not being able to introduce the catheter, an attempt was unsuccessfully made to reduce the retroversion without drawing off the water. Had this been done, it is highly probable the bladder would have burst; but, happily, the attempt failed. The bladder was then tapped (an operation, in the necessity for which, from all I have seen, I do not believe), and the uterus righted itself. No fact can more strongly attest the importance of relieving the bladder. A careful perusal, indeed, of the cases of retroversion published by different authors will show, that where death ensues, it is usually either by irritation, by inflammation involving the peritoneum, or by rupture and sloughing of the bladder.*

* Dr. Hunter described a case, where the bladder after death was found to be amazingly distended, but not ruptured. Here, probably, death occurred from irritation and inflammation.—*Med. Obs. and Inq., vol. IV, p.* 400.

Mr. Wilmer found the belly greatly distended; six pints of urine were drawn off, but the woman soon died. The bladder, from disease of its surface (*ulceration I presume*), contained a quantity of coagulated blood, and the inflammation had spread to the colon. In this case the umbilicus was protruded like half a melon, and the disease was at one time taken for hernia. The uterus was found to be so firmly wedged in the pelvis, that it could not be raised up till the symphisis pubis was sawed away. —*Wilmer's Cases, p.* 284.

Mr. Lynn adduces an example, where the bladder burst, and immediately afterwards the woman miscarried; but the uterus after death was found to be still displaced.—*Med. Obs. and Inq., vol. V, p,* 388.

Dr. Ramsbotham, Sen. was requested to visit a patient at Mile End, who had not passed her urine voluntarily for three weeks, but an involuntary dribbling had occasionally taken place without giving her any relief. The vesical tumour was large and painful, and her sufferings were relieved by the drawing off a large quantity of fetid offensive urine. Retroversion was detected, and she was four months advanced in pregnancy. The catheter was daily introduced, and aperient medicine administered. Within ten days, two unsuccessful attempts at reduction were made. Towards the

With these facts, and many others of the same kind might be adduced, it has always been to me a matter of surprise, that so little anxiety should be evinced about reposition. If

end of November (1817), Dr. Ramsbotham having first seen her October 3rd, as there was costiveness, nausea, occasional vomiting, and much emaciation, made another violent effort to replace the womb, but did not obtain his object. On the evening of December 14th, labour commenced, after the discharge of the liquor amnii. The pelvis was completely filled up by the enlarged uterus, with the os uteri open above the brim, pressing against the abdominal parietes, through the emaciated structure of which, the hand could distinctly detect the opening uterine mouth. Dr. R. now determined to make another and very active attempt at reduction. Kneeling down by the side of the bed, he introduced the whole of his left hand into the rectum, then passing his right hand between the thighs upon her belly, he pushed up the fundus uteri with the palm of his left hand, at the same time drawing down the cervix and parts adjoining with his right hand. This was successful; a living child was born in about two hours, and the mother ultimately recovered her previous state of health. Dr. R. thought that the reposition was attributable to the sudden diminution of uterine bulk by the discharge of the liquor amnii, a fact, he says, "that may lead to future improvement in practice in cases of danger."—*Pract. Obs. Part II, p.* 441.

In another case, the patient had suffered "under the extreme agonies of a distended bladder for fourteen days and nights, the bladder being prevented from bursting by the droppings mechanically forced out of the urinary passage by the degree of distension." The symptoms were alarming, and having made two powerful and unsuccessful efforts at reposition, Dr. Ramsbotham, with great difficulty, punctured the membranes, a four months' fœtus being expelled two days afterwards. I have quoted this case, because in this lady's subsequent pregnancy, the uterus, at the third month, became again retroverted; but, "after the bladder had been relieved a few times by the catheter, the uterus spontaneously righted itself, without the necessity of other assistance."—*Prac. Obs. Part II, p.* 443.

In a third case, retroversion occurred from an attempt "to reach something from a shelf," producing a sensation "of a *giving way* within her, which was followed by an inability to pass urine; yet a little escaped now and then involuntarily." Three quarts were drawn off; it was highly offensive and loaded with mucus, the pulse was quick and irregular, countenance pallid, showing marks of great anxiety. A day or two afterwards Dr. R. recommended the induction of premature labour; but no persuasion could induce the patient's assent. She lingered in a state of extreme suffering to the time of her death, May 7th, a month after the retroversion. It was found on a post mortem inspection, that the bladder was large and flaccid, its peritoneal coat exhibiting marks of inflammation, and its mucous lining covered with a substance of a semi-fluid consistence. When this was removed, its internal surface was rough, flocculent, and the whole vesical contents were extremely offensive. At the point of adhesion between the bladder and colon, the ulcerative process had taken place, so that there was a free communication between the two cavities.—*P.* 440.

Dr. Squires relates an instance in the Medical Review for 1801, in which the bladder gave way; and Dr. Ross (Annals of Med. vol. IV, p. 248), gives the details of a patient, who, after the uterus was reduced, aborted and died: the bladder being found thickened and adhering to the navel.

the uterus be procident, a far less serious accident, its immediate return is always advised; and we blame the practitioner who allows any unnecessary delay. In retroversion, a disease of present and daily increasing danger, we are advised to content ourselves with drawing off the urine and emptying the bowels: the former, it is true, removing weight from the displaced womb; but the latter, necessary as it is for safety, enlarging the space for more complete retroversion. Nay more, Burns and Merriman, able and distinguished practitioners, seem to look almost with calmness on the great evils of repeated and only partially efficient introduction of the catheter; seeming to forget what the recorded cases prove, that however carefully the catheter may be employed, it is next to impossible, as the retroverted uterus is growing daily, its contents being still possessed of vitality, that the bladder shall be fully emptied. It is not difficult, therefore, to understand, when these gradual accumulations are going on for many weeks, that the mucous surface of the viscus shall become chronically inflamed, and that eventually purulent and sanguineous urine shall attest that dangerous ulceration has occurred.

Burns remarks, "it is nevertheless possible for the uterus to continue in a certain degree of mal-position, even to the end of gestation." Afterwards, as though it were not very injurious that it should do so, he observes, "in this case the uterus cannot, indeed, at last be said exactly to be retroverted; for it has enlarged so much, that it occupies nearly as much of the abdomen as usual," and he should have added, what constitutes the great danger, but it is wedged into and entirely fills the pelvis also.

Dr. Merriman and Dr. Barnum's cases,* and there are other

* "Mrs. F. being about five months pregnant, was suddenly terrified, and felt as if her inside were turned upside down. The symptoms, however, were not very acute, for she voided the urine in the last month of gestation, though with pain and some difficulty. On the 16th of June she had some pains, and a discharge of serous fluid; no os uteri could be felt, but a large semi-globular tumour on the back part of the vagina, bearing down toward the perinæum. The pains brought on fever, and at *last delirium and convulsions.* She was bled, and had a clyster, after which she got some sleep, and the pains continued moderate, though regular, for two or three days, and she passed both urine and stools. On the 20th, nothing like os uteri could be felt; but on the 21st, there was perceived a thick flattened fleshy substance descending into the vagina, and very soon the uterus was restored to its natural situation.

similar ones, are not encouraging examples of the practical safety of these views. I believe, if in every case of retroversion, whether occurring before or after the third month, reposition was at once attempted, there would be but few cases of failure.*

Dr. Dewees thinks, "that an exclusive reliance upon drawing off the water, has been productive of the most serious evils, if not in some cases of death itself."

Even where powerful, and according to Dr. Ramsbotham, "violent" efforts have been used in attempting reduction, neither "delirium nor convulsions" have ensued; both of which

The substance was found to be the scalp of the child, containing loose bones. The child and placenta were delivered, and the mother recovered.

Dr. Barnum relates, that the patient, in the fifth month, after some imprudence, had pain accompanied with a discharge of water and some blood. In the following month, November, she had a return of a pain, and the os uteri was felt directed to the pubis, and the fundus to the sacrum. All attempts to reduce it failed; suppuration took place, and fœtal bones were discharged by the anus. She died in March.—*Med. and Phys. Journ. vol.* 16, *p.* 388.

* In 1840 I was requested to see a young woman four months pregnant. Nearly a fortnight before, soon after jumping over a flower pot in the garden, she found she could not pass her urine. She strained violently, sat over hot water, and applied gin fomentations, but all without effect. A neighbouring practitioner discovered the retroversion, drew off the water, gave an aperient, but did not attempt reposition. The symptoms grew daily much worse; the use of the catheter was attended with great suffering, and was always followed by the passage of purulent matter, and frequently of blood. Defecation could only be effected by active purgatives, for it was impossible to inject a clyster. The pulse was quick and compressible, there was constant nausea and frequent vomiting. What was to be done? I urged immediate reduction; but the attendant practitioner recommended still farther delay, expressing a wish that, after the use of the catheter, she should lie on her abdomen to aid spontaneous replacement. To this, most unwillingly, I was compelled to assent. Two days elapsed, bringing with them not the reduction, but aggravated sufferings. My first attempt was unsuccessful; on the next occasion, with as little severe pressure as possible, I got nearly the whole of my right hand into the rectum, while with the fingers of my left hand I tried to reach and press upon the cervix. In less than a quarter of an hour, or very little more, I succeeded. The patient, although complaining of the process, declared the suffering was nothing in comparison with what she had endured the previous three weeks. There was no amelioration to be hoped from palliative measures; every day would have accumulated difficulty and suffering; and at length, long before the term of pregnancy had expired, either puncturing the membranes or tapping the uterus, must have been resorted to.

I have appended this case in the form of a note, as illustrative of the opinions expressed in the text.

occurred in Dr. Merriman's case, where the displacement continued up to the time of labour. It is indeed almost impossible to imagine a more dangerous complication of miseries than that resulting from retroversion persisting to the end of pregnancy. Nothing short of the absolute impossibility of reduction can justify the abandonment of the patient to such a fate. The risk of producing abortion, and the occasional difficulty of replacement are certainly evils; but of far less magnitude than delayed reposition, with its accompanying and certain dangers.

The methods of reduction are not entirely the same, either as to position or the means employed. In cases, where the patient is seen early, the usual obstetric posture on the left side, and close to the edge of the bed, may be adopted. After drawing off the water, all the fingers of the right hand should be passed into the vagina, over the body and fundus of the womb, while the thumb inserted into the rectum, places the retroverted uterus favourably for reduction. Gentle pressure will often suffice for its restoration. But the attempt to reduce the retroversion in this way is not always successful. The patient may then be placed on her knees and elbows, so that the pelvis shall be higher than the abdomen, thus removing the pressure of the viscera. Two or three fingers of the right hand are to be passed into the rectum, so as to get a bearing on the fundus, which is to be urged above the promontory of the sacrum; and if at all practicable, two fingers of the left hand may at the same time be placed on the cervix, and while pressing the fundus upwards, we may draw the os downwards. I know how difficult it is to execute the latter part of this duty, for in using both hands so close together, one necessarily embarrasses the other. It is sometimes, too, impossible to reach the cervix; and even when touched, it may be so slippery from mucus, that we cannot retain our hold.

In extremely bad cases of retroversion, where perhaps more than four months of pregnancy have elapsed; where every attempt at reduction has shown the womb to be almost immoveably wedged in the pelvis, bleeding, the exhibition of tartarized antimony, so as to induce nausea, and the warm bath, are valuable adjunct remedies. If, when these have produced their effect, the bladder and rectum being also evacuated, we make

another and more powerful attempt, we may succeed; nor ought we, till having failed in repeated efforts, determine that reduction is impracticable. For my own part, I have so great a dread of the continuance of retroversion, that I would not hesitate to introduce the whole hand into the rectum, and exert very considerable power to accomplish this desirable object.* Baudelocque expresses the following opinion: "We can say nothing here of the force necessary for replacing the uterus. Sometimes very little is necessary, if well directed; at other times we must use a great deal. The fear of provoking an abortion in the latter case, ought not to check the operation. Besides that it is not always the consequence of such efforts, for I could quote more than twenty cases in support of this assertion, the danger to which retroversion exposes both mother and child, will be much greater and more certain, if that viscus be not replaced in time."

No practitioner conversant with operative midwifery, can fail to appreciate the difficulty of determining the exact degree of power (for I do not like the word "force"), which should be used in turning cases and deliveries by the forceps; for while, on the one hand, it is imperative that no greater power

* On July 8th, 1834, I was called to Mrs. T., who had, from being knocked down by a drunken husband, suffered retroversion of the uterus in the 14th week of her pregnancy. The accident occurred five days before I saw her, and she had not since relieved the bladder by more than a few drops at a time. I drew off the water (nine pints), and in the course of a few hours the bowels were evacuated for the first time since the accident. My first attempt at reduction was unsuccessful, for I could not move the fundus; and on two other occasions I was equally unfortunate. Finding that she became impatient and exceedingly averse to the catheter, which a neighbouring practitioner, the late Mr. Rance, of the City of London Lying-in Hospital, used for her, and that her sufferings were producing fever and great excitement, I determined to make a final and powerful attempt at replacement. As the pulse was quick and hard, we took away twelve ounces of blood, which induced slight syncope. She was now placed on her knees and elbows, Mr. Rance sitting by her to keep her in this position. Having lubricated my right hand, its introduction into the rectum was gradually accomplished, and with much less pain to the patient and difficulty to myself than I could have supposed. I soon found that I had great command over the tumour, and Mrs. T. exclaimed, on powerful pressure being made upon it, "that the womb was going into its place." There was, however, considerable delay in getting it past the promontory of the sacrum; but in about fifteen or twenty minutes from the first effort, it passed fairly out of its wedged position in the hollow of that bone. She was requested to keep in bed for a fortnight, and to avoid all violent exertion. She went to her full time, and was safely confined.

should be exerted than is absolutely necessary; on the other, it is equally imperative that the utmost effort, compatible with the safety of the soft parts, should be used to insure the completion of the labour. Just so in the reduction of a retroverted womb. A timid practitioner, dreading the consequence of these great exertions of power, often wastes time in slight and ineffective attempts at reduction; whereas efforts of a more decided character would lead to replacement. It has been recommended, where it is difficult to pass the finger beyond the cervix in order to depress it, that a pair of hooked forceps should be used. Such an instrument could not be easily carried to its destination; though if we were so far successful, it might aid the reduction. Duges urges the introduction of a sound into the bladder to depress the neck; but I am not aware that this suggestion has ever been tried; nor, can I imagine that any efforts to alter the position of the cervix will avail much, unless they are simultaneous with an attempt to raise the fundus, the serious part of the disease.

But if, after all our efforts it is not possible to effect reposition, two methods of procedure are still open. Either we may leave the case to nature, sedulously attending to the bladder and rectum, and wait till labour spontaneously occurs; or we may induce premature parturition, by puncturing the membranes through the os, or by tapping the uterus through the vagina or rectum.* Sufficient objections have, I think, been already urged against the first course; but if it be determined on, the recommendation of Denman ought to be followed. It consists in allowing but little liquid, keeping the bladder thoroughly emptied, by the use of the catheter two or three times a day, and in maintaining, for hours together, an inverted position of the pelvis, by placing the patient on her knees and elbows. Dr. Blundell who has much greater confidence than I have in this treatment, says, "she is not merely to give way on account

* Dr. William Hunter was the first to suggest this practice (Med. Obs. and Inq., vol. IV, p. 106.) "Would it not," he asks, "be adviseable, in a bad case, to perforate the uterus with a trocar, in order to discharge the liquor amnii, and thereby render the uterus so small as to admit of reduction?" It does not, however, appear that it has been done more than twice, once on the Continent and by Mr. Baynham at Birmingham.

of fatigue, but to continue it as long as the replacement may require. Adopting this plan, the bladder being empty, the womb will sometimes return to its natural position; may be immediately, may be an hour or hours, but I think I may venture to add, that it pretty certainly returns at last." It would have been satisfactory and convincing, if cases proving the success of this measure had been recorded. In their absence, it may be doubted whether this gentler expedient ought to be relied on, when we know the great power which is often required to dislodge the fundus in protracted retroversion.

It has been found sometimes, although seldom, that the catheter could not be passed; and, as already seen in Dr. Cheston's case, the bladder has been tapped prior to any renewed attempt at reduction. I cannot see how such insuperable difficulty should exist, and in this opinion Burns, Dewees, and many other practitioners coincide. A perusal of the cases where reposition was most difficult, owing to the size the uterus had attained and the degree of vesical distension, will show, that even in these, the flexible male catheter was introduced without any marked delay or suffering.

It is not always easy to puncture the membranes through the os, owing to the elevated position of the cervix;* and

* "Not being at the moment provided with any proper instrument for rupturing the membranes, I deferred the operation till the evening; when I attended with such means as seemed likely to accomplish my intended object. After drawing off the urine, which was still mixed with a quantity of fluid blood, I passed two fingers of my left hand by the pubes upon the os uteri, over which I introduced a bending bougie, and was fortunate enough to insinuate its point within the os uteri, by which the membranes were ruptured."—*Dr. Ramsbotham's Prac. Obs. vol. II, p.* 446.

"In a case of retroversion of the uterus, where the catheter could not be introduced, nor the rectum emptied, I should feel myself inclined to consider the propriety of tapping the uterus, which might perhaps be found, on the whole, to be as desirable an operation as tapping of the bladder, or the dividing of the symphysis pubis. I should not take a great trocar and canula, as if I were going to tap in a case of ascites, wounding a great many vessels, and perhaps occasioning death; but I should prefer an instrument of a very small size, by which I could perform a sort of acupuncturation. Perhaps an instrument on the principle suggested might be introduced into the uterus without much danger; and then, if a contrivance were fixed upon the other end of it, so as to bring away the fluid by a sort of suction, it

if we fail in repeated attempts to accomplish this purpose, tapping the uterus is our only resource. The extreme suffering will not often allow us, even were we disposed, to content ourselves with drawing off the water and palliating symptoms to the time of labour. Dr. Blundell's views of the method in which the operation should be performed, and Mr. Baynham's most interesting case, I have inserted in the notes.

may be that a good deal of the liquor amnii might be drawn off. If the uterus was thus evacuated of the liquor amnii, there would immediately be a considerable reduction of its bulk, and perhaps at length an expulsion of the ovum. The womb might be tapped either from the vagina or the rectum; but vaginal tapping would, I conceive, be preferable.—*Blundell on Diseases of Women, p.* 15.

Mr. Baynham says, "The consequences of retroversion of the uterus have been so often fatal, that a case successfully treated by surgical operation, cannot be devoid of interest. The practice adopted in this instance will be found uncommon; and, since it led to a successful issue under the most unpromising circumstances, deserves to be recorded.

"Hannah Martin, aged 30, of spare make, was admitted a patient of the dispensary, 28th of March, 1828. She was then in the sixth month of her second pregnancy, the history of her case to which period is briefly as follows:—

"When employed six weeks previously in moving a heavy weight, she suddenly felt acute pain in the lower part of the belly. To this, however, little importance was attached at the moment. Two days afterwards retention of urine occurred with almost constant pain. The nature of the case appears to have been overlooked by the gentleman consulted in the first instance, since the use of the catheter was not proposed. She had dripping of urine, with progressive enlargement of the abdomen during the next month; at the end of which time, finding no relief in medicine, she applied to another surgeon, who, by the introduction of a catheter, obtained eight pints of urine in the morning, and nearly the same quantity seven hours afterwards. No examination, *per vaginam*, was even now instituted, and, of course, no permanent relief secured to the patient, the catheter only being used night and morning in the next fortnight. When recommended to the dispensary she had kept her bed three weeks, and was in a state of high fever, her pulse 136, short and indistinct. She had frequent vomiting, constant micturition, tenesmus, fulness, tension, and tenderness of the abdomen. In my first attempts to pass a catheter, I was embarrassed by the altered state of the external organs; a large portion of the vagina being prolapsed, and the clitoris and nymphæ greatly enlarged. The urine which escaped by the instrument resembled the contents of a psoas abscess, but was much more fetid. The entire cavity of the pelvis was occupied by a tumour which caused protrusion of the anus, and also eversion of the lower extremity of the bowel. The mouth of the uterus was far beyond the reach of the finger, and the fundus of this organ was situated less than one inch from the anus,—a circumstance which rendered the admission of the finger into the rectum, a work of much difficulty. Feeling satisfied that no urine remained in the bladder, I attempted to replace the uterus by a gradual introduction of the whole hand into the vagina. The os uteri pointed

Case 89.

RETROVERSION TERMINATING FATALLY.

REPORTED BY THE CLIRICAL CLERK.

Mrs. ——, æt. 41, was admitted into Petersham Ward, under Dr. Ashwell's care, Oct. 1837. She had borne ten children, and had miscarried

directly upwards, and was raised above the pubis; in fact, the retroversion was complete.

"Having persevered as long as seemed consistent with the safety of the patient, I requested the attendance of two of my colleagues, and they met me in consultation the same afternoon (March 28). She had become much more exhausted and restless. Her anxiety of manner, and the failure of her pulse, leading us to suppose that she was nearly moribund, I proposed the immediate introduction of a trocar into the uterus for the purpose of lessening its volume. Preparatory to any other steps, the catheter was again used, and having then placed the woman upon her elbows and knees, I once more endeavoured to raise the tumour, but not succeeding better than before, I slowly passed my hand into the rectum, and, adapting it as far as possible to the base of the tumour, continued for some time to make the firmest pressure without sensible advantage.

"Mr. Blount, one of the gentlemen present, in the expectation of a better result, desired to satisfy himself of the impracticability of success before the operation of puncture was adopted. Having passed his finger into the os uteri, he endeavoured to rupture the membranes; but, although assisted by a curved metallic instrument, he was compelled to relinquish his purpose, and all other expedients to relieve the patient having failed, it was determined to employ the trocar. In this proceeding I selected the most prominent point of the tumour in the rectum. The entrance of the trocar not being followed by any discharge, it was withdrawn and introduced a second time in nearly the same situation. About twelve ounces of colourless fluid now escaped by the canula, but not without frequently changing its position; since the opening was at times obstructed by the presence of the child. The fulness of the uterus having thus been diminished, attempts were again made to carry it above the brim of the pelvis, and this was effected in less than a quarter of an hour. When the organ had recovered its proper situation, the os uteri was found partially dilated, and the membranes somewhat protruding. A full opiate was prescribed, and the woman passed a better night than any in the previous month.

"The next morning, although still in a state of great exhaustion, she was decidedly improved. Labour pains occurred in the evening of the 29th, and less than one hour sufficed, fortunately without hemorrhage, to exclude the contents of the uterus, twenty-five hours after the operation. The ovum was entire, the membranes perfect, and still retaining ten ounces of liquor amnii untinged with blood. The fœtus was perfectly fresh, and of the ordinary size at six months. The trocar both times had penetrated the substance of the placenta near to the insertion of the cord, and once had entered the abdomen of the child; forming an aperture through which nearly the whole of the small intestines were forcibly protruded by the pressure subsequently used. The second puncture was referrible to this unavoidable accident.

three times. For five months she had observed a progressive increase in the size of her abdomen, which she attributed to pregnancy; but there were no other corroborative symptoms. For three weeks previous to her admission, she had been much annoyed by a constant "stillicidium urinæ." Soon afterwards the swelling of the abdomen increased more rapidly, attended with great pain in the back, and a dragging sensation at the umbilicus: notwithstanding, she daily passed a considerable quantity of water, occasionally of a high colour. The swelling of the abdomen was oviform, occupying its whole cavity, with a decided fluctuation on percussion, except at the upper part, where an indistinct boundary could be felt: its surface was tense, shining, and traversed by distended veins. The pulse was quick, the countenance flushed, and the respiration hurried. During the first night after her admission, she passed two pints of urine by the voluntary efforts. On examination per vaginam, the os uteri could not be found; but a considerable gush of fluid of an urinous smell followed the intro-

It is worthy of remark, that, notwithstanding the placenta was twice perforated, hardly a tea-spoonful of blood was lost."—[In a case of Mr. Hunter's (July, 1844), of Tower Street, where I was consulted, and where it was, for the fifth time, necessary to bring on labour prematurely at the 7th month, the placenta was perforated five or six times, owing to its being over the mouth of the uterus, before we could succeed in satisfying ourselves that the membranes were really punctured. The liquor amnii escaped, however, and labour occurred. On examination afterwards, we found seven or eight perforations, but neither previously, during, nor after the labour, was there hemorrhage.]

"The catheter was used but once after this time, when a pint of equally offensive urine was evacuated. Incontinence then supervened, and lasted nearly five weeks; and severe pains continued to be felt in the pelvis for some time. Copious vaginal discharge, added to the stillicidium urinæ, kept up a state of soreness and excoriation; and it was not until after a month that her urine lost its fetor. Considerable masses of coagulated lymph were often discharged, and, at separate times, four pieces of regularly organized membrane, which were mistaken for portions of the bladder, but which subsequent events happily proved to be parts of the vagina only. At the end of April she had the satisfaction of holding small quantities of urine, and in a fortnight could retain it almost as well as before her illness. The rectum was longer in recovering its tone than the vagina; purulent evacuations taking place from the former passage, with frequent and sometimes distressing tenesmus, until after she was in other respects well. It is probable that an abscess formed in the cellular substance, between the vagina and rectum, since the matter voided per anum was different, and more in quantity than the mere surface of the bowel could have yielded. She kept her bed three weeks before she applied to the dispensary, and did not leave it until nearly a month afterwards. Upon the 7th of May, she was sufficiently recovered to leave home and engage in her usual occupation. Menstruation occurred in the first week of June, and she has continued in good health since that period."—*Edin. Med. and Surg. Jour. March* 1830, *p.* 256.

duction of the finger. Per rectum, a large tumour could be felt pressing upon and diminishing the calibre of that bowel. A long female catheter was now obtained; but it was only after repeated solicitations and almost compulsion, that the patient would allow it to be passed: its introduction was accomplished with great difficulty, as the meatus urinarius was drawn up above and behind the pubes. Upwards of eleven pints of ammoniacal urine were obtained; after which, she was placed on her knees and elbows, and the uterus was restored to its natural situation. In three hours the catheter was again introduced, when three pints more urine flowed away. On the following morning, four and a half pints more were evacuated. From this time the catheter was obliged to be constantly resorted to, to relieve the weakened bladder: in the course of five days she aborted of a three-months' fœtus, and sank 96 hours afterwards.

I believe partial retroversion of the unimpregnated womb to be a more frequent occurrence than is generally supposed; its most common cause being hypertrophy, or more serious disease of the posterior wall of the organ. If in such cases, where there is difficulty of micturition and defecation, a careful examination were made, the uterus would, I am persuaded, be often found more or less retroverted. The measures necessary for the cure of the morbid state of the uterine structure, will, if successful, be curative also of the retroversion.

RETROFLEXION OF THE UTERUS.

I HAVE already remarked, that there are practitioners who doubt the existence of this state; and of late years, I believe many cases of slight and unimportant uterine displacement have been most erroneously set down as examples of the anterior or posterior flexion; but that these affections really occur, I have not any doubt. To Levret we are indebted for the first notice of anteflexion, and Denman, one of the most eminent and truthful practitioners, was the first to describe retroflexion. The former celebrated man communicated his views in 1773, in the old French Journal de Médécine, tom. 40, p. 269, treating of anteverson "*as a particular displacement of the uterus, not previ-*

ously spoken of by authors." Denman (Introduction to Practice of Midwifery, chap. 4, sect. 2,) defined the latter malady, "as such an alteration in the position of parts of the uterus, that the fundus is turned downwards and backwards between the rectum and vagina, whilst the os uteri remains in its natural situation; an alteration which can only be produced by the curvature of the uterus in the middle, and in one particular state; that is, before it is properly contracted when a woman is delivered. A suppression of urine existing at the time of delivery, and continuing unrelieved afterwards, was the cause of the retroflexion in the single case of this kind of which I have been informed by Dr. Thomas Cooper, and the symptoms were like those occasioned by retroversion. When the urine was drawn off by the catheter, which was introduced without difficulty, the fundus of the uterus was easily replaced by raising it above the projection of the sacrum, in the manner advised in cases of retroversion, and it occasioned no further trouble."

Thus retroflexion may be regarded as partial retroversion—the same in every respect save one—the alteration of position of the cervix; which, from its preserving its proper locality, renders curvature or flexion of the body necessary to the production of the displacement. Retroversion and retroflexion bear the same relation to each other in the posterior part of the pelvis, as anteversion and anteflexion do in its anterior space; but the relation is destroyed, if we regard the more serious mischief produced by the latter beyond those which result from the former diseases.

I need not occupy the time of the reader by a detailed history of retroflexion: its symptoms are in a great measure those of the related malady; their cause and the treatment are nearly similar. It is easy to understand the improbability of its occurrence during pregnancy, at least after the earliest period; for subsequently the general enlargement of the uterus would preclude the displacement of one portion alone. Denman's views, so far as they go, are correct, and I can readily understand how rare an occurrence it must be in the puerperal state; but he was wrong in supposing it never occurred in any other condition. I have seen two well marked cases, and in both the uterus

was unimpregnated. The details of these will probably furnish all the additional information necessary for a correct appreciation of the disease.

Case 90.

Mrs. ——, æt. 28; residing in the country, and the mother of several children, was placed by Mr. Crook, of Brook Street, under my care for some displacement of the uterus.

She complained of difficulty in defecation, and of frequent desire to pass water, especially during the night. There was much pain about the loins and sacrum, and a most distressing sensation of fulness and weight in the perineum. Aperients were frequently used, and even then, unless the contents of the bowels were liquid, she could scarcely empty the gut. The catamenia had been regular as to period, but the discharge was scanty and painfully excreted. Mrs. —— was evidently suffering severely from this pelvic derangement; she was irritable and feverish; passed sleepless nights, and had scarcely any appetite. The pulse was quick, the tongue furred, and I was informed by Mr. Crook, that her health had been gradually declining for many weeks. On examination, I found the cervix swollen, but in its natural situation; or if at all changed, slightly projected upwards towards the roof of the vagina, immediately behind the junction of the neck with the body of the womb, and the finger passed into a space, evidently formed by a curvature at an acute angle of the body of the organ; and below this and upon the rectum, the posterior part of the fundus was easily felt. On passing the finger into the gut, a large, hard, rounded mass, the fundus of the womb, was at once distinguished; but there was a considerable quantity of solid fæces in the bowel, evidently the consequence of incomplete defecation. I could not, on inquiry, ascertain any very definite cause for the displacement; the only circumstance remembered, was difficulty in passing water two months before, after a long walk; but she confessed, that subsequently, she had never been quite free from uneasiness, and that latterly she had frequent throbbing pain in the rectum.

A repeated examination convinced me, that there was at least considerable congestion of the whole organ, but especially of its posterior wall, if not inflammation, as the parts were hotter than natural and pressure was badly borne. Aperients, effervescent salines, and anodynes were exhibited; the recumbent posture was enjoined, and the warm hip-bath was used night and morning for several days. At the

expiration of this time, having placed her on her elbows and knees, I attempted to restore the fundus to its natural state in the pelvis, but without any success. These efforts were, however, continued daily for a week, at the end of which, having lain almost the whole time on her stomach, I was convinced the uterus had nearly reached its natural position. I was, however, too anxious to complete the replacement, to allow her to return home without another attempt. I used on this occasion a piece of sponge covered with soft bladder, mounted on a thick wooden stem: having oiled it thoroughly, I passed it very high up the rectum, and having used considerable power, Mrs. —— said she felt quite easy; and on examining I found, to my great satisfaction, the uterus *in situ*. Soon afterwards the lady became again pregnant, wearing a pessary nearly the whole time. No untoward event occurred either during gestation or delivery. She has since died from consumption.

Case 91.

RETROFLEXION OF THE UNIMPREGNATED UTERUS.

Mrs. ——, æt. 30, married, but without children, called upon me, September, 1844, at the request of Mr. Steel, a surgeon residing in Well's Street, Gray's Inn Road, complaining of menorrhagia. Her symptoms induced me to request an examination, and from the rounded form, central position, and mobility of the cervix, at first I thought I was touching a polypus; but the error was instantly corrected, by carrying the finger towards the under surface of the cervix, when I found the body of the uterus curved at an acute angle on the cervix; and as the fundus was fairly in the hollow of the sacrum, the finger could be easily placed in the angular space. By the rectum the uterine tumour could be distinctly felt, and I was sorry to find it was firmly fixed in its new situation; for although firm pressure was made upon it from below, it could not be raised or moved upwards. This lady has suffered much from the displacement, irritation and fever; frequent calls to micturate, and difficult defecation, have injured her health and destroyed her comfort. She has scarcely any idea how the mischief happened, the only circumstance remembered being the occurrence of uterine spasm from injections of cold water for menorrhagia. The attack was severe, and she has never been quite easy since. As yet the efforts at replacement have been unsuccessful. No practitioner could be in doubt about the existence or precise nature of the retroflexion, were two such cases as these to fall within his observation.

HERNIA OF THE UNIMPREGNATED UTERUS.

This most uncommon malady is ordinarily denominated hysterocele, and as a displacement, may occur either during the pregnant or unimpregnated condition of the organ. The position, however, of the uterus in the centre of the pelvic cavity, with the bladder before and the rectum behind, and the broad ligaments stretched out on either side, would seem, were it not for the cases which follow, almost to forbid its taking place when the organ is in an empty state; nor is it less difficult to imagine its occurrence during impregnation, except in the earliest months, and in a dilated state of the abdominal rings. There is not on record, I believe, a single case of hysterocele in a virgin subject. An example of herniary or extra abdominal protrusion fell under my notice some years since, and as it must be exceedingly rare, I shall insert it in a note, and add two cases of undisputed hernia uteri. The treatment consists in the application of bandages and trusses as preventive measures, where the disease is only commencing; and by their use to prevent a return when it has once been reduced. "In the event of strangulation taking place," says Dr. Davis, "there should not be a moment's hesitation as to the obligation of performing the operation required in that case without delay."*

* In 1833, August 5th, I visited Mrs. D——, at Woolwich, in consultation with Dr. Stewart of the Artillery and Mr. Butler, Senior, of Woolwich. The lady, a native of Malta, had till within the last few years resided in that island, and shortly before coming to England, had been dangerously ill from epidemic fever. As the result of this attack, a large abscess had formed in the linea semilunaris of the left side, and a considerable portion of the muscular structure was destroyed by ulceration. The matter was evacuated by the lancet, exceeding a quart in quantity. In the course of a few weeks partial granulations were formed, and the wound was cicatrized; but there was evident loss of substance about the part, and a depression existed in the adjacent muscle, of the size of a crown piece; satisfying Dr. Stewart, that in this spot there was only peritoneum and the common integument, the intervening tissue having disappeared. She conceived almost immediately, and came to England. At my visit she supposed herself more than seven months pregnant, and the question to be determined was, whether extra uterine pregnancy existed? This was soon determined in the negative: it was a case of extra abdominal, not extra uterine pregnancy; and the appearance of the patient was most singular. Through the aperture in the abdominal muscles, the uterus had gradually passed, soon after

Cases 92 and 93.

For the following cases I am indebted to Dr. Davis. Vide Principles of Obstetric Medicine, vol. I, p. 506.

"One of the first recorded cases of hernia matricis in an unimpregnated subject, is that which we find reported by Professor Lallement in the Memoirs of the Medical Society of Emulation, tom. III, p. 323. The subject of the case was an old washerwoman, who had many children; but without having experienced any thing unusual in her labours. At about the age of 50, when her menses ceased, a swelling presented itself at the right groin, in consequence of a strong bodily effort. This tumour was of a pyriform shape, and of length equal to five fingers' breadth. From its being painful at first, it soon afterwards became insensible. The subject of the case, some time subsequently, availed herself of an asylum afforded her at l'Hospice de la Salpetrière, where she died at the age of 71. On dissecting her, Professor Lallement found, in a very thick herniary sac, the whole of the uterus, together with the fallopian tube and ovary of the right side. The other ovary and its tube were seen to border the outside of the ring. The vagina was drawn violently upwards, and put upon the stretch by the uterus, so as to cause pressure of the bladder against the pubis. The upper part of the vaginal tube had indeed been carried through the ring, together with the vaginal part of the uterus, which it embraced. M. Lallement directed particular attention to this circumstance, as a feature in the case which should be considered as one of the most cer-

rising out of the pelvis; and in proportion to its subsequent growth, the fundus had descended lower and lower, covered, not as in ordinary pregnancy, with the abdominal integuments entire, but only invested with the peritoneum and skin; so that at this period (probably a little beyond the seventh month), the gravid womb formed an immense ovoid tumour, the greater extremity being inferiorly, reaching nearly to the left knee, the tumour gradually diminishing in breadth as it approached the abdominal aperture. The os and cervix were, however, within, so that there was great stretching of the uterine walls in the erect posture, and there must also have been considerable curvature at this point. The movements of the child were distinct and strong.

We agreed that she should maintain the recumbent posture till labour occurred, and then that she should be delivered on the right side; the womb being supported, and its return into the abdominal cavity being aided by gentle manual pressure. Mr. Butler, who attended her confinement, told me, it required a good many hours of pain and gentle pressure to get the uterus replaced; but he succeeded, the presentation was natural, and both the labour and recovery were good.

tain indications of an inguinal hernia of the uterus. M. Murat in his article on Hernia of this organ, Dict. Scienc. Méd., tom. xxxi, p. 227, quotes also the following case :—

"Maria Michel Dubourg, of a remarkably lymphatic constitution, was the mother of eight children, whom she bore without any unusual difficulty. In about eight days after the birth of her last child, when she was 40 years of age, she resumed the duties of her laborious calling, viz., that of a washerwoman; and soon after observed a small tumour presenting itself on the lower part of the groin. She succeeded in effecting its reduction, but took no other precaution. In about a year afterwards she was seized with paroxysms of abdominal pains, accompanied by nausea and sickness, which being from time to time repeated, she was induced to wear a bandage; which, however, she soon again neglected. The tumour increased in size, and eventually became irreducible. From the age of 74 to that of 82, the poor woman continued to be subject from time to time to attacks of nausea, pains of the bowels, and sometimes to vomitings. At length, on the 19th of December, 1815, some additional symptoms of strangulation presenting themselves, she was induced to seek admission into the Infirmary of the Salpetrière. The tumour was characterised by the following properties: It was situated in the right groin. It was of an enormous size, measuring five inches in length and four in breadth. Its form was that of a three-sided pyramid. Of these sides, one was directed forwards, another backwards, and was in contact with the right thigh, and a third inwards, towards the vulva, beyond which it descended some inches. It was larger in the middle than at its base, which was uppermost; its summit being inverted. Its direction was obliquely from the right to the left, and from above downwards. The integument had so much yielded, that it really formed a pendent bag between the thighs. The finger, when applied above the tumour, could easily recognise the ingenual ring in its natural state; and immediately below was felt the crural arch. The great volume of the hernia, and the very moderate intensity of the symptoms of strangulation which distinguished it, led to the belief that its contents were chiefly epiplöic; and that if it contained any internal structure, its usual and proper character must be greatly distinguished by its being included within an investment of omentum. The size of the tumour, the inconsiderable violence of its accompanying symptoms, the advanced age of the patient, and especially the bad state of the pulse, were all circumstances which contraindicated an operation; and accordingly the treatment was limited to the exhibition of laxative tisans and emollien enemata. These means proved sufficient to relieve the symptoms of strangulation; but the pa-

tient died soon after of adynamic fever. On examination of the body after death, the integument was found quite sound, and beneath it a considerable quantity of adiopose substance. The herniary sack was with difficulty to be recognised. Deeply seated there was to be seen a considerable mass of lardaceous fatty substance. This, upon dividing it, appeared to consist of two layers; one external, and the other internal. No portion of the intestine was implicated in the disease, and the visceral contents of the hernia, which were every where adherent to the adipose substance which surrounded them, were, the uterus, the ovaries, and the fallopian tubes, a part of the vagina, two distinct coils of epiploön, and finally two distinct cysts, or perhaps hydatids. The hernia was a crural one. The upper part of the vagina, greatly elongated, as indeed was the whole of it, formed a part of it. The bladder and the rectum were in their natural situation. Bulletin de la Faculté de Medecine de Paris, An. 1816, No. 1.

"It seems possible that a hernia of the uterus might exist as a congenital malformation. The author is, however, not aware of the existence of a case in illustration of this point, excepting that of the remarkable Humbert Jean Pierre, as reported by M. Maret in the second volume of the Memoirs of the Academy of Dijon, and quoted at length in a preceding article; see pp. 66 of the present work."

CHAPTER VII.

DISEASES OF THE OVARIES.

General Observations. — It is not within the scope of this work to enter into the anatomy and physiology of the ovaries and fallopian tubes. I presume that knowledge so essential to a correct appreciation of their pathology, cannot have been neglected by any individual intending to engage in the cure or palliation of their numerous and complicated diseases. Of all the female genital organs, there are none so essential, none which exercise such influence as the ovaries; so that in reference to physiology, obstetric practice, and forensic medicine, they deserve the most careful study. Perhaps, too, there are no viscera whose organic changes can be more readily observed, as there are few museums, even of moderate extent, which are not rich in preparations showing the results of their formidable maladies. The structure of the ovaries is complicated, the vesicles of De Graaf being their most important part. These lie in the parenchyma or loose cellular tissue of the organ, within a thick, opaque capsule, the tunica propria, itself invested by a reflection of the peritoneum. When it is remembered how intimately this complex organ is connected with the uterus and fallopian tubes, we need not be surprised at the variety and difficult diagnosis of its various affections. The chief function of the ovaries cannot be performed without the assistance of the fallopian tubes; nor is it often that inflammation attacks either the uterus or the ovaries without their participation, not only in the attack itself, but in its more remote consequences.

Ovarian are not so common as uterine diseases, probably be-

cause the ovaries in the performance of their important functions, are not so much exposed to circumstances likely to induce deranged action, being entirely free from the irritation of morbid discharges, and far less exposed to external injury and the immediate and local effects of excessive sexual intercourse. But, this partial immunity from disease is more characteristic of the early, than of the reproductive and more advanced period of life. It is true, that morbid lesions are uncommon, although not altogether unknown, before the age of puberty. Afterwards, however, the ovaries are subject to excitement before and during menstruation; the state of the Graafian vesicles, too, is liable to sudden change, not only as the natural result of conception, but from ungratified sexual feeling and acute or chronic inflammation;—the investing tunic must also be torn whenever impregnation occurs; and when to these conditions we add the consequences of menstruation, labour, and the puerperal state, we can have no hesitation in believing, that the ovaries and fallopian tubes must, for many years of female life, be common seats of disease.

I shall first consider *inflammation* of the ovary, both *acute* and *chronic;* afterwards *dropsy* in its various forms; and then add a brief description of the other *organic and malignant affections* which less frequently attack these parts.

Inflammation.—Allusion has been already made to the injurious effects of uterine congestion, whether it occur in connection with menstruation or from sexual excitement. The ovaries participate in these, and many of their slighter vascular changes, especially the small effusions of blood into the Graafian vesicles and into the structure of the ovary itself, may be traced to this cause. Inflammation of the ovaries is both *acute* and *chronic*, the former generally occurring in connection with inflammation of the uterus, broad ligaments, or peritoneum, and therefore usually a puerperal affection; the latter is commonly a sequence of the acute form, but it may, like the acute form, occasionally exist as an idiopathic and distinct affection.

Although *acute* ovaritis is rarely found apart from inflammation of the uterus, occurring either in the pregnant or puerperal states; there can be no doubt of its occasional isola-

tion.* "Inflammation of these organs," observes M. Portal, "has been known to exist independently of any similar condition of the uterus itself." He asserts, "that he had often met with patients of this class, who had experienced all the pathognomonic symptoms of inflammation of the uterus, but who, after the lapse of some time, and subsequently to their apparent recovery, became the subjects of fulness, and in fact of very great intumescence in one or both iliac regions, for which they took various remedies without advantage. On inspecting the bodies of such persons after death, he found the uterus perfectly healthy, whilst the ovary of one side, and in other cases of both sides. together with the ligament or ligaments, round and broad, of either, or of both sides, presented the appearance of great engorgement."

Probably in most instances the whole structure of the ovary is affected; but it is possible that the inflammation may be confined to one vesicle, and may result in circumscribed abscess, or in some of those changes in its fluid contents, which we so often see after death. In this way, the coats of the vesicle become thickened, enclosing concretions of various colour and consistency, which may be the commencement of those solid growths so often found in the parietes of ovarian encysted dropsy. There can be no doubt that inflammation of greater or less intensity and isolation, either affecting the vesicles of De Graaf or by the formation of new and morbid cysts, lies at the foundation of those numerous ovarian diseases which slowly, but sometimes more rapidly, destroy the function and eventually disorganize the structure of these organs.

* Some years since, in consultation with the late Dr. Cholmeley, of Guy's Hospital I attended Mrs. ——, æt. 39, the mother of several children, for what we supposed to have been acute inflammation of the unimpregnated uterus. She recovered with great difficulty. Immediately afterwards, she began to suffer pain, and to enlarge in the left iliac region. Dr. Cholmeley was again called, and we feared that it might be commencing ovarian dropsy. She was advised to keep quiet, and not to take any thing beyond mild aperient medicine. She continued, however, to enlarge, and in the course of three weeks without any aggravation of the ovarian symptoms, she died from neglected pneumonia. On inspecting the body after death, we found the uterus entirely free from all appearance of inflammation; but the left ovary was enlarged and highly vascular, and in one spot there was an evident cyst, containing healthy pus. The fallopian tube was thickened and adherent by its fimbriated extremity to the surface of the ovary.

The *Causes* are commonly puerperal. Certain types of epidemic childbed fever, as the records of our various obstetric institutions prove, are characterised by the prevalence of this form of inflammation. It is not necessarily confined, however, to labour and its consequences, but may arise from cold, a blow or fall, and, according to Dr. Seymour, from the presence of some foreign bodies (as hair, teeth, &c.), in the ovary itself.

In one fatal case, an out-patient of Guy's, which I saw only a few hours before dissolution, the inflammation arose from sudden suppression of the catamenia. The patient was seized, having sat in her wet clothes for some hours, with violent pain in the left iliac fossa. In four days she died; and on inspection of the parts, the uterus was found to be large and soft, but without marked evidence of inflammation; the left ovary had been intensely inflamed, pus had formed in its structure, and the whole organ was almost in a state of disorganization.

Symptoms and Diagnosis.—The symptoms of acute ovaritis are not the same in the isolated and puerperal cases. In the latter, the more general form, the inflammatory affection of the ovary is only a part of the more extensive disease, and the local ovarian symptoms are masked and indistinct, the danger being very great. Where the ovary alone is affected, there will be less constitutional disturbance, and consequently less immediate danger, whatever may be the ultimate result; but there will be dull pain, not in the hypogastrium, but deeply seated in one, or sometimes both the iliac fossæ, accompanied with sensations of weight and heat, always aggravated by the erect posture or by any sudden movement, and by defecation. I have indeed known syncope induced by the severe pain consequent on getting up in bed to relieve the bladder. At first there is not much fever; but if the disease is not early checked, the pulse will become quick, the skin hot, and nausea and vomiting will occur. In some cases there is pain, not constant, but occurring in paroxysms, in the loins and along the course of the thigh and leg of the corresponding side, if only one ovary be affected, and dysuria and tenesmus are occasionally present. If the disease has been neglected in its early stages, the ovary may become so greatly enlarged by the formation of matter

in its substance, that it may be distinctly recognized by pressure in the iliac region. It is manifest, however, that this can only occur where its size is considerably increased; in other conditions, the transverse septum of the pelvis formed by the expansion of the broad ligament, will preclude its ascent, and thus prevent such a recognition. Examination by the rectum, recommended by Lowenhardtt, will aid the diagnosis; but even here the size of the ovary must have greatly increased, or the finger will with difficulty distinguish it. Nor must it be forgotten by those who rarely make these examinations, that the uterus is more readily felt than the ovary, and may easily be mistaken for it. Where, however, the pelvis is not very deep, and the finger long, the diseased viscus may be touched lying by the side of the womb,—of course, where it is swollen, enlarged by purulent formations and tender on pressure, the diagnosis will be certain.

It has been already mentioned, that the pain is not severe; but if the disease spreads to the uterus or peritoneum, it becomes exceedingly acute, and the whole of the phenomena of inflammatory fever will occur. It is not improbable, after an attack of acute ovaritis, that the catamenial function may become deranged, and if chronic inflammation succeed, the foundation may be laid for permanent organic disease. Professor Carus of Dresden attributes nymphomania to ovaritis. The former disease is happily so uncommon, that extensive observations cannot be expected; but so far as my experience goes, I am decidedly of opinion, that sexual feeling is diminished, not increased, by ovaritis. In two instances, I am perfectly convinced, that the result of the malady was entire aversion to intercourse, and it is now allowed, that nymphomania more generally depends on the external organs, so far as physical causes are concerned.

The course of the malady is distinctly seen in the note below.*

* "Mrs. S——, æt. 40, of middling stature, delicate figure, and florid complexion, mother of several children (the youngest of which is eight years of age), having hitherto enjoyed good health, was attacked on March 12th, 1829, with pains in the abdomen, when the catamenial period was just over, in consequence, as she supposed, of catching cold; these pains increased considerably the following day, and compelled her to keep in bed. She complained of a continued throbbing pain on the

Chronic ovaritis presents the same kind of symptoms, though less marked than those accompanying the acute form. Pro-

right side of the abdomen, in the ovarian region, and a violent desire to pass water, accompanied with much painful scalding; the urine red and clear. On closer examination, the abdomen appeared nowhere enlarged or tender, except in the above-mentioned spot, which was somewhat swollen; and pressure here increased the pain considerably. The vagina was hot, but not painful, neither was the rectum; but, upon examination with the finger through this passage, the ovary of the right side of the uterus was found swollen and painful. There was general constitutional suffering; the patient was feverish, with thirst, flushed cheeks, suffused eyes, a white dry tongue, pain of head, pulse quick, but neither full nor hard. She was put on a strict antiphlogistic treatment, and recovered in the course of eight days.

"On the 17th of April of the following year, an alarm of fire in the night was the cause of her catching another severe cold. She passed a sleepless night, had frequent rigors, with pain in the same side of the abdomen as in the former year, and suppression of the catamenia, which happened to be then present. The next morning she complained of dull pain on the right side of the abdomen, in the same spot as formerly, much increased on pressure; but it appeared to be deeper seated this time, and the abdomen was not so swollen. She experienced a constant forcing to evacuate the bowels without effect, but this time she had no difficulty in passing water. The catamenia had ceased entirely, and the vagina felt hot and dry. Introduction of the finger into the rectum produced pain. The ovary was evidently in a state of inflammation, but this time it was more swollen and painful. The constitutional symptoms were more marked during this attack: the skin was hot and dry, and she had much thirst. She complained that her head was confused; the pulse was 126, not particularly hard: the urine sparing and red. She was bled to ten ounces; twelve leeches were applied to the abdomen, which was afterwards fomented with a narcotic application; and she took a grain of calomel every two hours.

"19*th*. Her general condition appeared somewhat improved, but the pain of the abdomen was not abated, and the impulse to strain (during which only a small quantity of mucus passed), was rather increased. The bowels had not been moved, although she had taken ten grains of calomel, and enemata had been instantly returned without effect. Twenty more leeches were applied to the painful spot, and, besides the calomel powders, she was directed to take an oleaginous emulsion.

"20*th*. The bowels acted twice during the night, and the irritable state of the rectum was somewhat diminished, but the pain in the abdomen was not much abated; the pulse continued quick, although neither full nor hard; the heat of surface was moderate; urine red and thick. Ten more leeches were applied. She was directed to rub in a drachm of mercurial ointment every two hours, and take a warm bath.

"22*nd*. The night was passed more quietly than hitherto; the symptoms were diminished. The same remedies were again given at longer intervals, and the warm bath again ordered.

"23*rd*. After a restless night, the local and general symptoms were found again aggravated. Twelve ounces of blood were taken, in spite of her apparent debility. On tying up her arm, she fainted. In order to modify the action of the bowels,

bably some of the most obscure cases occurring in medical practice belong to this class, especially where we cannot trace the symptoms to an acute attack. If considerable thickening or enlargement exist, or if there be fluctuation in the site of the ovary, the diagnosis may be tolerably certain; but in the more frequent examples, where a dull pain only is felt, without any perceptible increase of volume, the opinion must be a doubtful one. If both ovaries are chronically inflamed, or even where only one has been thus affected, disordered menstruation and sterility may ensue; the latter evil being the result of the thickened state of the tunic of the ovary, and of the obliteration of the canal and of the fimbriated extremity of the fallopian tube.

Terminations.—Acute ovaritis may result in the chronic form; and both may terminate in resolution, menstruation recurring; and if the patient have been recently confined, the lochia may re-appear. If death occur in this stage, the ovary scarcely presents any increase of size; but it is red, the vesicles larger than natural, and numerous capillaries traverse its surface.

If the inflammation extend to the peritoneum, uterus and broad ligaments, although it is far more common for the ovaries to become inflamed secondarily, the danger will be increased; but if death takes place, the results of inflammation are not confined to increased vascularity, but there are effusions of lymph, false membranes, and organic changes in the ovary itself.

Thickening and enlargement of the organ is another result. —"Such cases," says Dr. Seymour, "after the commencement of the disease, will often remain stationary and without any inconvenience for many years."

There are examples of the ovary becoming soft and pulpy after an acute attack; and recovery cannot be expected here,

which had been much increased by the calomel, I added a little ext. opii to the emulsion, and stopped the mercurial frictions.

"This last bleeding produced a complete change. The next morning, every feeling of pain had nearly ceased; the action of the mercury began to show itself upon the gums and salivary glands. Her recovery was somewhat retarded, from the nurse's having continued the mercurial frictions the following night, contrary to order."—*British and Foreign Review, vol. II. p. 528.*

more especially as such a form of the disease generally occurs as a complication of puerperal peritonitis.*

The formation of matter, and sometimes in very large quantity, is not an unfrequent termination of both forms of ovaritis. Andral quotes a case where the ovarium contained twenty pints of pus, and Portal mentions ovaria enlarged from the same cause, to the size of an infant's head. Suppuration will in most instances be indicated by rigors, quickness and softness of the pulse, a diminution of the general suffering, and an increase of the local pain, heat, weight, and swelling.

The abscess may empty its contents into the peritoneal cavity, either causing death in a few hours, or adhesion may take place between the surface of the ovary and some neighbouring part, and thus for a time the further escape of pus may be prevented.

It is not uncommon for the matter to point at some spot in the iliac region, and there are many recorded cases where the

* The following case occurred in Guy's, under Dr. Bright's care, in the autumn of 1823 :—"The patient was a young woman of the lowest and most unfortunate class of females.

"She was greatly emaciated, had a very quick and feeble pulse, a shining red tongue, and constant watchfulness. She suffered from constant and irrepressible diarrhœa, and for many successive days vomited both food and medicine: the catamenia were absent. The case made a considerable impression on my mind, from the extreme emaciation and soliquative diarrhœa, without any evident symptom of disease of the lungs or intestinal canal. After having been in the hospital about two months, she suddenly complained of the most acute pain over the abdomen, and in a few hours expired.

"On opening the abdomen, death appeared to have been produced by the affusion of a large quantity of pus into the peritoneal cavity, which escaped from an abscess in the right ovarium, which abscess appeared to arise from suppuration in the substance of the viscus, similar in every respect to phlegmonous abscess in any part of the body, and not connected with any cyst or change or addition of structure, the product of morbid growth."

"Softening also takes place as the result of acute inflammation of these parts. A case recently occurred under my observation, where death, from inflammation of the womb, occurred about three days after delivery. The whole of the cellular membrane under the peritoneal covering of the uterus, and under that lining the pelvis, was in a state of diffuse suppuration, and the absorbent vessels loaded with pus could be traced nearly as high as the diaphragm. The ovaria were in a state of extreme softness, presenting the appearance of a vascular pulp, but no purulent matter was visible."—*Seymour on Diseases of the Ovaria, p.* 38.

abscess has either burst spontaneously or been opened by the lancet.* Occasionally, also, the matter finds exit through the uterus, bladder, or rectum. Such cases I have seen, both in hospital and private practice.

The ovary has also descended, when thus emptied, into the recto-vaginal septum; nor have there been wanting instances where pus has passed through the fallopian tubes into the uterine cavity, whence it has found its way through the vagina. Boivin and Duges remark, that pus has sometimes been discovered in the ovarian veins and lymphatics; and gangrene, although

* *June 6th*, 1844, I was requested by Mr. Watt, of Deal, to visit a lady a few miles from his residence. The patient was young, and had been confined for the first time about three weeks previously. There was nothing unusual about the labour, the child was healthy, and there had been a fair secretion of milk. From the first, however, and even before delivery, she had complained of pain about the uterine region; but more especially, just above the pubis and in the right iliac fossa. The symptoms soon became more acute; the pain intense and preventing sleep, and the pulse rose to 140. Micturition and emptying the bowels produced exquisite suffering; and on several occasions the catheter was used. It did not appear that there had ever been any threatening of general peritonitis, the disease seeming to be confined to the uterus and its appendages. I saw Mrs. B. for the first time early in the morning. She was emaciated, restless and irritable, pulse 120, and compressible; skin soft and moist, indicating declining power; and she was anxious about her state. On the left side of the abdomen pressure was well borne, but on the right, just above the symphisis, she could scarcely allow even the lightest touch; and in the right iliac fossa there was enlargement, but no perceptible fluctuation. Here, also, the fingers could hardly be borne, and it had been throughout the seat of the principal pain. There had been rigors, and daily or rather nightly fever. The os and cervix were swollen and somewhat larger than natural, but without any disease; nor was there more mucous secretion about the vagina than is usual at that period of the puerperal month. Pressure high up the canal and towards the right side gave great pain, and when I passed my finger into the rectum, it was evident that the ovary was enlarged. Under these circumstances, we had little doubt of there being pelvic abscess, and almost as little that the right ovary was its locality. As mercury and the antiphlogistic plan, with leeches, had been fully tried; and as her powers were much exhausted and her mind depressed, we determined to lay aside all medicine except the necessary mild aperients and a light infusion of bark with an opiate at night and generous diet. I heard subsequently of her progress: Mr. Watt, varied the treatment and diet as occasion required, and on the 30th of June he informed me, that a few days previously he had opened a large abscess in the right iliac region. For some little time afterwards she was depressed, and there did not appear any disposition to rally. At the time, however, of his writing, she was going on well; the wound was discharging healthy matter, and the tenderness of the surrounding parts was fast subsiding, the appetite was improving, and she could sleep without the opiate.

exceedingly rarely, and not discovered till after death, is one of the terminations.

Nor will it excite surprise, that the more malignant affections can be traced to the disorganizing effects of acute or chronic inflammation. Melanosis may justly be attributed to exudation of blood into the inflamed tissue, and to the morbid changes subsequently taking place. Ovarian and hydatid cysts, scirrhous, fibrous, and encephaloid tumours, may be traced to inflammatory action and its results.

Treatment.—Whatever may be the result, the treatment itself of ovaritis is fortunately far easier than its occasional diagnosis. When ovaritis is only a complication of puerperal inflammation of the uterus and peritoneum, the same measures may be employed. If the large bleedings and the free exhibition of mercury shall cure the more dangerous affection, it is nearly certain that the ovaritis will be cured also; and if it occurs as an idiopathic affection, it must still be actively and antiphlogistically treated. Bleeding, both general and local, diaphoretics, sedatives, and counter irritation, are indicated. Probably bloodletting to faintness, if the disease is seen in its first stage, will advantageously precede other remedies. Hot fomentations of common gin, the flannel being well peppered before its application, will act as an effectual counter-irritant. Nor is it less important to secure some hours sleep during the night, either by the soap and opium pill or by an opiate suppository. Drastic aperients are to be avoided, but the bowels must be well cleared by calomel and opium, followed either by castor oil, a mild cordial aperient, or by an unstimulating enema.

Local bleeding is an invaluable auxiliary, and the leeches may be applied either to the groins, vulva, or anus, and where the affection is isolated, to the cervix uteri.

If matter does form, we must watch its progress; for it may point either in the iliac fossa itself or lower in the groin. If the pain be not acute, or the patient too much exhausted, we may permit the abscess to burst spontaneously; but if from feeble powers, or the thickness and induration of the integuments, this may be a prolonged process, then we may open it either by the lancet or caustic. The former is the easier; the latter, from its producing adhesions between the ovary and

peritoneum, and thus preventing the escape of pus into the peritoneum or cellular tissue of the pelvis, is the safer method. If matter be discovered through the walls of the vagina, an opening may be made either with a small trocar or lancet. Doubtless, in cases so full of interest, every precaution will be observed, both as to the general treatment and the evacuation of the pus. It can scarcely be too strongly urged, that sexual intercourse be avoided for some time; at least till the health is restored, and the local ovarian irritation has subsided. The published cases prove, that in some instances there is a proneness to the repetition of the malady.

Chronic ovaritis requires little modification of this treatment. The same active depletion will be unnecessary; but in its stead local bleedings and stronger counter irritation may be employed. Iodine and mercury, especially in combination, are useful, particularly where enlargement or thickening have occurred. Pains, lasting for many months, not acute, but dull and heavy, frequently exist in the region of the ovary. These, probably, are the consequence of chronic inflammation; and I mention them, because they are too often regarded as neuralgic, and treated accordingly, painful menstruation and sterility, lasting for several years, being their results. I have lately had under my care a case of this kind, and I see many. In this instance there had been two attacks of acute ovaritis, both idiopathic. Since the last attack, now several years ago, the patient has always suffered from ovarian pain, aggravated at the monthly periods, and by excitement. Iron, mineral waters, riding on horseback, and walking exercise, have been tried; but with no other effect than an increase of her sufferings. Three leeches over the most tender parts of the iliac fossa, once every four or five days, and occasional leeching of the cervix uteri, with warm alum hip-baths, and a course of hydriodate of potass and infusion of bark, with mild opiates, have entirely removed these harassing pains. This plan was followed for eight or nine weeks, during which time she was hardly allowed to stir from the sofa.

DROPSY OF THE OVARY.

It is undoubtedly true, that of all the forms of abdominal tumours, excepting, of course, the tumour of pregnancy, there are none so common as those which originate in the uterine appendages, particularly in the ovaria. These tumours, notwithstanding differences in their pathological nature and history, have, when containing fluid, been indiscriminately denominated ovarian dropsies. Let it be remembered, however, that, unlike most other forms of dropsy, the fluid here is encysted, not diffused; and that, unlike ascites, so often the consequence of visceral disease, ovarian accumulation commences from derangement of the ovary itself, and frequently for a long period, especially if confined to one ovary, exerts scarcely any injurious influence on the constitution.

It is common, in the classification of ovarian tumours containing fluid, to enumerate as distinct forms some which rarely ever attain sufficient volume to rise out of the pelvis, and which are scarcely therefore appreciable by touch. This may be pathologically correct, but they can only be regarded as subordinate varieties, seldom requiring medical aid, at least in comparison with encysted dropsy of the organ, with the ordinary history of which we have unhappily too many opportunities of becoming acquainted. Of these less important tumours,

The first are *simple bags or cysts containing serum*, attached either to the surface of the ovary, the broad ligaments, or fallopian tubes. They seem to be endowed with all the functions of the peritoneum, and to receive their blood vessels from the point of their origin. These vesicular cysts are very common, sometimes congenital;* and generally small and pediculated, although they may attain to the size of an orange, or perhaps even to a still greater bulk. We have in Guy's Museum two

* Guy's Museum, preparation 2251, uterus and its appendages from a child. The fallopian tubes tortuous and distended by scrofulous or cheesy matter. A small peritoneal cyst is attached, by a long slender peduncle, to one of the tubes near its fimbriated extremity.

specimens of this simple cyst developed in the broad ligament, and decidedly within the natural fold of the peritoneum.

In one preparation, although the tube passes round the cyst, it is not materially changed from its natural condition, nor does it communicate with the cyst. The ovary, too, on this side is healthy. In the second specimen, where the cyst is of larger size, and developed also in the broad ligament, the fallopian tube is on the outside; but there is no ovary; so that it is not certain if the cyst may not have originated in disease of the ovary itself.

The *second* variety comprises *dilatation and dropsy of the fallopian tube*. We have several preparations of greatly dilated fallopian tubes—a state probably not infrequently resulting from inflammation of the mucous lining—and there are two or three specimens of serous cysts developed in their parietes, but not communicating with their interior.* It is well known that these canals are often filled with serous fluid, their closure at one or both extremities having been previously produced by inflammation. I have seen these pouches of considerable size, but never of such volume as to attain an elevation above the pubis. Dr. Seymour has given a plate of a preparation in the Museum of the College of Physicians, which would contain half a pint; and De Haen relates a case in which the fallopian tube weighed seven pounds, and the cavity contained twenty-three pints of fluid; and, he says, in other instances the quantity has been still greater. It may be remarked, that one of the most common morbid appearances, presented after death, by these canals, is the preternatural adhesion of their fimbriated extremities to the ovaries; a result of irritation and inflammatory action, often produced by excessive and licentious sexual

* Guy's Museum, preparation 2252, a uterus and its appendages, with adhesions binding down the fallopian tubes; one of them closed at its extremity by its adhesion to the ovary, and partially dilated.

Preparation 2253, uterus and fallopian tubes; one of the latter greatly distended; it appears to be closed toward the uterus. The other, which is but little dilated, communicates, by a large opening, with the cavity of the uterus.

Preparation 2254, a half of the uterus, with the corresponding fallopian tube, which is obstructed at both extremities, and was greatly distended with a dirty brown puriform fluid.

intercourse. Sometimes, also, these tubes are distended by purulent and scrofulous deposits.

A *third* form of ovarian dropsy, *consisting of a single cyst*, is attributed to morbid accumulation of fluid in one or more of the Graafian vesicles. Such are often met with in the dead body, where the history during life does not disclose any marked symptoms of disease. I have often seen the parietes of these cysts thick and fibrous; and their serous lining in such a state of vascular excitement, as would justify the conclusion, if life had been continued, that they might have grown into large unilocular cysted dropsy. This variety is certainly uncommon; but I believe that large cysts of the kind, eventually engrossing the whole structure of the organ, do occasionally exist. Whether they arise from dilatation and degeneration of the vesicles is a controverted point, although it seems to me highly probable.

We have not in Guy's Museum any preparation of ovarian cysts containing acephalocyst hydatids.*

Having disposed of these less frequent varieties of ovarian tumour, we come to the most common form, generally denominated "Encysted Dropsy of the Ovary." This may be regarded as a specific disease, consisting in a peculiar change of structure, and sometimes, but certainly not invariably, assuming in its progress, almost every variety of malignant action. At page 382, I have said, "from all which has yet been observed and settled as true, it may, I think, be assumed, that the most frequent primary locality of cancer is not in the blood, but in the molecular structure of organized tissues or parenchymata, and that the deposit of the morbid material is dependent on perverted nutrition or secretion." Dr. Bright, supported by the demonstrations of Dr. Hodgkin, "that in many malignant growths, there is a regular cellular arrangement," has endeavoured to prove, "that malignant disease originates more peculiarly in the cellular tissue of the body, first displacing, and then gradually involving and implicating the proper structure of the organ in which it is developed." Encysted dropsy of the ovary, he says,

* In the Philosophical Transactions, No. 140, Sampson describes an ovarian tumour filled with hydatids, containing 112 pounds of fluid; and another case is mentioned by Willi, where the tumour weighed above 100 pounds, and contained partly hydatids and partly gelatinous fluid.

affords some marked examples and very striking modifications of this fact; "illustrating the extensive growth and propagation of malignant disease in the loose cellular tissue of an organ, the more essential parts of which seem to present, in their natural structure, a prototype of that involved system of cellular arrangement observable in malignant growths." These opinions are probably correct, and yet there are not a few examples of encysted ovarian dropsy, where, after many years' duration and frequent tappings, the disease still consists of a simple cyst, filled with a serous, or from inflammatory action, a muco-purulent fluid. Nevertheless, encysted ovarian tumour may co-exist with true malignant disease of the ovary, or may become the seat of malignant deposit; and most pathologists know, if it has no tendency to become a constitutional disease, it spreads to neighbouring parts, and by mere continuity of structure, seems to amalgamate them into one common diseased mass (vide case). Whether this form of ovarian dropsy originates in the loose cellular tissue of the organ, or in the vesicles of De Graaf; whether, in other words, new structures in the form of cysts have been created, is, and perhaps will remain, a disputed point. I have sometimes thought it quite impossible, that the very numerous larger and lesser cysts, cavities, and vesicular bodies, seen after death to have made up the bulk of an ovarian tumour, could have originally formed any portion of the normal structure; and "yet, when we look to a portion of loose cellular tissue which has been distended with air or filled with serum, we find no apparent want of cellular cavities, to bear out the possibility of a contrary supposition."

The name *multilocular cystic dropsy*, often given to this disease, derives great propriety from the fact, that there is rarely only one cyst. Generally we have many in a state of progress, some not larger than a walnut or even less; others of the size of an orange or a turnip, and one probably of vast bulk, capable of containing ten, fifteen, twenty, or even thirty pints of fluid, thus giving to the tumour many of the properties of a unilocular cyst. Sometimes the cysts are smooth on their inner surface, or they may be studded with small malignant tumours. Their thickness is occasionally not more than that of a bladder, while at other times (vide cases), it may exceed several inches,

and have become in some parts nearly solid. Their contents are exceedingly various; from simple serum to mucus and pus, not excluding gelatinous and melanotic fluids, and the more solid atheromatous, encephaloid substances. Bone, teeth, hair, and even calcareous substances have been found. Usually, however, they contain serum more or less viscid and gelatinous, and of a pale straw colour. Not unfrequently it is dark as coffee-grounds, or like dissolved currant jelly, evidently from effused blood, and of offensive smell. In some instances it is too thick to pass through even a large trocar, and these are generally cases of multilocular cyst, with irregularly thickened parietes. Nor is it uncommon for the interior of the cyst to be studded with malignant knobby excrescences, likened by Burns to the cotyledons of the gravid uterus of the cow. Such growths, even were there a predisposition to the obliteration of the sac by the growing together of its sides, would prove an insuperable obstacle. Where there is only one cyst; or where there is one very large and other smaller cysts, the contained fluid is generally more serous; but this may not continue to be its character after repeated tappings. It is a curious fact, that the different cells of the same ovarian tumour are filled with different fluids: thus one large compartment may contain limpid serum, another a jelly-like secretion, and a third a fluid different from either. In the denser secretions it is not very unusual to find fat, hair, and imperfectly organized teeth. As these substances have been discovered in virgins, where the hymen was entire, they can scarcely be attributed to conception, subsequently interrupted and rendered abortive. How far such development may have resulted from excited and disappointed sexual feeling, it would be difficult to determine; but the more probable explanation is, that such products are the consequence of the confusion of two separate ova at the time of impregnation; one having been inclosed in and partially developed by the more perfect being.* It may also be mentioned, that these substances have been

* Dr. Hodgkin, in his Catalogue of the Preparations in the Museum of Guy's Hospital, says, "It is not impossible that twin conception may take place in such a manner that the rudiments of one fœtus may be enveloped in those of another." Not only is the idea supported by the analogy with some of the inferior order of animals, but instances, like that perserved by Dr. Highmore, in the Museum of the College of

found in parts of the system having no connection with the organs of reproduction. Dr. Gordon of the London Hospital met with a tumour in the anterior mediastinum, containing a portion of the superior maxillary bone, some hair and teeth; and Sir Benjamin Brodie found several well formed teeth in the bladder.

If there be great variety in the size of ovarian tumours, in the density of their external coverings, and in the nature of their contents; there is scarcely less diversity in the number of the cells, and in the thickness of the septa which separate them. In most of these compound ovarian dropsies, the number of cysts is very considerable; as the larger cells have series of smaller ones developed and in the course of growth on their internal surface, so that when the disease has attained great bulk, this creation of subordinate cysts is almost interminable. Sometimes these cysts are separated from each other by thin and transparent septa; in which case, it is possible that the sudden evacuation of one cyst may lead to the rupture of the separating wall and the evacuation of the contents of a second. This will, however, but rarely happen; as the septa are often thick, sometimes even more than an inch; so that if there be many such separations, it is quite possible that the solid part of the growth shall exceed the fluid contents. The parietes, originally composed of fibrous or fibro-cellular tissue, are liable to great changes in the progress of the malady, and not unfrequently themselves become the seat of various diseased deposits. The interior of the cysts presents, as already observed, various appearances; sometimes it is smooth and glistening, like the free surface of the peritoneum; but occasionally it may be seen more like a mucous surface, with adherent lymph and other results of local inflammation. Blood-vessels ramify freely on the inner surface of the primary and secondary cysts, furnishing an ample supply of blood, and satisfactorily explaining their occasional rapid advancement prior to tapping, and the rapid re-accumulation of the secreted fluid after paracentesis. The ad-

Surgeons, "where there is an imperfect fœtus and part of the viscera surrounding it, taken from the abdomen of a lad about 16 years of age," would almost defy any other explanation.

hesions of large cysts to the neighbouring viscera, and the thickness of their peduncles, are points of great interest in reference to extirpation.

Dropsy of the ovary is not confined to married women, or to those who have borne or are still bearing children. Single women are, taking a given number, and comparing them with an equal number of married females, most liable to the disease; nor does the affection, according to the opinion of many, prevail towards the decline of life. It is most frequently seen between the ages of 20 and 35; when the patient is in the prime of her womanhood, the reproductive organs active, and if not healthily employed, their very activity becoming a cause of disease. Ovarian encysted dropsy seldom shows itself before 20, although I have seen several examples much earlier; one, in particular, where the patient had not reached the 18th year, and where the ovarium must have contained many pints of fluid. The disease had been stationary for two years, having commenced at 14, contemporaneously with menstruation; and as her health was not at all injured, I was asked whether she might not be married. I discouraged her from the step; but in a few months she became a wife, and has subsequently borne several children, without any aggravation of the malady. It is not common for both ovaries to be affected, although there are a good many such cases recorded. It more generally happens that one ovary alone is the seat of the disease, menstruation and the capability of conception being but slightly interfered with. It has been conjectured by some, that the left ovary is more frequently affected. In the cases I have seen, this preponderence has not existed.

Symptoms.—A tumour in one of the inguinal regions is usually the first symptom recognized by the patient. It will be found to arise out of the pelvis, either on one or the other side, and may be firm and smooth, or lobular and uneven. It is seldom painful, but may not be altogether devoid of uneasiness; and I have sometimes been surprised to ascertain, that a tumour of this kind should grow sufficiently to reach the pelvic, and even the umbilical region, and have lost all trace of a lateral origin, without having once seriously excited the patient's

attention. The process of growth varies greatly: for a time it is slow, and may be scarcely noted even from year to year; soon however, from some unknown cause, sudden and rapid increase takes place; so that in a few weeks or months the disease may become large enough to fill nearly the whole abdomen, presenting the appearance of a pregnancy far advanced. Even after this, it may become stationary, and patients often lull themselves into the belief, by measuring inaccurately and by making the best of their inconveniences, that further accumulation does not occur. But it is only necessary to watch these cases from week to week, and we are soon convinced, that the tumour becomes more tense, the fluctuation more distinct, and the breathing more embarrassed. In a little longer time, increased evidence of pressure is derived from accumulation of serum in the cellular membrane of the lower extremities, in the enlarged and dark appearance of the superficial veins of the abdomen, and in general distressing discomfort. Sometimes up to this period there is not any severe suffering, and in the earlier stages of the disease, there are no indications decidedly diagnostic. The sense of weight, dragging, and irritation are common to so many uterine affections, that they cannot be relied on. Not unfrequently, even at an early period of the enlargement, there is edema, numbness and hemorrhoids; more rarely dysuria and diarrhœa alternating with constipation. Burns says, that pressure upon the rectum, by arresting the progress of the intestinal contents, sometimes gives rise to great distension of the bowels, and also to dilatation of the uterus. Dr. Lee details a case, where an ovarian cyst, having become firmly impacted between the bladder and rectum, produced all the symptoms of stricture; and in another instance, the neck of the bladder was so pressed upon by an ovarian or uterine tumour in the pelvis, that it was impossible for the bladder to be emptied without the use of the catheter. In such examples a tumour may be found between the vagina and rectum. Often medical aid is not sought till the evils here described have reached such a point, especially the embarrassment of respiration and the painful tension of the tumour, as to render tapping indispensibly necessary.

The surface of an ovarian tumour is often quite smooth, or it

may be tuberose; the walls may be thick and fluctuation indistinct; or the parietes being thin and the abdominal integuments attenuated, fluctuation may be perfectly evident: it must, however, be remembered, that this sign is less manifest in small than in large ovarian tumours. The uterus is higher than natural, and the cervix is often elongated when the cyst is large and greatly elevated towards the epigastrium. Burns thus describes the progress of the malady:—

"In the course of the disease, the patient may have attacks of pain in the belly, with fever, indicating inflammation of part of the tumour, which may terminate in suppuration, and produce hectic fever; or the attack may be more acute, causing vomiting, tenderness of the belly, and high fever, proving fatal in a short time; or there may be severe pain, lasting for a shorter period, with or without temporary exhaustion, and these paroxysms may be frequently repeated; but in many cases, these acute symptoms are absent, and little distress is felt until the tumour acquire a size so great, as to obstruct respiration, and cause a painful sense of distension. By this time the constitution becomes broken, and dropsical effusions are produced. Then, the abdominal coverings are sometimes so tender, that they cannot bear pressure; and the emaciated patient, worn out with restless nights, feverishness, and want of appetite, pain and dyspnœa, expires."—(*Midwifery*, *p.* 84.)

Diagnosis.—The lateral situation of encysted dropsy, and its commencement in one of the iliac regions, is a point commonly dwelt on as important in its diagnosis. This circumstance does not always serve us; as the tumour often advances early towards the mesian line, and meeting with little resistance in that direction, soon takes up a central position in the abdomen. Slow progress is in most cases a condition of ovarian tumours; but we have seen already how suddenly they may advance.

As the ovarian mass grows, it rises in the abdomen, and pushes the intestines upwards, laterally and behind; thus establishing a distinction between extensive ovarian dropsy and ascites, by the dull sound elicited on percussion anteriorly, in the more prominent parts of the cyst. In ascites, on the contrary, if the peritoneum be not diseased, the intestines usually float in the secreted fluid, and in the umbilical and epigastric

regions, where they lie; a distinct resonance follows percussion. In ascites, the effused fluid always sinks to the inferior part of the abdominal cavity, and will gravitate towards the lowest point, if the patient be placed in different positions; while in ovarian dropsy there will be comparatively slight change in the situation of the fluid. Nor must it be forgotten, that ovarian enlargement is circumscribed; while ascitic accumulation is diffused, and has a more decided sense of fluctuation.

Where the cyst is yet contained within the pelvic cavity, it will be necessary to examine carefully, both by the vagina and rectum. If the finger be introduced into the bowel, it is possible to feel the posterior part of the fundus uteri above the tumour; and in this way, in a case I saw with Mr. Baily of Limehouse, enlargement of the second ovary was ascertained.

From *retroversion of the uterus*, dropsy of the ovary may be distinguished by its slow progress, by the absence of the symptoms marking the invasion and continuance of the former malady, as well as from examination by the vagina and rectum.

It is not always easy to determine that *pregnancy does not co-exist*. In most cases careful and repeated examination will establish a just diagnosis. It will often be difficult, especially where the ovarian growth is small, to determine its precise character, and to distinguish it from tumours growing from the cellular tissue of the pelvis, and lodged between the vagina and rectum.

When encysted dropsy has risen into the abdominal cavity, it will have, in some instances, to be distinguished, not only from *ascites*, but *from pregnancy*, a *distended bladder, and from malignant disease of the ovary*.

From *pregnancy* the distinction is often difficult and perplexing. At page 344, I have narrated a case, where the diagnosis was of this kind; and in a lady lately under my care, the wife of a surgeon, it was not till the sounds of the fœtal heart were distinctly and repeatedly heard, that we could feel satisfied of the existence of this state. But even the stethescope must not in every instance be relied on; for the "placental souffle" may be accurately imitated by the pressure of an ovarian tumour on the iliacs, or on any of the large abdominal vessels. Still an attentive collection of the signs which usually charac-

terize pregnancy, even when complicated with tumour, will go far to narrow the ground for hesitation, and every day will tend, if it be pregnancy, to render the case more clear.

A *distended bladder* can only by great carelessness be mistaken for ovarian dropsy: the catheter, which should always be used when there is the slightest doubt, will establish the diagnosis.

From *malignant disease of the ovary without effusion*, it will generally be distinguished by its manner of growth, its slow progress, and accumulation of fluid; but there are many cases of ovarian encysted dropsy, in which it is impossible, from the beginning to the end, to make any marked distinction between it and malignant disease; and after death it is often quite impracticable, in the disorganization which has taken place, amidst the cells, indurations, fungoid growths, and diseased secretions, to point out the tissue in which the cyst containing the principal fluid had been first developed.

But perhaps the most difficult part of the diagnosis has reference to the dropsy itself. It may have been distinguished from other affections; but we are anxious to know, whether in the case under notice, there be few or many cysts; whether the fluid be extremely viscid or merely serous; whether there be scirrhous growths or other decidedly malignant affections complicating the principal disease; and, if extirpation be contemplated whether there be a narrow or broad and solid peduncle; and whether there be few or serious adhesions, rendering the tumour almost immoveable. Some of these questions may be answered with tolerable accuracy; but the most important can, for manifest reasons, receive only an unsatisfactory, because most uncertain reply.

The extent of the tumour may generally be ascertained by a careful examination of the abdomen by touch and percussion; except in those cases where it is so large as entirely to fill the whole abdomen, leaving unoccupied only the hollow spaces of the diaphragm and loins, and the cavity of the pelvis. A careful observer will be struck by the different appearances presented merely to the eye; sometimes inequalities on the surface mark the probable existence of several cysts; while, in other examples, the tumour is of rounded form, being thus in

some measure distinguished from the more ovoid shape of ascites and the pregnant uterus.

Firm pressure over the abdomen imparts a sense of extensive fluctuation, and brings us acquainted with any inequalities or indurations which exist in the parietes of the cyst itself; and considerable tact is sometimes required to distinguish these from the liver, spleen, or kidneys. I have often known experienced pathologists hesitate as to the nature of these enlargements in or about an ovarian tumour.

The sense of fluctuation is not uniform throughout the whole cyst. Sometimes it is indistinct below, where there may be great tension; and evident above, where the growth is less confined. In repeated examinations, it may be distinct in one part and only slightly perceptible in another; proving, the probable existence of a large and several smaller cysts. I saw a case lately, where there was fluid in the abdominal cavity, and it covered, when the patient lay on her back, the anterior surface of the cyst, the solid, resisting feel of which, at once become evident, when this layer of fluid was removed by careful manipulation. The advantages of percussion are great in marking the progress of the disease, and in detecting the situation of the different abdominal viscera, and it may also, by the knowledge it thus affords, prevent the introduction of a trocar at a thick and solid part of the cyst. Nor is it unimportant, prior to the operation of tapping, to examine the state of the integuments underneath the skin, not only to ascertain whether there be any indurated deposits; but also whether there be extensive adhesions between the cyst and the adjacent peritoneum or viscera. If such exist, the tumour will be moved only with the integuments, and these latter can scarcely be rubbed freely over the prominent part of the growth or gathered up in the fingers.

Ovarian dropsy has been mistaken for ascites; but in addition to the circumstances already mentioned, it may be remarked, that whilst in the latter disease the secretion from the kidney is diminished, in ovarian dropsy it is hardly interfered with, till mechanical pressure is made on the kidney, by the large and perhaps almost entirely solid ovary. Nor is the general health, as in ascites, early affected, the animal functions being seldom disturbed till a late period.

Organic diseases of the other viscera have been mistaken for ovarian dropsy. Enlargement of the liver increases downwards and towards the left side; enlargement of the spleen grows laterally, beginning from the left, and encroaching inferiorly towards the right; while a thickened omentum exists from its commencement as a solid tumour, without even the semblance of fluctuation. Still it must be kept in view, that mistakes, totally inexplicable on any supposition either of want of knowledge or want of caution, have been committed by the most eminent practitioners.

We must therefore be especially attentive not to be misled by accumulations of air or feculent matter in the intestines, which may, from their frequent recurrence, have imparted an almost permanent character to the enlargements they have produced. In no other way is it possible to explain the disappearance of tumors, thought to be ovarian by Lizars, till an incision has been made for their extirpation, when substances, the existence of which would have been most strongly affirmed a few minutes before, were no longer to be felt.

Prognosis and Terminations. — The progress and termination of encysted ovarian dropsy, have become subjects of the deepest interest, owing to the efforts lately made to cure the disease by extirpation. Whether this be a desirable, or even a defensible operation, must mainly depend on the known course of the disease, when either left to itself or treated with a view to palliation only. If it could be proved, in the majority of cases, that the malady did not shorten life nor induce severe suffering, few more operations would be undertaken. But the examples of this kind are, it is to be feared, only exceptional; and yet I cannot divest myself of the idea, if our records were accurately kept, that a more favourable view might be correctly taken of the palliative, or indeed of any treatment which did not involve the necessity for this hazardous extirpation. Certain it is, that *many* women have lived to old age, who were the subjects of the disease; and although a less number comparatively survive many years after tapping has become necessary, yet a collection even of these would go far to prove, that paracentesis is not by any means so fatal in this respect as has been supposed. Sabatier examined the bodies of

several women who had carried these encysted tumours during half a century, without alarming derangement of health; and the memoirs of the French Academy of Surgeons prove, that it may last 58 years; while Nauche, as a summary of his own views, says, "dropsy of the ovary, then, is not a very alarming disease, unless it be very ancient and very voluminous." The cases of frequent tapping recorded by Martineau, Portal, and many other surgeons, amply attest the protracted duration of life in association even with this stage of the affection. Nor, in a calculation of this kind, must it be forgotten, that numerous women have become pregnant, and have been many times safely delivered, notwithstanding a dropsy of one of the ovaries. Such cases have fallen under my own observation, and I could add others also where the malady, although of considerable size, has existed many years without tapping, and without indeed any other than mere palliative treatment.

These considerations are entitled to great weight when determining the propriety of extirpation, uncalled for by present and great evils; or where the operation, from the enthusiastic views of its patrons, is urgently recommended as a preventive of mischiefs which they deem, but not always on good grounds, to be prospectively inevitable. To operate, where the patient strongly desires it, from a conviction that her sufferings and the frequent repetitions of paracentesis, will otherwise prove speedily fatal, may not involve any distressing responsibility, especially where the condition of the tumour leads to the supposition, that the case is pathologically a favourable one. But there are examples selected for operation far different from this. Take, for instance, a case which occurred to me a few months ago. A lady travelled to town from a considerable distance, anxious to have extirpation performed. On inquiry, I found she was 62 years of age, had never been tapped, although ovarian dropsy had existed for more than half her life. There was scarcely any suffering beyond weight and pressure, although the tumour was of immense size and partly solid. In such a case, it would have been highly culpable to have operated; and yet a surgeon, over zealous about the removal of ovaries, had induced the firm belief that it ought to be done. I need scarcely add that the patient, after being made acquainted with

the great danger of the operation was perfectly satisfied to remain as she was. Nor will the practitioner be less perplexed and distressed by such a case as the following, which occurred within my observation not long since:—A young woman, under 22 had ovarian dropsy; her countenance bespeaking excellent health, and her history confirming the impression. Without interference, many years might have been added to her existence; and as one of the fortunate incidents of life, it might have so happened, that the tumour should cease to grow. But unhappily she was convinced that extirpation was proper; the operation was most ably performed, and in a few days she died. These certainly are not the cases in which removal ought to be practised. If the operation is to become established, of which I have the strongest doubt, it must be confined to examples of the malady where tapping has already been so often performed as to preclude, from the experience of similar cases, any idea that it can ever be dispensed with; and where, we are confident, that great suffering must lead to early death. Perhaps this may be regarded as too limited a view of the value of extirpation, but it is, I think, the correct one. In such cases, if the diagnosis excludes the belief that there are serious adhesions, or malignant and solid growths complicating the tumour, and if the patient strongly desires it, the operation is defensible. In all other examples it can only rest on the patient's own views of her future prospects, and on a calculation of chances. She might live many years and without much suffering; but she may die in a few years after great suffering: she determines, therefore, being courageous, and probably strongly urged by her surgeon, to run the risk of immediate death for the hope of immediate and radical cure. Whether she has done wisely to submit to such a hazard, a successful operation can scarcely prove; that she has happily secured her safety, through imminent peril, such an operation does prove. Lithotomy, operations for hernia, and for securing large arteries, rest on different grounds. That they are essential to the patient's life, is a full justification of their performance; for in all, even if not dangerous at the moment, it is certainly known that life will soon be destroyed, either by fever, gangrene, or loss of blood. Such, it has been proved, has not been the case in many of the fatal operations lately performed

for extirpation of ovarian encysted tumours. It does not appear that statistics more favourable even than we have any right to expect, will materially change the aspect of the circumstances under which this operation is to be performed. It must, probably, from the impossibility of determining the real character and adhesions of the growth, ever remain an eminently uncertain operation. The extirpation, we are assured, by the operators themselves, in a fit case, is far from difficult—would that it were more so—for then it would not be so readily undertaken. If it required as much surgical knowledge and skill to make these large and brilliant abdominal incisions, as to tie the subclavian artery or to perform a trying operation of lithotomy, the lives of many women would have been already spared, and fewer would be sacrificed for the future. What would be thought of the feasibility of any other operation involving life in the most imminent haxard, if we discovered that out of 67 cases where it had been attempted, it was, *from absolute error of diagnosis, incapable of completion in eighteen;* that of the remaining 49 patients, where the extirpation was effected, *sixteen died* and *two were not cured;* so that out of the whole number 67, *the operation failed in thirty-six and succeeded in thirty-one,* less than one-half. Such results are distressing, especially when we hear no greater doubt expressed about the operation itself, but only higher confidence in its value, and greater laudation of the operators. We willingly concede presence of mind and ability to many of the extirpators of ovarian cysts; but we are unable to discover (for the later operations have been quite as unsuccessful from unfitness of the cases as the earlier ones) that any advance has been made in diagnosis. Nor, when the tumours themselves are examined after death, when the malignancy of many of them is recognized, and their firm, almost indivisible adhesions, and their immoveable masses of new and morbid substance are brought to view; it is next to impossible to entertain any sanguine hope, that our means of diagnosis can ever be much improved.

I have never known a case of absorption of the fluid of an ovarian dropsy; but such are recorded. Denman and Hamilton are somewhat sanguine on the point. The former says,

"that in several cases the disease has been removed without the use of any medicine, or any adequate evacuation, or his being able to discover how the fluid was carried off."*

Dr. Hamilton confirms these views by stating, that after 16 years trial, he has succeeded in a number of cases, in curing or retarding the disease, by firm compression of the abdomen, percussion, the warm bath, large and long-continued doses of the muriate of lime in association with means for the improvement of the general health. This, it is to be feared, is too favourable a representation; and all which can be granted is, that in some few examples the effused fluid does appear to have been absorbed, or at least to have disappeared.

Adhesive inflammation sometimes takes place between the serous covering of the tumour, and some of the neighbouring viscera, as the colon, vagina, bladder, or small intestines; and if ulceration occurs, a rare event, the fluid is evacuated and temporary relief obtained without tapping, and, according to Denman and Seymour, a perfect cure has been the occasional result.

I have had a case under my care lately at Kensington where the sac from time to time opened externally, through the umbilicus; thus, by a natural tapping, relieving all the symptoms. At length, however, inflammation arose in and about the cyst, and death quickly followed. This spontaneous relief had existed for more than three years.

Dr. Blundell saw a patient at Guy's, where the enlargement of the abdomen was occasional, and the woman got better repeatedly, after large spontaneous eruptions of water, by vomiting and purging. He had no doubt that the dropsy was ovarian, and in all probability the cyst occasionally opened into the intestines by ulceration or rupture, thus evacuating its contents. Many cases of this kind might be adduced; but although the operation of tapping is dispensed with, the cyst neither becomes obliterated, nor does it cease to secrete.

Occasionally the tumour is attacked by inflammation, and the patient dies either in a few days or soon after the occurrence of

* In a case related by Denman, of enlarged ovary, a great quantity of gelatinous matter was passed by stool for three successive days. The tumour lessened in proportion to the discharge, and ultimately disappeared entirely.

suppuration. This may happen independently of any measures employed for the cure of the malady, but most generally it occurs after tapping.

Treatment.—Much cannot be expected from medicine in this formidable disease; although remedies as powerful as iodine, mercury, and the strongest diuretics have been and ably perseveringly used. The radical cure contemplates, by some means or other, the removal or complete obliteration by adhesion of the sides of the cyst.

At a very early period, and while the tumour is still within the pelvic cavity, it has been alledged by some practitioners, that various medicinal agents might, if they do not produce absorption, at least restrain further progress; but I have already remarked that Denman* and Hamilton's opinions on the subject, have not been confirmed by subsequent experience. I have sometimes found in the early stage of the disease, that local bleedings by leeches, followed by repeated blisters, kept on only for a few hours, and succeeded by linseed poultices for several days, have not only retarded further growth, but have even dimished the absolute bulk of some incipient ovarian tumours; and I wish especially to observe, where this plan is intended to be beneficially followed, that the recumbent posture, avoidance of

* "In the beginning of this dropsy, when the increasing ovarium is first perceptible through the integuments of the abdomen, and sometimes in its progress, there is ofen so much pain, as to require repeated local bleeding by scarification or leeches, blisters, fomentations, laxative medicines and opiates, to appease it. I have also endeavoured to prevent or remove the first enlargement by a course of medicines, the principal of which was the ung. hydrarg. rubbed upon the part, or calomel given for a considerable time in small quantities, with an infusion of burnt sponge; or the ferrum tartrizatum or ammoniacale; trying, occasionally, what advantage was to be obtained from blisters, from a plaster composed of gum. ammoniacum dissolved in the acetum scillæ; or, lastly, from electricity. From all or some of these means, I have frequently had occasion to believe some present advantage was obtained, or mischief prevented; but when the disease has made a certain progress, no method of treatment has hitherto been discovered sufficiently efficacious to remove it or prevent its increase."—*Denman's Midwifery, p.* 81.

"When they (diuretics) produce any effect, it is chiefly that of removing dropsical affection combined with this disease; and in this respect they are most powerful immediately after paracentesis. With regard to their power, or the power of any other medicine, of diminishing the size of the ovarium, my opinion is, that they have no more influence on it, than they have over a melicerous tumour on the shoulder, or over the disease when it occurs in the testicle, or over the configuration of the patient's nose."—*Burns' Midwifery, p.* 141.

sexual excitement, and great physical fatigue, are indispensible conditions. Drastic purgatives, as they do not produce any effect on the contents of ovarian cysts, ought to be sparingly exhibited. Perhaps they should be limited to those cases where ascites co-exists with the ovarian effusion. Mercury and iodine may be given up as remedies possessing any absorbent power; they are therefore to be used only with the view of remedying hepatic and glandular derangement, and of improving the general health. Either of these powerful agents, when given to excess, may break down the constitution and hasten the progress of the disease. The muriate of lime, so strongly recommended by Professor Hamilton, I have seen very largely tried, but without any marked benefit.

There are effects consequent on ovarian growths, while yet in the pelvic cavity, and of small size, which claim attention. Pressure on the bladder and rectum occur, requiring the catheter, enemata, and sometimes an alteration of the position of the tumour itself, by raising it higher, and if possible above the pelvic brim. It may, however, happen, that the growth has already contracted adhesions with surrounding parts, in which case protracted or powerful attempts at elevation may induce inflammation. Cramps and numbness may be relieved by friction with stimulating liniments and the horse hair glove.

Pressure by elastic belts or bandages is of old date, but it has probably done more harm than good. In uterine fibrous tumours, it has often excited increased growth, by the discomfort and pain it has produced; and there is every reason to suppose, if carried to any undue extent, it would produce the same effect in ovarian cysts.

Dr. Hamilton used a knobbed instrument for percussing these tumours in the intervals of the pressure; but even in Edinburgh, the practice is entirely abandoned. In the chapter on the "Induction of Premature Labour," a detail is given of the methods to be pursued when ovarian tumours complicate pregnancy and labour.

When the dropsical cyst has become so large and tense as to impede the functions of life, or to endanger its own rupture, tapping is our only resource; we evacuate the fluid by making an incision through the integuments, and draw it off by a canula.

This is generally, but not invariably, a simple operation, and it is undoubtedly one of the safest of all the expedients for giving temporary relief. It does, however, generally happen, when the fluid has once been evacuated in this way, it rapidly re-accumulates, and it is often a matter of surprise that the operation should so quickly require to be repeated, and that in the aggregate so large a quantity should have been secreted.*

Frequent repetition, however, must be expected where the tumour is growing rapidly. The secreting or exhaling surface, especially if the dropsy consist of only two or three large cysts, becomes more extensive in proportion to the increase; and the arteries of the lining membrane, pressure having been taken off by the withdrawal of the fluid, will secrete more rapidly and largely. We cannot wonder, therefore, at the anxiety of practitioners to delay the first operation as long as possible, although it be the safest of our palliative resources. If the fluctuation is very indistinct, it may be presumed, that the tumour is divided into many cells, or that the secretion is remarkably viscid. But even here paracentesis should be practised; as, although the relief be but partial, it may be sufficient to save the patient from the risk of suffocation, and to permit the kidnies and ureters, if they have been interrupted in their functions, again to perform them.

* Dr. Mead relates, that Lady Page was tapped 67 times in five years (oftener than once a month), 240 gallons of fluid having been abstracted. Morand drew off 427 pints in ten months; and Martineau 429 pints within a year, and from the same patient 6631 pints by 80 operations, within five years. He took away 54 quarts at one operation. Portal tapped a lady 28 times; and in a case related by Ford, there were no less than 49 tappings and 2649 pints withdrawn. Dr. Ramsbotham, senior, had a patient, who was either tapped by a surgeon, or performed the operation for herself, in the prominence at the navel, by means of a glover's needle, 129 times in eight years. Whenever she became distressed in breathing, and the navel protruded more than usual, she used to make four or five punctures with the glover's needle, and allow all the fluid that would to ooze away. It was a matter of surprise to all who were present at the examination of her body after death, that she never seriously injured herself; for we found an old umbilical hernia, of very considerable size, bound down to the prominent portion of the umbilicus by strong adhesions. It had apparently escaped being wounded by its position behind the ovarian protrusion, whenever the collection of water was great, although it actually by its size, added not a little to the bulk of the external tumour. "This has taught me" (says Dr. Francis Ramsbotham), "never to plunge a trocar into the swelling at the umbilicus, although the prominence of the tumour there, and the thinness of the structure, might otherwise tempt me to select that spot."

When paracentesis has been determined on, and before its performance, it ought to be ascertained that there is no pregnancy, and that the fluctuation does not arise from a distended bladder. Nor ought we to omit this examination when the tapping is repeated; for the viscera may have altered their position relative to the diseased ovary, rendering necessary a change of place for the introduction of the trocar. It must not be forgotten, that for want of this caution, the abdominal and pelvic organs have been mortally wounded; and no practitioner ought to be ignorant of the fact, that both the pregnant uterus and the distended bladder have been punctured, and with fatal consequences, from having been ignorantly mistaken for a dropsical ovarian cyst. The patient ought also to be informed, that the operation may fail, for although in ascites the whole of the water is generally evacuated, in ovarian encysted dropsy, owing to the extreme viscidity of the fluid, or from its being contained in separate cells, only a small quantity may be abstracted.

We should select the most prominent part of the cyst for puncture, if there be no solid deposit; but we must avoid the navel. A large trocar is better than a small one, as the fluid may not be serous, and the instrument should be cautiously, yet boldly carried through the integuments. I have seen a timid surgeon foiled from not passing the instrument sufficiently deep, forgetting that the abdominal coverings may be very thick, and that the sac itself may be covered with fat or be very dense. The epigastric artery should be avoided; but even where this vessel is not wounded, some of the large blood-vessels ramifying on the surface of the tumour may be opened and an alarming hemorrhage may ensue.

These difficulties evaded, the fluid is to be slowly drawn off, and if there be syncope or an approach to it, the further abstraction may be stopped for a few minutes by plugging the canula with the tip of the finger or a small piece of tow, and by tightening the abdominal bandage previously placed round the belly. The extremity of the canula must not escape from the cyst, as the sac is being emptied; for inflammation might follow the effusion of the fluid into the peritoneal cavity.

Monro, Ledran, and some other authors, mention cases cured by paracentesis; and, to speak with caution, I have known

several where, after one or two tappings, an interval of six or seven years has occurred, without further evacuations being even then required. Such examples may fairly so far be regarded as cures. The evil consequences of paracentesis consist, in the fatal sinking which sometimes, although very rarely, immediately succeeds it; in the rapid refilling, an event hastened, perhaps, by the operation taking off pressure from the secerning capillaries of the interior of the cyst; in the occurrence of inflammation either in the sac itself, or in the peritoneal cavity. To these unfortunate results must be added, the want of success arising from extreme viscidity of the fluid, the existence of numerous and entirely separate cells, and from the complication of scirrhus or even of more malignant growths. The wound of the trocar, in these latter conditions, may, by inducing inflammation, accelerate the patient's dissolution.

After the operation, absolute quiet in the recumbent posture should be insisted on; and it has been recommended in a few days, when excitement is subsiding, to exhibit diuretics and apply blisters to prevent re-accumulation. These means however, have only very partially succeeded.

Injection and Incision.—These are measures less formidable in some respects than extirpation; but their consequences are sufficiently disastrous to prevent their further use. It was supposed, from the success of astringent and irritating injections in hydrocele, that happily a similar good result might ensue from their use in ovarian dropsy. But it was forgotten, that the surface is much larger, that the cyst itself is not only in the neighbourhood of the peritoneum; but that it is covered externally by a reflection of this membrane. Hence the degree of inflammation was so uncontrollable, that this measure may be regarded as entirely abandoned. One case I have appended, where I had an opportunity of watching the practice.

Incision. — In some cases an attempt has been made to procure obliteration of the sac by incisions, setons, and by leaving the canula or sponge tents in the wound. These have now become merely matters of history; for scarcely in our medical societies would more than an expression of sur-

prise be elicited, either if a cure was obtained, or a fatal result evaded, after the employment of such means.*

* Le Dran, has given two examples (2nd vol. of the Memoirs de l'Academie de Chirurgie) of incision. In one, after a free incision into the cyst, the fluid was evacuated, suppuration established and a cure effected, although a fistulous orifice remained. In the second, a canula was introduced after the incision, and here there was febrile excitement, vomiting and delirium. The patient however escaped, and there was no further gathering of fluid, but as in the former instance, there was a fistulous opening for more than two years.

In Laporte's case, to be found in the same volume, the contents of the sac being too solid to pass through the canula, an incision of five inches length was made, the gelatinous contents were evacuated and the wound closed. Vomiting and fever came on and in thirteen days the patient died.

In Osiander's patient, the incision remained fistulous for a year, death eventually ensuing from peritonitis.

Mr. Key, says the "issue (from leaving a piece of bougie in the wound made by the trocar) has not been such as to lead him to expect much from the plan." His were all cases occurring in Guy's Hospital: in one the fluid was serous, in a second mucilaginous, and in the last like coffee-grounds. In all considerable distress was produced, consequent on the inflammation which supervened. In the first the fluid re-collected; but the process established in the sac seemed to retard its formation, for tapping was not required again for six months. The second patient was also tapped again, and died a year after the bougie had been introduced, whether in consequence of the operation is not stated; and the third patient sunk under the influence of an abscess, which formed four days after the operation, and burst externally at the opening made by the trocar.

Denman notices the particulars of a case, where death occurred the sixth day after injecting the cyst. Mr. Ramsden made use of injections in two instances, and both died in consequence; Hamilton says, he once injected an ovarian sac with port wine and water, and the patient died in six weeks of chronic inflammation.

Rigollet of Lyons relates the following example:—The patient was 23 years of age, and the tumour first appeared after labour. The second time it was punctured, a decoction of plantain and red rose leaves, with the addition of a little wine, was injected. While the fluid remained in the cavity, it occasioned acute suffering, and after its evacuation, M. Rigollet kneaded the cyst with his fingers, "in order to determine its inflammation." Intense pain, vomiting, and swelling of the abdomen quickly ensued, and energetic antiphlogistic remedies were required to repress the inflammatory symptoms. In a month the cure was considered complete; but there always remained in the abdomen a small, oblong, indolent tumour, doubtless the original cyst, whose parietes had become adherent together internally, and perhaps also to the peritoneum, on the inner surface of the abdominal muscles.

For these notes of cases, I am indebted to the very able lectures of Dr. Francis Ramsbotham, from whom I take also the following extraordinary history:—

The most remarkable case, perhaps, on record, in which the practice of cutting into the cyst was adopted, is detailed in the thirty-third volume of the Philosophical Transactions, by Dr. Houstoun; it occurred more than a hundred years ago, and proves the extent of injury which the abdominal structures will sometimes bear with

Extirpation.—After the opinions expressed when treating of the prognosis and termination of ovarian dropsy, I shall here content myself with furnishing an account of the different operations which have been performed, appending Dr. Churchill's tabulated record of the cases themselves.

Two modes of operation have been practised for the extirpation of ovarian tumours, one by an incision of small extent through the abdominal parietes, the other by a free and extensive section from the pubis to the epigastrium. In the former or minor operation, the bulk of the disease, where the contents are fluid, must be first reduced by tapping; the sac is then to be drawn out, its peduncle tied, and afterwards divided. The major operation contemplates the extraction of the tumour entire; and it must be evident, that this method will enable the operator to deal with adhesions and peduncles, which would present great difficulties by the lesser incision. Still it is proved, that the proportion of deaths is greater in the larger than in the lesser operation. Out of 60 cases (vide Dr. Churchill's tables), the lesser incision was practised 22 times,

impunity. The patient was 58 years old, and I shall quote to you his own words, because the mode of proceeding I deem to be without parallel. I certainly trust it will remain without imitation.

"The operation of puncturing the abdomen being proposed, the woman consented. Accordingly, with an imposthume lancet I laid open about an inch; but finding nothing issue, I enlarged it to two inches, and even then nothing came forth but a little thin yellowish serum; so I ventured to lay open about two inches more. I was not a little startled, after so large an aperture, to find only a glutinous substance bung up this orifice. The difficulty was, however, to remove it. I tried my probe, and endeavoured with my fingers, but all was in vain; it was so slippery that it eluded every touch, and the strongest hold I could take.

"I wanted in this place almost every thing necessary, but bethought me of a very odd instrument, yet as good as the best in its consequence, because it answered the end proposed. I took a strong fir splinter, such as the poor in that country use to burn instead of candles. I wrapped about the end of this splinter some loose lint, and thrust it into the wound; and by turning and winding it I drew out about two yards in length of a substance thicker than jelly, or rather like glue fresh made, and hung out to dry; its breadth was above ten inches. This was followed by nine full quarts of such matter as is met with in steatomatous and atheromatous tumours, with several hydatids of various sizes, containing a yellowish serum, the least of them larger than an orange, with several large pieces of membranes, which seemed to be parts of the distended ovary. I then squeezed out all I could, and stitched up the wound in three places."

The patient recovered, and lived fourteen years afterwards without any return of the disease,—a fortunate termination to a very rough practice.

and 16 patients recovered; while out of 37 cases, where the larger operation was resorted to, only 22 patients recovered. Whether such results will be obtained in future, it is impossible to determine; but I cannot see the necessity for always resorting to the large incision. In many of the cases where the long section was practised, there were no adhesions. In such, the sac might have been drawn out after tapping, a double ligature applied, and the uterine portion being left in the abdomen, the wound might at once have been closed. If, from the presence of solid matter, or the existence of many cysts, a small quantity only of fluid could be withdrawn, the incision might be enlarged, and the operation proceeded with as in the larger section. Mr. Walne's reasons for preferring the long section are these: "that it does not appear that a less extent of wound diminishes the danger of the operation in any material degree, if at all; and that the complications which occasionally present without being foreseen, and which, indeed, do not admit of being foreseen in every instance, can be better appreciated, and more suitably dealt with by the surgeon, through a free opening than through a small one. For example, the effusion of blood or the escape of fluid from the cyst into the peritoneum, either of which is a most dangerous complication of the difficulties inseparable from any method of operating, can with no certainty be avoided in the minor, but may assuredly be remedied if they should occur in the major operation. Adhesions, too, can be divided, the parts can be cleansed, and arteries tied with facility, if necessary, and the operator's mind freed from doubt as to the state of the internal parts, before he carefully closes the wound. These are circumstances which the experienced operator can appreciate, and if he should not be blinded by an undue apprehension of peritoneal inflammation, he will be sure to estimate highly such palpable advantages."*

I am indebted to Mr. Jeafferson for a description of his method of operating; and the following account is extracted from the Trans. of the Prov. Med. and Surg. Assoc. vol. V, p. 240:—

* I acknowledge most willingly the talent and extreme care displayed by Mr. Walne in his operations, and especially in the after treatment of his cases; but I cannot, without considerable limitation, concur in the reasons for his preference of the larger over the smaller and safer section.

"Mr. J. had attended Mrs. B—— in her labour in Nov. 1833, and then discovered a tumour in the pelvis, which he succeeded in pushing above the brim of the pelvis, so as not to impede delivery. She was delivered of another child on the 4th of March, 1836, without any difficulty, but after this the abdominal tumour increased so rapidly, that extirpation was determined on.

"Accordingly, on the 8th, in the presence of my friend Mr. King, I made an incision of between 10 and 12 lines in the course of the linea alba, midway between the navel and the pubes, and having thus carefully exposed the sac, I evacuated by the trocar about twelve pints of clear serum. During the flow of the serum, a portion of the sac was secured in the grip of a forceps, to prevent its receding; and I afterwards gradually extracted the sac entire from the cavity of the abdomen, together with another sac containing two ounces of fluid, and indeed the entire ovary, having only to cut through a slight reflection of the peritoneum, and the ovarian ligament, which, with the exception of a small portion of the fimbriated extremity of the fallopian tube, are the only natural attachments of the ovary to the uterus. But as this part was the medium of vascular supply to the sac, and the vessels on the surface of the sac were unusually large, we thought it right to include it in a ligature previous to returning it into the cavity of the abdomen: the ends of the ligature were cut off close to the knot. A very small portion of omentum protruded with the sac, but was very easily returned; the external wound was closed with two sutures, adhesive plaster, and a compress of lint; and by Mr. King's advice I gave immediately a pill containing two grains of powdered opium, and a draught with a drachm of tincture of foxglove, keeping a napkin wrung out of the coldest spring water constantly applied over the whole abdomen. In the night I gave doses of calomel and extract of henbane, and followed this by giving, every four hours, a solution of sulphate of magnesia in saline mixture."

Two days after the operation, the patient was attacked by vomiting, sinking, and pain in the thigh, but under Mr. Jeafferson's judicious treatment, she soon rallied.

"The sutures were removed 48 hours after the operation, when the wound was healed, except where the sutures had produced

slight ulceration; the plaster and compress were re-applied, and saline mixture with one drop of hydrocyanic acid was given every four hours." The woman, after this, did well, and has resumed her usual occupations. "There was not, at any period, the slightest interruption to the secretion of milk, and only a little shooting pain occasionally where the ligature was applied.

"Mr. King, of Saxmundham, has repeated this operation on a lady, when the ovarian sac was much more distended, and having evacuated 27½ pints of fluid, he extracted it entire, together with a tubercular tumour the size of a turkey's egg. This lady has recovered without an unpleasant symptom."

No doubt less hazard of peritoneal inflammation must attend such an operation, than where the abdominal cavity is laid open from the pubis to the ensiform cartilage; and it will probably be also conceded, as already observed, that in many instances, by a *moderate extension of this incision*, adhesions and pedunccles capable of *safe* division may be brought sufficiently within the scope of the knife and ligature. If the operation continues to be practised, these points will be fully elucidated, and the relative merits of the two kinds of extirpation will be fairly adjusted. Mr. Walne's account of his operation is given below.*

* Mrs. F——, of —— Street, Marylebone, æt. 58, applied to me some time in the month of July with great abdominal enlargement, equalling indeed that of pregnancy at the full period. The catemenia had ceased four years. She used to be subject to floodings. Had given birth to five living children, and miscarried several times. A rounded prominence of the abdomen, of a circumscribed character, with fluctuation, and moveable as a whole, was found on examination; whilst the health was good, and there was no sign of general dropsy present. She had observed her gradual increase of size for more than two years, and as she could not account for it, had lately felt uneasy on the subject, though it caused her no pain, and was, indeed, only an encumbrance, and made her unpleasantly remarkable. From scrob. cordis to pubes was 17½ inches; her circumference was 37½ inches. I pronounced her case, on investigation, one of ovarian disease, and after a few interviews, referred her for confirmation of my opinion to Dr. Blundell. Having obtained this, I began to hint at the means of cure, and having gradually gained her confidence more and more, and as gradually intimated my purpose; not concealing from her or her family the risk attending the measure; after the cause of postponement above alluded to had been removed, fixed the day of operation, with her ready and full concurrence, and enlisted my friendly co-adjutors for the occasion. A few hours before the time appointed, I went over the steps of the operation with a part of these friends; to one of whom was assigned the charge of the tumour, exclusive of all other engagements; to another, that of covering the exposed interior parts by the divided skin, the moment opportunity should offer.

CASES OF OVARIAN DISEASES.

REPORTED BY MR. EDRN, CLINICAL CLERK.*

Case 94.

Elizabeth J——, Mary's Ward, No. 20: admitted Nov. 1831, under the care of Dr. Ashwell; aged 35; unmarried; subject to irregular catamenia for three years, recurring every fortnight, lasting a week, and accompanied by clots; ill 16 months.

On admission—ovarian dropsy; great pain in left iliac region at commencement; tumour extends from pubis to ensiform cartilage, and

The temperature of the room was to be raised rather above 70° Fah.; and means were adopted to secure it from change in this respect as much as possible. A mild dose of aperient medicine, given over night, not having acted, an enema, administered half an hour before the time named, gave the required relief.

Dr. Blundell, Mr. Vincent, Mr. L. Beale, Mr. Law, and Dr. Freund, of Vienna, were punctual, and between 3 and 4 o'clock, P.M., the patient was placed upon a couch, with her feet upon the ground at its end, and her back supported by pillows. Some little preliminary examination having been made, and myself and more fixed assistants having taken our posts, myself seated on her right, for the satisfaction of all parties I commenced with an exploratory incision of the integuments and tendinous expansion, and then of the peritoneum, to the extent of an inch and a half. A finger was passed on each side into the peritoneal cavity, and the fluctuating cyst distinguished quite clearly. No fluid escaped. I now proceeded with the scalpel to enlarge the incision from above downwards, including that already made, to the length of thirteen inches, or a little more, first in the integuments, avoiding the umbilicus, and afterwards in the peritoneum, from the small opening, with a probe-pointed bistoury, guided by two fingers of my left hand, upwards and then downwards to the same extent, being from about three inches below the scrobiculus cordis to within one and a half of the pubes. This accomplished, the wound began to expand on each side, and the tumour to advance gently, but more briskly when its greatest bulge had passed through the wound; demonstrating the propriety of some one being appointed for its management, and giving the most satisfactory evidence of its being mainly free from unnatural attachment. It had not been ascertained with certainty which ovary was affected, but the right was suspected to be the one, and so it proved. I now passed two fingers behind the broad ligament, and Mr. Law sustained the tumour, which might otherwise have fallen forwards. With a needle, having its eye near the point, and fixed in a handle, guided by the two fingers, I passed a double ligature behind the pedicle, and thrusting the needle through the middle of that part, brought its point forward. The ligature was divided, and disentangled from the needle, which was then withdrawn. The tails of the ligature being ad-

* These cases are reported in this condensed form, that a comparison of similar symptoms and points may be easily made, and if I am censured for publishing so many, my excuse must be, that in this succinct form they occupy but little space and will assist in the construction of accurate statistical tables; showing the results of ovarian dropsies treated without operation.

into both iliac fossæ; fluctuation distinct; os, cervix, and body of uterus, healthy.

Treatment.—Nov. 2nd; Julep. Pot. Nitrat. Ol. Ric. ℥ss. p. r. n.—*Dec. 18th;* Elaterii Ext. gr. ss. t. d. sing. dos. mist.

Progress.—Nov. 8th; abdomen fuller; parietes not thin enough to tap.—*29th*; Paracentesis; ten quarts of dark green slimy coagulable

justed for tying the two halves of the pedicle separately, I now tied one of them, but in doing so the silk broke. The remaining one was used for introducing a second double ligature with which the former had to be replaced. After tying the pedicle, I divided it between the tumour and the part tied, and, having done so, had the satisfaction to see the huge mass of more than 16 lbs. weight lifted from its place, and carried away by Mr. Law, no adhesions whatever interfering. I now examined the cut end of the pedicle, and tied a considerable artery. At this period the patient became very sick, and made repeated efforts to vomit, but nothing was brought up. Dr. Freund had been in charge of the divided integuments, and closed them over the abdominal viscera, securing the intestines from exposure to air as much as possible. Whilst the retching efforts continued I aided him in this work, and my other friends were taking every care of the patient in other respects. When these had ceased I again looked for bleeding vessels; but as there was a general oozing, rather than any other form of bleeding, it was agreed to tie the pedicle in its entire circumference, some notion prevailing that the needle might have severed a vessel at a distance from the cut surface. I accordingly did this with double stay silk. Bleeding ceased, the wound was cleansed, the other ovary examined by Dr. Blundell, and nothing remained to be done but to close and stitch the wound. About a dozen of interrupted sutures through the integuments, which had been marked before the operation for our guidance at this moment, served to bring the parts together. Long pads of lint were laid down each side of the abdomen a little away from the wound, and strips of a mild adhesive plaister carried over them from one side of the body to the other. A broad bandage, entire at the middle, but slit up into eight roller-heads, and previously laid ready beneath her back, was made comfortably tight, and the ends, after once encircling her, tied on alternate sides of the patient's abdomen. This seemed to give her a satisfactory feeling of security, and drew from her a remark of approval.

At the conclusion of the operation, her pulse was 76, counted by Dr. Blundell: it had been exactly that number when reckoned by myself the evening before: she was, however, pale and cold, and when laid in bed requested to have something given to quiet her nerves: a bottle of hot water was put to her feet, she was well covered up, and an anodyne administered, with directions to repeat it in an hour: it was composed of ♏ gr. Morph. Acetat. and ℥iss. Mist. Camph.; and was so repeated. At 5 o'clock, her pulse was 82. When I visited her at 8, it was 96. She had become warm after the anodyne, and having slept two hours, was now perspiring freely. From this time she was neither cold nor had chilly sensation: on waking from her sound sleep, she was at first a little confused, but this soon ceased, and she was generally quite clear and calm in mind. When the pedicle was tied the first time, she had complained of some pain in the loins, and still more at the second tying of that part; a general smarting of the wound was also, of course, felt. These continued between two and three hours, but had now subsided almost entirely. A sensation of throbbing succeeded, which also ceased in the course of the night. At 12 o'clock, I paid her my final visit, and drew off five ounces of urine. She had

fluid.—*Dec. 6th*; left her bed, and doing well.—*13th*; bandage applied.—*18th*; confined bowels.

Presented. Cyst slowly filling; to go into the country.

Dr. Ashwell saw the patient again about eighteen months afterwards; and the cyst, although tolerably full, was stationary, and had been so many months.

slept three hours since 8 o'clock: pulse 94 before, 89 after the use of the catheter. No unfavourable symptoms.

Nov. *7th*.—I visited her at 9 A.M., 4, and 11 P.M., and each time used the catheter, withdrawing in all 14½ ounces of urine. The pulse at each visit respectively 90, 96, 86 when asleep, 90 after awaking. Having passed a comfortable night, at least sleeping great part of the time, she also slept a good deal in the day; was free from pain, had no abdominal tenderness, except in the line of the wound, and no distension, flatulency, or sickness; she perspired freely and was comfortably warm. Had taken nothing but toast-water, and as too little of this even had been given in the great caution used to avoid distension from any cause, was rather thirsty in the afternoon, but when more was allowed complained towards night that it did not quite suit her stomach. Mint-tea was then proposed, but not taken. A spoonful or two of panada in the evening was the only thing taken besides, until at night her anodyne of ¼ gr. Acetate of Morphine and ʒiss. Mist. Camph., was repeated, which relieved the slight uneasiness of the stomach. The total abstinence observed throughout the day was in accordance with her own feeling as well as my wish, as "she often ate nothing for two days or more when her stomach was out of sorts."

8th.—The second night was not equally good; indeed, she had been somewhat hot and restless, but still perspiring. The thirst continued, and sickness had twice or thrice occurred in the night. Small quantites of soda-water, not in its full activity, were now allowed, and she took a bottle and a half in the course of the day. I visited her four times, and the pulse was noted at each of the visits twice, the catheter, except at mid-day, being used between making the first and second note.

	9 A.M.	2 P.M.	9 P.M.	12½ P.M.
1st trial	91	92	96	84
2nd do.	88	91	92	84

ʒiv of urine withdrawn in the morning. I was induced by this circumstance to omit the use of the catheter at 2 o'clock. In the evening I received two messages, and at 9 o'clock found her very uneasy, with a strong desire to pass urine and stool, but afraid to make any effort. The catheter and an enema of warm water afforded great relief. Flatus passed from the bowels, and ʒvi of urine were withdrawn. Vomiting and occasional eructation of wind had occurred. She had changed her posture in bed several times, and was not easily restrained from making imprudent sudden movements in her state of uneasiness. During my 9 o'clock visit this was very much the case, and after one of her movements of this kind, she became alarmed by feeling something hot on the skin of the abdomen. On examination I found serum trickling down the skin from the wound. I afterwards suspected that the ligatures which had been left out about two inches from the pubic end of the wound must have been pulled a little way within it at this juncture, as the ends were not visible when I made my first dressing. Being very much relieved by what had been done for her, and the anodyne having been repeated, at half after 12 o'clock I found that three hours of comfortable sleep, and a subsidence of the pulse, had been the

Case 95.

Mary K——, Mary's Ward, No. 12; admitted *Aug. 30th*, 1832; re-admitted *Mar. 7th*, 1834; aged 25; married; emaciated, of dark complexion; miscarried six years ago; ill 18 months; was first attacked

happy consequences of the measures. Her mind was clear, and her skin moist all day, but after the anodyne warm and perspiring freely, the tongue moist; but vomiting always disguises the state of the tongue in that respect, so as to render it almost useless as a criterion of the patient's condition.

9th.—Hours of visiting and state of pulse.

	10 A.M.	4 P.M.	11 P.M.
1st trial	100	100	
2nd do.	97	97	92

She slept two-thirds of the night, and passed, unaided, ʒix of urine before my first visit, and ʒvss. after it. Felt a wish for food, and took panada. The sickness had ceased. She slept in the day, and again took a little simple food at night. It was panada, or something sopped, as biscuit, I believe. Complained of slight pain at the pit of the stomach. The enema and the anodyne were repeated. Her tongue was moist and cleaner, and the skin perspiring.

10th.—Had two motions from the enema last night, and passed ʒix of urine at twice. Had been somewhat restless and moving; was thirsty, and had occasional sickness. Took a cup of tea and a little biscuit for breakfast. Skin moist; tongue moist and brown; some griping pain; passed ʒxii more urine in the course of the day. The temperature of the room, which had been preserved almost uniformly at 70°, or a trifle above that degree, and only once before lowered to 67° for a few hours was now reduced to 66°. All this day the pulse ranged from 80 to 82, a fall attributable to the free relief of the bowels the previous night, yet some uneasiness of a griping kind was now and then felt. Enema repeated; anodyne conditionally ordered, but not taken.

11th.—She had not had so good a night; vomiting had twice occurred, with strong retching, and she had brought up a good deal of bile: there was constant nausea, and occasional eructation; ʒvj of urine; no motion; occasional griping; pulse 80. I dressed the wound, removing all the stitches below the umbilicus, but leaving those above that part. I directed that some beef-tea should be given with salt in it.

At mid-day the symptoms were not amended. Pulse 83; tongue dark-brown, and much coated; her manner drowsy, and her mind at times confused; constant nausea, occasional vomiting, and frequent hiccup, with pain at the navel. These symptoms made me anxious for her safety. They were those of intestinal distress, and reminded me of such as occur in strangulated hernia, and at the ushering in of intestinal fever of a bad form. I speculated on the circumstance of the disappearance of the ligatures, and how they might contribute to the production of the symptoms. I deemed it useless to search for them, as their attachment to the pedicle would render their removal, if found, impracticable; and after conferring with my friends Dr. Blundell and Mr. Vincent, determined to make no attempt of that kind, but give the anodyne, then an enema in two hours, and repeat the anodyne if necessary. All this was done. The first anodyne relieved the sickness, procured her some better sleep, and revived her very much. The enema produced a discharge of flatus and

with pain in right ovary; since which, a gradual and universal enlargement.

At present, distinct fluctuation; cyst very thick at right inferior part; menses regular.

some little feculent matter. She had a tranquil night after the second anodyne, and on the morning of 12*th* felt better; having passed ℥xi of urine in the night, and having been scarcely at all sick. Pulse 79, soft and full; skin warm, and freely perspiring; occasional hiccough, which still causes pain at the navel. Wished for tea and toast, and took some beef-tea with toast in it.

Throughout the day she continued to improve. She passed ℥ix more urine. At night the enema, and then the anodyne, were repeated: the former produced a motion, which, in part, consisted of a large hard lump of fæces; her night was good, and on the

13*th*—She had neither pain nor sickness. ℥xvj of urine passed in as many hours; her tongue was moist, and rapidly cleaning, yet the singultus occasionally returned: this, she said, she was very apt to experience when well, and was partially relieved by sipping water. I dressed the wound, removing the remaining stitches: adhesive matter was covering those parts of it which were not closed, and which, at three points together, amounted to less than three inches. She was cheerful and comfortable at noon, when the wound was dressed, but within a very little time had again some nausea and other symptoms resembling those of incarcerated hernia. She thought the dressings too tight, and, on raising one end of the strips of plaister, it was found that one of them in particular had been so; it lay over a part of the wound not yet quite closed, where intestine, slightly protected by adhesive matter, was liable to pressure. On my removing this piece of plaister she felt sickish and faint, but immediately after much relieved: it had evidently contributed to the renewal of unpleasant symptoms; and the circumstance is, I think, one of great practical interest, for it confirms the observation which the whole circumstances of the case, after the completion of the operation, are calculated to draw forth, viz., that it is not so much peritoneal inflammation as suffering in the viscera of the abdomen, more particularly the intestines, which is to be apprehended as a consequence of free incision for the removal of dieased ovarium.

Having obtained great relief from the loosening and more lightly adjusting the dressings of the wound, one other cause of uneasiness and anxiety remained. Several hours had elapsed without her having passed her urine, and she felt doubtful of her power to do so: the catheter was accordingly used for the last time. The enema and the anodyne were also repeated.

14*th*.—She had slept well, and at 5 in the morning voided her urine naturally. No sickness had occurred; her tongue was clean and moist; pulse 78 and soft; passed ℥ix of urine in the day, and, except a slight degree of light-headed feeling, and a rather violent fit of hiccough in the evening, was comfortable throughout this day, and had taken beef-tea, arrow-root, &c., more freely.

℞ Fel. Bov. gr. x. h. s. s.

15*th*.—Passed a tranquil night without the anodyne, and feels quite well; singultus less troublesome; wished for leave to sit up, but felt weak and languid. Ordered a little port wine.

16*th*.—Better in all respects; relished some chicken.

Treatment.—Sept. 10*th*; Paracentesis. — 20*th*, ditto. Purgatives, diuretics, occasional opiates, and iodine.—*March* 7, 1834; again tapped.

Progress.—15 pints of fluid evacuated.—*Sept.* 25*th*; again filling.—

From this time she continued to improve daily. On the 20*th*, she said she felt as if she could stand and walk, but still had some uncomfortable feeling, and slight difficulty in passing her urine. The hiccough did not entirely cease till about this time, though it was slight. On 23*rd*, she sat up several hours; afterwards, when in bed, her pulse was 75. On the 25*th* the ligatures appeared at the pubic end of the wound, and on the 27*th* I removed that which had secured the artery of the pedicle. On the 29*th* she felt quite well; the wound was healed, except a seton-like opening at the lower end of it, where the ligatures were lying, and one point by the umbilicus of redundant granulation of the size of half a pea. It was found requisite to give her a mild rhubarb draught occasionally, or sometimes a little magnesia, as the bowels did not act with quite their accustomed freedom; but in all other respects she was now well, and fast regaining her strength.

I have not interrupted my narrative of the practical details of the case by any description of the diseased part removed by the operation; and the difficulty I might have had in conveying to my readers a correct idea of its character is fortunately rendered trifling by the spirited wood engraving executed by Mr. Lee, from his own accurate sketch, which he made before any material change in in its appearance had occurred.

The greater portion of the mass was fluid, contained in one or more cysts. A substance of about the size of two fists, having at some points a scirrhous hardness and abruptness of form, occupied that part of the tumour where the remains of the fallopian tube, meandering towards its fimbriated extremity, sufficiently declared it to be the ovarium of the right side, much enlarged and changed in structure. The fluid is of the ordinary character of ovarian dropsical fluid, and the solid portion is probably of a scirrhous character; but, as I have thought that the disease as nearly in its actual form and size at the period of its removal, as it could be preserved, is more valuable for the surgical illustration of the subject than when cut into slices for pathological ends, as has been done by hundreds such, to which no other history than that of their fatal influence on the frame that bore them attaches, I have not yet pursued the ordinary course of destructive investigation with this one; convinced that in its present state it suggests useful reflections to those practitioners within its reach, whom apathy or prejudice may not prevent from thinking on the important question of the curability of certain diseases of the human frame by operation; since their cure by other means is, by general admission, deemed hopeless.

But let me not be misunderstood. Let me not be supposed for a moment to recommend this operation as one to be undertaken in any but well-selected cases to which it is adapted; still less let me be supposed to advise that any surgeon should engage in its performance who has not, by habits of operating—yet more by long habits of careful observation and treatment of disease generally—and by very considerate and studious examination of the nature and connexions of this particular disease, and the tendencies of the viscera, which may be involved in mischief by an ill-judged operation, or ill-conducted after-treatment—qualified himself to cope with difficulties, from which it is unreasonable to expect an exemption.

20*th*, 9 pints of fluid withdrawn, not coagulable by heat.—*Oct.* 30*th*, going on well; cyst refilling slowly; urine abundant; great constipa-

The following three tables will exhibit a coup d'œil of the results of almost all the cases on record. It has been constructed with great care and labour by the able and indefatigable author.

TABLE I.—*Cases of Extirpation of the Ovary.*

No. and Date.	Operator.	Age.	Incision.	Result.	Character of Disease.	Adhesions.
1	L'Aumonier.	..	4 inches.	Recovered.	Abscess of ovary.	
2—1809	Dr. M'Dowel.	..	9 do.	do.	Gelatinous matter	
3—1816	do.	..	Long.	do.	Scirrhous ovary.	
4	do.	..	.. .. ..	do.		
5	do.	..	.. .. ..	do.		
6	do.	..	.. .. ..	Died.		
7—1821	Dr. N. Smith.	33	3 inches.	Recovered.	Cyst, fluid.	Adhesions.
8—1825	Mr. Lizars.	36	Long.	do.		
9—1825	do.	35	do.	Died.	.. ..	Adherent.
10	Dr. A. G. Smith.	30	do.	Recovered.	Cyst, fluid.	
11	Dr. Quittenbaum	..	About 4 in.	do.		
12—1829	Mr. D. Rogers.	..	About 3 in.	do.	Solid and fluid.	Adhesions.
13	Dr. Granville.	..	.. .. ..	Died.		
14	Dr. Chrysmer.	47	Long.	do.	Cart. and lardaceous matter.	Adherent.
15	do.	38	do.	Recovered	Honey-like and green sanies.	do.
16	do.	..	do.	Died.		
17	Dr. Ritter.	31	do.	Recovered.	Cyst, fluid.	
18—1836	Mr. King.	57	Short.	do.	do.	
19—1833	Mr. Jeafferson.	..	do.	do.	do.	
20	Mr. Dolhoff.	23	Long.	Died.	Cyst and fluid.	Adhesions.
21—1836	Mr. West.	..	Short.	Recovered	do.	
22	do.	..	do.	do.	do.	
23	do.	24	do.	Died.	do	
24	do.	..	do.	Not cured.	do.	
25	Mr. Hargraves.	40	do.	do.	Multiloc. cysts.	Adhesions.
26	Dr. Clay.	46	27 inches.	Recovered.	Cyst, sol & fluid.	do.
27	.. ..	67	14 do.	do.	do.	Ext. adh.
28	.. ..	39	28 do.	do.	do.	do.
29	.. ..	40	14 do.	Died.	do.	do.
30	.. ..	22	14 do.	Recovered.	do.	Adhesions.
31	.. ..	40	14 do.	Died.	do.	None.
32	.. ..	43	14 do.	Recovered.	do.	Ext. adh.
33	.. ..	59	16 do.	Died.	do.	do.
34	.. ..	46	16 do.	Recovered.	do.	do.
35—1840	Mr. B. Phillips.	..	2 inches.	Died.		
36—1841	Dr. Stilling.	..	6 do.	do.		
37—1842	Mr. Walne.	58	Long.	Recovered.	do.	None.
38—1843	do.	57	do.	do.	do.	do.
39	do.	21	do.	Died.		
40—1843	do.	20	do.	Recovered.	do.	do.
41—1843	Mr. Morris.	..	do.	do.		
42—1843	Mr. Southam.	..	do.	do.	Cystic sarcoma.	do.
43—1843	Dr. F. Bird.	..	3 or 4 in.	do.	Cyst and fluid.	do.
44—1844	do.	..	do.	do.	Cysts and solid matter.	do.
45	Mr. Atlee.	..	3 inches.	do.	.. ..	Adhesions.
46	Mr. Lane	..	Long.	do.	Cysts, fluid.	None.
47	Mr. Key.	19	do.	Died.	do.	do.
48	Mr. Greenhow.	29	do.	do.	.. ..	do.
49	Mr. B. Cooper.	32	do.	do.		
50	Mr. Trustram.	18	Short.	Recovered.	Cysts, fluid.	do.

tion throughout. — *Dec. 6th,* catemenia appeared after 14 weeks' cessation.—*March 7th,* 1834; 9 pints of fluid withdrawn from one cyst only.

Presented *Dec.* 1832; again presented, *March* 1834.

In April 1836, Dr. Ashwell saw this woman, and found the cyst only partially full, not requiring paracentesis.

TABLE II.—*Cases of Ovarian Disease in which the Operation could not be completed.*

Date.	Operator.	Cause of Failure.	Result.	Incision.
51	Dr. M'Dowal.	Adhesions to bladder and uterus.	Recovered.	Long.
52	Mr. Lizars.	Solid and very vascular tumour.	do.	do.
53—1826	Dr. Granville.	Firm adhesions.	do.	6 inches.
54	Dr. Dieffenbach.	Vascularity.	do.	Long.
55—1826	Dr. Martini.	Solid and fixed tumour.	Died.	do.
56	Anonymous.	Fixed tumour.	do.	
57	M. Dolhoff.	do.	do.	About 6 in.
58	Dr. Clay.	Exten. adhesions.	do.	Long.
59	Mr. Walne.	do.	Recovered.	5 inches.
60	Mr. Morgan.	do.	Died.	Long.

TABLE III.—*Cases in which the Operation failed from an Error in Diagnosis.*

Date.	Operator.	Result.	Disease.
61—1823	Mr. Lizars.	Recovered.	No tumour found.
62—1834	Mr. King.	do.	do.
63	M. Dolhoff.	do	do.
64	Dr. Clay.	Died.	Uterine tumour.
65	do.	Recovered.	Hydatid.
66	do.	Died.	Pelvic tumour.
67	do.	do.	Uterine tumour.
68	Mr. Heath.	do.	do.

Thus, the entire number amounts to 68, of which 41 recovered and 25 died—or about 1 in $2\frac{1}{2}$. Of the 49 cases in which the ovary was extirpated—16 died, or 1 in 3. Of the 9 cases in which the operation could not be completed, 4 died—or 1 in $2\frac{1}{4}$; and of the 8 cases where the operation was unnecessary, 4 died—or 1 in 2.

Age does not appear to have had much influence, beneficial or otherwise, and the same may be said of marriage. Adhesions render the result of the operation much more dangerous than freedom from the same, and yet not so much so as one would, *à priori,* expect. Where other organic diseases co-existed with ovarian, the termination was almost always fatal. It is strange that the operation should have been ever performed, where no tumour has existed; yet the mistake has been made by eminent surgeons, and without any negligence on their parts.

Case 96.

Jane B——, Mary's Ward, No. 19; admitted *Sept. 28th*, 1832; aged 67; married; no children; very thin; swelling in both iliac regions for four years. One year and a half ago, remained in this ward 12 weeks; and after a long use of the iodine, she diminished nearly to her natural size, from having the appearance of being in the last month of pregnancy. Has since attended as out-patient.

On admission—abdomen painful, and greatly distended with very firm, fluctuating ovarian cysts; abundant urine. For two years after the solid enlargement of the ovary commenced, there was no dropsical effusion; the fluctuation has only been evident during the last 24 months.

Treatment.—Julep. Iodinii c̄ Tinct. ejusdem, et Pot. Hydriod. Casc. c̄ Sod.

Progress.—Urine abundant throughout; the abdomen much diminished in size; giddiness in the head, &c., from iodine.

Dr. Montgomery mentions a case, where he felt a distinct tumour in a female's abdomen, which suddenly vanished in the very act of examination! The abdominal muscles, in fact, often act in such a way as to imitate organic enlargements of the liver, spleen, ovaries, &c., and thus deceive even the most careful practitioners. After many judicious remarks, cautions, and comparisons, our author comes to the following conclusions:—

"Even after the details I have given, it is very difficult to come to a definite and perfectly satisfactory conclusion, because —1, we have not sufficiently accurate data to estimate the progress of the disease unaided by surgery. 2. The cases in which ovariotomy has been performed are of such a mixed character, that it is impossible to select with fairness those cases in which the operation was demanded for the relief of urgent suffering, and suitable to the nature of the disease, without the appearance of partiality. And 3, from the obscurity of the diagnosis, it is too much, perhaps, to expect that our practice in future will be free from those drawbacks on the operation.

"But bearing in mind these difficulties, and making allowance for those drawbacks, I think we may conclude that there are cases in which the operation would be justifiable; and on these grounds,—we find the general opinion is against the curability of the disease by medical means;—that after a time the patient will die from local disease or accident, or constitutional disturbance, and that meantime she suffers more or less inconvenience;—that tapping in almost all cases affords but temporary relief;—and that, as far as the limited statistics we have adduced are admissable as evidence, it is attended with great danger: i. e., 1 in 5 died of the first operation, and of twenty patients, fourteen (more than two-thirds) died within nine months of the first tapping; whilst of the entire number of those who underwent the operation of ovariotomy, about one-half have absolutely recovered so far."

The foregoing paper is very creditable to the industry, the talents, and the judgment of its author.

Since this period, the iodine has been more or less constantly administered; and the fluid in the cysts has been restrained from any great accumulation. The solid growth on the right side of the lower part of the abdomen is stationary, although still of great size.

Case 97.

Caroline D——, Mary's Ward, No. 18; admitted *Sept. 6th*, 1834, under the care of Dr. Ashwell; aged 27; fair; always healthy; married 10 years; 3 natural labours; regular but difficult menstruation; leucorrhœa; hæmoptysis, from straining 4 years ago, followed by swelling in right iliac region 12 months after last labour; swelling rapidly increased for 8 months; then remained stationary till present time; ill 4 years.

On admission—abdomen considerably distended; fluctuation distinct: pain in loins, hips, and left side, on deep inspiration; scanty urine; costive bowels. 10*th*, abdomen painful; now menstruating.

Treatment.—M.M. c̄ M,S.—25*th*, paracentesis.—26*th*, Tinct. Opii m. xxv.—28*th*, Cal. c̄ Opio et Liq. Opii sed.

Progress.—*Sept.* 17*th*, distended to the utmost.—25*th*, only a few ounces of fluid withdrawn, from the compound nature of cysts. *Vespere*, an immense quantity of fluid escaped from the wound.—26*th*, better; abdomen distended with air.—28*th*, sudden rigors; tightness at scrob. cord.; vomiting of glairy fluid; burning sensation at umbilicus; collapse; cold surface; blue extremities; cold sweats: little diarrhœa; but much abdominal tenderness.—9 P.M., trocar wound gaping and inflamed; pulse like a thread; sinking.

Sept. 29*th*.—Death. No examination could be obtained.

Case 98.

Mary M——, Mary's Ward, No. 12; admitted *Feb.* 28*th*, 1835, under the care of Dr. Ashwell; aged 57; widow; one child 3 years since; catamenia ceased 10 years ago; sallow; dark hair and eyes; had good health till within the last year; occasional leucorrhœa; severe pain in loins and flooding 6 months since (as much as a quart), which recurred every 3 or 4 weeks; constant draining in the intervals; ill 6 months.

On admission—a large tumour in the left side of the abdomen extending as high as the ribs; it seems to be divided; the lower part being very hard, and smaller than the upper, which is more extensive, and

very moveable; flooding; difficult micturition; costive bowels; os and cervix uteri healthy.

Treatment.—Stimulants, opiates, purgatives, enemata: Croton Oil. Infus. Secal. C. o. i. Zinc. Sulph. et Alum. āā ʒi pro injec.

Progress.—Remarkable for the following circumstances:—flooding; leucorrhœa; tumour pressing on the rectum; occasional scybalous discharges, at which time the vomiting was alleviated; incontinence of urine; great pain in the growth; vomiting of apparently fæcal matter. There can be little doubt that this was one of those malignant growths of the ovary so well described by Dr. Seymour. The fluctuation was not sufficiently distinct and extensive to allow of the opinion that it was produced by regular dropsical effusion into a scirrhous and indolent ovary. The rapidity of the progress, and the extreme suffering, confirm its malignancy.

No examination could be obtained.

Case 99.

Mary S——, Mary's Ward, No. 15; admitted *March* 21*st*, 1835, under the care of Dr. Ashwell; aged 26; married 6 years; 2 children, last, 4 years ago; menstruated at 13; catamenia irregular, scanty, and painful; ceased since last child; good general health; occasional leucorrhœa; tumour probably commenced at right side, 3 years since; continued gradually to increase for 6 months, when it rapidly became large; ill 3 years.

On admission—the whole abdomen tense; umbilicus prominent; fluctuation evident; bowels open; tumour tender; and at the lower part the fluctuation obscure and indistinct.

Treatment.—*March* 24*th*, Vin. Colch. Tinct. Hyosc. Mist. Camph. h. o. o. Leeches occasionally.—*May* 9*th*, Pil. Hydr. Ext. Aloës. Ext. Hyosc.

Progress.—Bowels irregular; much the same till *May* 2*nd*, when she left the hospital. Re-admitted *May* 25*th*, tumour very painful; rigors; burning heat in right side; vomiting of green fluid. Again left the hospital, *June* 17*th*. Re-admitted *July* 8*th*, larger; suffers from extreme tension; more fluid in abdomen.—13*th*, 3 pints of a glutinous tenacious fluid withdrawn.—16*th*. hot skin; thirst; anxious countenance; quick pulse; died in night.

Inspection.—Abdomen only examined; tumour filled three-fourths of the cavity inferiorly, everywhere adherent to the parietes, and difficultly extracted. Peritoneum, with stomach, liver, spleen, &c., presented

some traces of old inflammation, with abundant products of recent peritonitis. 3 or 4 pints of the mucus of the sac found in the serous cavity, mixed with puriform and partially fibrinous matter: some surfaces glued together by a plastic effusion; several parts much injected. Upper and larger half of the tumour formed by one immense cyst, with a dense, well-organized paries, one-fourth of an inch in thickness, tensely filled with a uniform, thick, turbid mucus; inferior part formed a plain wall to the great cyst, and seemed much more solid, although apparently forming a part of the main globular or ovoid tumour. Section showed it consisted of cells, mostly of the size of an almond, close, and filled with mucus; thin walls, dense, fibrous, pale, rather vascular; many cells had apertures of communication, and the larger ones had others on their inner surface. One ovary, and broad ligament, thickened and expanded over the tumour; uterus enlarged and stretched. Second ovary probably first seat of disease. Bladder natural; liver pale, rather granular.

Case 100.

Mary J——, Petersham Ward, No. 4; admitted *Sept.* 13*th*, 1836, under the care of Dr. Ashwell; aged 30; single; short; thin; dark hair and eyes; born in Sussex; delicate health; last seven years in Boulogne, as nurse; catamenia appeared at 14; occasional amenorrhœa; menses occurred every fortnight, five months ago; ceased altogether for the last two months; ill eight months.

Her disease commenced with sudden pain in right inguinal region, followed by a hard, tender swelling, which rapidly increased, and passed to the opposite side; more rapid enlargement and anasarca for the last two months. Now, indistinct fluctuation; dulness on percussion; very distended veins; abdomen measures three feet six inches above the umbilicus; hardest in neighbourhood of umbilicus; difficult micturition; regular bowels.

Treatment.—Chiefly diuretics, occasional stimulants, with opiates.

Progress.—*Sept.* 23*rd*, abdomen measures 3 feet 7 inches.—30*th*, 3 feet 7½ inches. Œdema extends to loins; impeded respiration.—*Oct.* 4*th*, 3 feet 8 inches: vomiting of dark-green fluid: no nourishment taken.—10*th*, 3 feet 8½ inches.—14*th*, 3 feet 9 inches: in the upright posture all night; bowels confined for some days; legs very œdematous; calf measures 16½ inches.—15*th*, died at half-past 8 A.M., exhausted. She seems to have suffered much from pressure, owing to the unyield-

ing nature of the abdominal parietes, by which the stomach and thoracic viscera were greatly obstructed.

Inspection.—Each lung the size of two fists, and crepitant; pleuræ healthy; right ventricle distended, and valve very imperfect; copious coagula; abdomen filled with a large tumour; left ovary adherent by a white œdematous vascular coat; peritoneal cavity limited by extensive adhesions; intestines contracted, and coated with old, vascular, villous, serous membranes; ureters wide, thin, and distended with slightly coagulable urine; kidneys much enlarged, especially the left; coats easily separated; vertex studded with creamy spots, in different stages of softening; three or four inflammatory cells in the right kidney; uterus healthy; superior, anterior, and left portion of tumour formed of one cyst; its walls, less than one-sixth of an inch thick and vascular, containing a coffee-coloured fluid, with copious sediment of soft purulent fibrin; firmer sheets coating many parts of the walls, adherent to a deeply ecchymosed lining membrane, which was ulcerating in some situations; posterior part and base of the tumour formed by masses of cysts, and containing fluid of different colours.

Case 100.

Julia L——: Petersham and Mary's Ward, No. 1: admitted *Aug.* 13*th*, 1836: re-admitted *Nov.* 18*th*, under the care of Dr. Ashwell: aged 51: Irishwoman; having lived in England 40 years: formerly stout; now emaciated; nine healthy labours; three miscarriages: good general health; catemenia re-appeared five months ago, after ten months' absence, of a menorrhagic character; succeeded by soreness and general swelling of abdomen; ill five months.

The tumour commenced in the right side, without being perceived: increased: she went into St. Thomas's Hospital for two months; and was admitted into Mary's Ward this day. Right side of abdomen more distended than the left; and occupied by a hardened mass, which seems to rise out of the pelvis as high as the ribs: the whole of the left side is tense, and fluctuates; occasional pain and dyspnœa; much flatulence and tympanites; appetite good; secretions natural.

Treatment.—13*th*, Julep. Pot. Nit. t. d. Pil. Papav. c̄ Conii gr. v. o. n.—24*th*, Ung. Iod. abdom. Pot. Hydr. gr. ij. Iod. gr. ¼. Infus. Junip. ℥ ij. Tinct. Card. co. ℥i. t. d.—*Sept.* 1*st*, Acet. Scill. ℥ iv. Sod. Carb. q. s. ad saturat. Sumat Coch. ij. amp. b. d.—9*th*, Jul. Am. t. d. Fotus Papav. p. r. n. Soda Water. Emp. Sinap. scrob. cord.

Progress.—27*th*, abdomen measures 3 feet 7½ inches.—*Sept.* 1*st*,

3 feet 8¾ inches: urine scanty.—*9th*, 3 feet 10½ inches: more painful; more emaciated; respiration more difficult.—*11th*, anasarca: upright posture all night: at 7 P.M. the trocar passed two inches below the umbilicus: 10 quarts of thick, glutinous, straw-coloured fluid withdrawn: hard tumor on the right side then felt distinctly; it extends towards the mesial line, and upwards, into the right hypochondrium.—*16th*, cyst re-filling.—*19th*, 3 feet 2½ inches.—*Oct. 4th*, 3 feet 5½ inches.—*13th*, 3 feet 7¼ inches.—*Nov. 18th*, 4 feet: legs œdematous: considerable dyspnœa: veins enlarged.—*22nd*, dyspnœa very severe during the night.

Presented.

Case 101.

Hannah H——: Petersham Ward, No. 4: admitted *Oct. 19th*, 1836, under the care of Dr. Ashwell: aged 30: single: menstruation regular till within three years; when she caught cold, the discharge became deficient, and her legs swelled: it appeared three months ago: she is somewhat emaciated.

She said, on her admission, she had no recollection of the precise spot where the disease commenced: abdomen measures 3 feet 2¾ inches an inch below the umbilicus: it is uniform, slightly projects in the left hypogastrium; feels like an impregnated uterus: very little fluctuation, and that posteriorly: left leg œdematous: confined bowels.

Treatment.—M.M. c̄ M.S. b.d.—*24th*, Acet. Scill. c̄ Sod. subcarb. *Nov. 1st*. Cal. c̄ Col. gr. x. alt. noct.—*7th*, Quin. Sulph. gr. ij. Ext. Elaterii gr. ¼. Ext. Papav. gr. iij. t. d.—*25th*, Infus. Ros. c̄ Quin. Sulph. gr. iij. t. d.

Progress.—*Nov. 7th*, much the same.—*15th*, the elaterium has produced decided benefit: it is only taken occasionally, and causes headache, purging, and sickness: abdomen measures 1¼ inch less; and fluctuation slightly increased.—*29th*, a diminution of 3¼ inches: urine in good quantity: no œdema.

Nov. 10th: Presented.

Case 102.

Phœbe P——: Martha's Ward, No. 6: admitted *June 30th*, 1832, under the care of Dr. Ashwell: aged 23: an inhabitant of Deal previous to admission amenorrhœa for last twelve months; and impaired general health for about half that time.

Very little inconvenience till within the last year; since which, the tumour has grown rapidly; fluctuation perceived six or eight weeks

since; prior to this time, the growth was quite solid, without the slightest evidence of fluid contents.

Treatment.—Iodine, internally and externally, and in several forms, continued from the date of admission, till *Dec.* 21*st* of the same year, when it was permanently omitted; and leeches, blisters, refrigerants, and aperients, occasionally resorted to.

Progress.—More influence exerted over the urinary organs by the iodine than by nitre julep: this, however, ceased after nearly six months; and the iodine then occasioned head symptoms; the abdomen, however, had only increased two inches in size, and her health was not more impaired.

Presented, in much the same condition, *Jan.* 18*th*, 1833.

This patient died from cholera within a year after her discharge from the hospital. Up to the period of her decease, the tumour had been stationary in size; nor had the softening or fluctuation become more distinct.

Case 103.

REPORTED BY DR. ASHWELL.

Mrs. ——, aged 35, under the care of Mr. Rance and myself; married for 16 years, and has borne five children; of light and strumous aspect; has always been delicate, but not sickly; in her last pregnancy she had ovarian dropsy; and was tapped six weeks after her labour; 20 pints of yellow, viscid, and albuminous fluid were withdrawn; she recovered, and became again pregnant; ill 2 years.

Ovarian dropsy, and pregnancy of six months; few of the usual concomitants of gestation; she is large and unwieldy; pulse quick, but not feeble; embarrassed breathing, cough, and muco-purulent expectoration; œdema of legs and ankles; scanty and high-coloured urine; debility, and a relaxed condition of the bowels.

Treatment.—In *June*, 1836, diuretics, tonics, and alterative mercurials; nutritious diet, mild malt liquor, and carriage exercise.—In *August*, as there was no marked aggravation of symptoms, the plan was not varied.—*October* 1*st*, 1836, delivered of a healthy boy, and recovery tolerably good.—Till *December* 11*th*, paracentesis was avoided, champagne and good diet having been largely employed; but at this period, the distention was so painful, the pulse so quick and irritable, and there was such entire sleeplessness, that she begged to be tapped; she measured, round the umbilicus, 4 feet 7 inches; only 2 pints of viscid, dark-coloured, albuminous fluid could be obtained, as, unfortunately, only a small and distinct cyst was punctured.—*Dec.* 16*th*, para-

centesis, and 3 pints withdrawn.—*Dec.* 21*st*, again tapped; this time in the linea seminularis; and nearly 22 pints of the same kind of fluid were evacuated.

In a few days afterwards she sunk, exhausted by the disease. (No inspection could be obtained.)

Case 104.

Ann W——, Petersham Ward, No. 7; admitted *Oct.* 19*th*, 1836, under the care of Dr. Ashwell; aged 38; twice married; one child; always healthy; catamenia absent since June last; inflammation of the lungs last June, for which she was rather largely depleted; after recovery, experienced pricking sensations over the abdomen, for which she went to the Marine Hospital at Woolwich; ill 8 months.

On admission—ascites; abdomen flabby; tender upon pressure in right hypogastrium and epigastrium; parietes thin; undulation distinct; bowels costive; painful micturition; abdomen measures 2 feet $10\frac{3}{4}$ inches, its greatest diameter, an inch above the umbilicus, uniform; considerable œdema of the legs; abdomen very tympanitic.

Treatment.—Julep. Iodin. t. d. Ung. Iodin. abdom.—24*th*, Assafœtid. ʒi ex Aq. calid. o.i. o.n. pro inject.—27*th*, Acet. Scill. c̄ Sod. Carb.—*Nov.* 1*st*, Iodin. gr. $\frac{1}{4}$. Pot. Hydr. gr. ij. Infus. Junip. ℥ij t. d.—11*th*, Elat. Ext. gr. $\frac{1}{4}$ ex Infus. Junip. t. d.—13*th*, Fiant puncturæ. Pil. Ant. Opiat. fort. c̄ Hydr. submur. gr. ij quartis horis. Hirud. xxiv scrob. cord.—14*th*, Infus. Serpent.: c̄ Ammon. subcarb. gr. x quartis horis.

Progress.—*Oct.* 19*th*, abdomen measures 3 feet.—*Nov.* 7*th*, pain in back and loins: sickness.—13*th*, exposed to wet and cold in the water-closet; erysipelas commenced under the left side of the lower jaw; cerebral disturbance; tongue dry and black; severe pain in the abdomen.—15*th*, erysipelas extended to the whole of the left side of the face; five relaxed motions; abdomen measures 3 feet 3 inches; more dull on percussion.—16*th*, erysipelas extended to the right eye; skin of the nose suppurating; pulse very feeble, 120: takes no nourishment; died at midnight.

Inspection.—*Nov.* 17*th*, 1 P.M., peritoneum of parietes of a pinkish hue: serous surface dull, and a delicate layer of coloured fibrin adherent, but separable, the peritoneum beneath being pale and thin, and also separable; sediment of ascitic fluid plentiful, flocculent, and grainy, with large shreddy masses of pus-coloured fibrin; liver nodular, and unequally coated with thickened and dense old membranes; kidneys weak, very pale and flabby, and easily lacerated; cortical texture mi-

nutely granular; rather a thick layer adherent to the proper tunic, which seemed thickened; no urine; bladder natural: os uteri thick, solid and coated with mucus; ovaries much reduced in size, rugous and dense; jejunum œdematous; ilium and colon covered with minute spots.

Case 105.

OVARIAN DROPSY REMOVED BY ACCIDENTAL RUPTURE OF THE CYST.

COMMUNICATED BY DR. ADDISON.

The subject of the following case was received into the Female Clinical Ward of Guy's Hospital, on the 19th of March, 1834. The history, as taken by Mr. Bird, Clinical Clerk at the time, is as follows:—

"Ann Binks, aged 44, a tolerably healthy looking woman, who has been a widow three years, and who has always resided in London, states, that her health has usually been very good, till within the last five years. She had one child, 25 years ago; has never miscarried; and at the present time menstruates regularly. She has had some cough almost every winter. Five years ago she first noticed a swelling in the left iliac fossa, about the size of an orange, but which rapidly grew larger. For this, and for some general anasarca, she was admitted into this ward, two years ago. She was, at that time, about the size of a seven months' pregnancy. At the end of three months, she was discharged, cured of the anasarca; but still the subject of ovarian dropsy, the abdominal tumour at the period of her discharge, equalling the size of a five months' pregnancy. She, however, was able to go out to service; and continued tolerably well until Monday the 10th instant; when, being engaged in closing some heavy shutters, and standing upon a pair of steps for that purpose, her foot slipped, and she fell: pulling on her, in the fall, the steps, which struck her across the abdomen. She suffered at that moment excruciating pain, became sick and faint, and was then placed in bed, and had medical assistance procured. She now perceived that the fluid accumulation, which before the accident was circumscribed, had spread over the whole abdomen, rising to the diaphragm, and obstructing respiration. She appears to have then had an attack of peritoneal inflammation; for which she was bled, cupped, and leeched, with some relief; but being unable to perform her duties, she applied to be admitted here this day, the 19th of March. On admission, her face was pale and anxious, surface cold,

circulation languid, abdomen distended with fluid; and she complained of great pain on applying pressure over the abdomen generally, but especially over the lumbar and iliac regions. The bowels were open; tongue very red; she felt thirsty; her pulse was 98, and small; urine copious and very turbid; and she stated that she had occasionally passed blood by stool since the accident."

It is unnecessary to enter into any minute details respecting either the progress or the treatment of the above case. Her symptoms, on admission, were those of general peritonitis, and a slight degree of bronchitis: for these she was bled to a small extent, fomented, and had calomel, antimony, and opium administered internally. Under this treatment she improved; her gums were reported to be sore on the 22nd, after which the fluid rapidly decreased; so that on the 5th of April there was no fluctuation whatever, and the remains of the ovarian tumour could be distinctly traced, stretching across from one iliac fossa to the other.

On the 7th of April, the descent of the cyst, or some other change induced by the accident, appeared to offer an obstruction to the ascent of the blood through the iliac vein; she had an attack of phlegmasia dolens, but by no means severe, affecting the lower left extremity. This was subdued, and almost entirely removed in about a fortnight.

This woman is now, December 1835, servant in a family residing in Cheapside; and although she can still distinguish a small tumour in the left iliac region, she has never experienced any return of the dropsical enlargement.*

Case 106.

REPORTED BY DR. ASHWELL.

The following case I attended with Mr. Pilcher of the Webb-street School, and as it demonstrates the inefficiency of the bougie and injection, the nearest approaches to extirpation, I shall very briefly narrate it:—

* This patient was re-admitted into the Hospital in July 1836, and died in about a month. The body was much emaciated, the disease was evidently malignant, and the cyst contained about two quarts of dark and slightly offensive puriform fluid. In a similar case reported by Dr. Bright, the cyst never filled again, the patient became very much emaciated, and died in about two years.

Mrs. S——, aged 36, the mother of several children, had suffered, for some years, from ovarian dropsy. Mr. Pilcher had already tapped her six or seven times; and on one occasion, after the escape of a large quantity of fluid, an elastic catheter or bougie had been left in the cyst, for several days, without producing the slightest inflammation. Mrs. S—— was very anxious that something more decided should be undertaken for her relief; and, after the next evacuation of the cyst, it was injected by an enema pump, with several pints of a weak solution of the sulphate of zinc: the inflammatory symptoms were alarmingly severe, and her recovery was for some days doubtful. Eventually she rallied; but in a few weeks, to relieve excessive tension six or eight ounces were drawn off. The fluid, on this occasion, was not albuminous, as formerly, but fetid pus. In a short time, paracentesis was again necessary; and we were a little curious as to what might be the character of the contents of the cyst. True pus, slightly fetid, was evacuated, to the amount of eight pints, not more than a third of the quantity formerly withdrawn. Tapping was frequently afterwards necessary; and in about twelve months she died, completely exhausted by the disease.

The cyst is in the Museum of the Webb-street School.

OBSERVATIONS.

These cases are deeply interesting, as they furnish an illustration of many important points in the varying progress and result of the malady. In several of them the disease was proved either to have been malignant in its commencement, or to have become so during its course, the examinations after death, exemplifying nearly every kind of malignant change. Hence, although the accumulation of fluid, the marked feature in the majority of the cases, justified the appellation, Dropsy of the Ovary; yet it would in most instances have been exceedingly difficult to say, in what precise structure the affection commenced, or what was the order in which the component parts of the viscus became diseased. But it cannot be denied looking at the results of several of these inspections that the compound cystic tumour of the ovary resembles carcinoma in some points, while it differs from it in others.

Some of the cases, and others might have been added from writers of undoubted authority, show how rapidly patients sink, when accumulation has reached a certain point, and where,

from other circumstances, the fluid cannot be evacuated, or only in very small quantity. Nor is the result widely different, where the constitution has been alarmingly broken down, even if the tapping has been successful. In both conditions, the powers of life are exhausted, and after, or without the withdrawal of the contents of the cyst, the patient quickly dies.

The cases where re-accumulation and death occurred, after the rupture of the cyst and the escape of the secretion into the peritoneal cavity, deserve careful consideration.

The varying consequences of tapping, namely, the delay in the necessity for its repetition, and the continuance of good health afterwards, are replete with interest, especially in reference to extirpation. Nor is it possible to evade the conclusion, that in those cases, where the patient has the best chance of a comfortable and prolonged existence; the operation is most likely to succeed, a circumstance which greatly augments the responsibility of recommending so grave and dangerous a measure.

From a perusal of these cases, the contrast is painful between our little remedial controul over advancing ovarian dropsy, and the good which is so frequently obtained from medicine, even in bad cases of ascites. Nor can we hesitate to attribute this marked difference to the absorbent function of the peritoneum,—a power with which, if at all, the adventitious and serous ovarian cyst is only slightly endowed;—for, while it can no longer be doubted, after the demonstrations of Dr. Hodgkin, that these lining membranes of the diseased ovary possess arteries and veins, it has never yet been shown that absorbents exist in their structure. Absorption, I am aware, is not necessarily limited to peculiar vessels of this kind; but still, the pathology of these ovarian growths, and the effect of the remedies upon them, tend to the conviction, that absorption rarely occurs in their cavities. That the internal surfaces of these cysts secrete, there can be no doubt, and in this way they resemble the peritoneum; but here the similarity terminates; for while the absorbent power of the latter membrane is undeniable, the same function is only partially and doubtfully performed by the adventitious serous membranes. Corroborative illustrations are not wanting, where, after rupture of a cyst,

the fluid of ovarian dropsy has escaped into the peritoneal sac, and with or without treatment, has been entirely absorbed.

Hence, too, in the employment of mercury, iodine, and diuretics in dropsy of the ovary, we scarcely hope to accomplish more than such an increase in the healthy function of the kidney, as may enable us, by counter-secretion, to restrain the morbid ovarian effusion. It will not, therefore, be difficult to understand how it is, that we so frequently fail in the treatment of these common and painful maladies.

The statistics of these cases are instructive. In nine out of the twelve patients, there was deranged menstruation. Eight were, or had been married, four were single. Two had not been mothers; and the remaining six had produced only twenty-two children; fifteen of the number having been born by two women;—facts not altogether unimportant, where the ovaries are structurally diseased.

Negative treatment, or, in other words, an attention to the general health, avoiding, as much as possible, constitutional excitement and ovarian irritation, promise most favourably for the patient. The cases adduced, and many others, sufficiently attest the inefficiency of medicine; and as to the radical cure, it is so truly hazardous, as to be rarely even thought of.

Many patients pass through a long and comparatively comfortable life with a large ovarian dropsy; and more might enjoy this immunity from suffering, if marriage and parturition were avoided, and if self-denial and abstinence were rigidly practised.

In conclusion, I may perhaps be permitted to allude to a case in which the nitrate of silver appears to have restrained the accumulation of fluid. A lady, suffering from ovarian dropsy, about whom I was consulted by Dr. Petrie of Liverpool, had been tapped several times; and when she came to London in June, 1844, there seemed every probability that paracentesis would soon again be required. No medicine was given internally, except an occasional aperient; but once every week I applied the lunar caustic of sufficient strength to darken the skin in six or seven spots about the size of a shilling. There was sometimes a good deal of pain induced, and in a day or two slight dis-

charge; but cicatrization usually occurred in about a week or ten days, and then the same process was resorted to. Up to this time (November), there has been no further accumulation, and the patient's health continues good. She is to persevere in the same plan. How much or indeed whether any permanent benefit will be derived from this degree of counter-irritation, it is impossible to say, but certainly no harm has as yet arisen from the practice.

ORGANIC AND MALIGNANT DISEASES OF THE OVARY.

THE ovary may be considerably *hypertrophied*, all its tissues being implicated in the diseased change. Sometimes, however, the fibrous coat alone is affected, which I have repeatedly seen in aged women, in association with a hardened state of its internal cellular part; or there may be partial thickening of the fibrinous coat around old cicatrices of former impregnations; nor is at all uncommon to find one or several of the Graafian vesicles enlarged and hardened, their cavities being more capacious than natural, and occupied either with the remnant of effused blood or of coagulable lymph.

These changes are probably exceptions to the fact, that most of the enlargements of the ovaries are dependent on malignant disease. We have in Guy's Museum a remarkable specimen of solid fleshy enlargement of both ovaries. They exceed the kidneys in size, and form perceptible tumours above the pubes. They can hardly be considered malignant, as their structure does not at all resemble any form of such affection appertaining to these organs. The late Mr. Stocker has appended to their history the letter which accompanied the preparation, and as it is short, I shall insert it:—

"The woman had borne children; and when past the menstrual period of life, was seized with pains which were referred to the uterus. These continued more or less acute for two months, when a considerable indurated substance was perceptible in the regio pubis; referrible (as was considered) to a morbid state of the uterus. After this time a difficulty in making water added greatly to her sufferings; indeed it amounted to

inability in the erect position of the body; but the recumbent posture sensibly removed the only impediment to its discharge. From anxiety, which her intolerable pain induced, or from a combination of circumstances, she became the most emaciated object I ever witnessed. Jaundice supervened, attended with ascites; and in this precarious situation, some one, being consulted, took up the idea of its being a scirrhous liver, and recommended a moderate ptyalism to be raised and supported. The hardened substance before mentioned was considered by him as a continuation of the liver. Mercury, however, was only given in small quantity; and soon after she began its use, death closed the scene.

"I solicited an examination of the body, and have sent you the enlarged ovaries. The liver was perfectly sound."

ATROPHY OF THE OVARIES

Is probably more common than has been supposed (vide p. 537), although amongst a large number of preparations of ovarian diseases in the museum, we have scarcely any demonstrating this state. There is one, however, presented by Sir Astley Cooper (2223), "two bodies, which appear to be ovaries, very much wasted, and enveloped in fat." Lately in the body of a lady who had been long married without ever having been pregnant, I found the ovaries hard throughout, their internal structure entirely destroyed, their fibrous coat almost of cartilaginous induration, and their size did not exceed that of a large horse bean. This patient had suffered from dysmenorrhœa and amenorrhœa all her life.

FIBROUS TUMOURS OF THE OVARIES

Are occasionally found, sometimes in association with the same form of disease in the uterus; more rarely existing independently, either attached to, or imbedded in the proper substance of the organ.

These tumours may acquire immense size; and in an out-patient of Guy's, long under my care, the abdomen was half

filled by what I believe to have been only a fibrous enlargement of this organ. There was scarcely any pain, although she suffered much prior to its ascent above the pelvis, from pressure on the bladder and rectum, and from very frequent nausea. It wanted the stony induration of scirrhus, and there was never, while she was under my care, any fluctuation or any softening indicative of malignancy. She was not emaciated, nor, excepting when menstruating, was she disqualified for her domestic duties. Happily she never became pregnant after the appearance of the tumour; and when, at the age of 40, she left London to reside in Scotland, the tumour was quite stationary, and she appeared as likely to live as any other person at her period of life.

Professor Simpson has a specimen, taken from a tumour in the ovarian region, that weighed 56 pounds. It had been first observed about 20 years previously to death, in the right iliac fossa. It was then of the size of an egg, and had gradually increased from that period, till at last it rose as high as the diaphragm, and compressed even the cavity of the chest. The circumference of the abdomen after death was 5 feet 4 inches. The tumour was quite moveable within the abdomen, and was only attached at two points, namely, by a few old cellular adhesions to the larger omentum, and by its original pedicle to the right broad ligament in the site of the ovary. This last organ was apparently incorporated with the morbid mass, or at least was not visible. The uterus was healthy. In one portion the tumour was softened and disorganized, probably from compression of the vessels of that part, and consequent gangrene.

Cruveilhier remarks, that fibrous tumours of the ovary are so perfectly identical with those found in the uterus, that it is impossible to determine to which of the organs they have belonged.

Dr. Baillie entertains the same opinion, and says, "the ovarium is much enlarged in size, and consists of a very solid substance, intersected by membranes which run in various directions. It resembles in its texture the tumours which grow from the outside of the uterus, and I believe has very little tendency to inflame or suppurate." Examples are not wanting, where these fibrous tumours of the ovary have degenerated

into structures of cartilaginous and osseus hardness; thus preserving their resemblance to fibrous uterine growths. Generally there are only small portions of these substances deposited; and in a preparation in Guy's Museum, there is a patch of calcareous matter underneath the external coat.

It is by no means improbable, that some of the larger growths mentioned by authors, were not fibrous but scirrhous. Scrofulous and tubercular degeneration of the ovaries may be reckoned amongst their rarest diseases.

Amongst the *causes* of these tumours may be enumerated, peculiarity of constitution (a very inexplicable yet comprehensive term), falls, pressure and blows; although in most cases it is difficult to discover any specific or positive cause.

The *Symptoms* are rarely more than mechanical, as fibrous tumours are seldom attacked with inflammation. But while confined within the pelvic cavity, they may seriously derange the functions of the bladder and rectum; and either, while in this situation or when, from their size, they have risen higher, they may from their pressure occasion partial paralysis or numbness of one thigh and leg, and even œdema.

I have already explained what is to be done when a growth of this kind complicates labour; but, generally, when of large size, it interferes but little with the patient's comfort or the duration of life.

The *diagnosis*, between fibrous and scirrhous growths, is sometimes difficult, but the slow progress, good health, and freedom from pain will usually enable us to distinguish between these tumours and malignant disease. An examination per rectum will prove, if it be not large enough to occupy considerable space in the pelvic cavity, that it is ovarian, not uterine.

The *treatment* (where the tumour has not risen above the pelvic brim) is limited for the most part, to relief of the mechanical inconveniences by the catheter and aperient injections. Afterwards it is best to leave it entirely alone, excepting inflammation occurs, when of course, local antiphologistic treatment must be employed.

MALIGNANT DISEASES OF THE OVARIES.

Scirrhus of the ovary is thought by many pathologists to be more frequent than cancer of the breast, and almost as common as cancer of the uterus. Although my experience does not confirm this opinion, especially the latter part of it, I acknowledge, that malignant disease of the ovaries is not unfrequently met with, and (at page 126) I have narrated a case where scirrhus of both ovaries destroyed life before the 18th year. In this instance, the disease in both the organs was of large size, tuberose, and exceedingly irregular in shape. For six months before death there was amenorrhœa and excessive leucorrhœal discharge. Only palliative treatment was recommended, the extent of the disease forbidding active interference. A *post mortem* examination confirmed the opinion, that the uterus was perfectly healthy, and that the ovaries were entirely scirrhous, so much so as to have obliterated every trace of their natural organization. In this instance no softening had taken place; but such a change is not uncommon, and true scirrhus may co-exist in the ovary with fungus hæmatodes, or cerebriform disease.

Dr. Baillie saw a case where softening had commenced, the affection being coincident with cancer of the stomach. The preparation is in the Museum of the London College of Physicians.

Nauche says, "cancer may be developed in the ovaries, and run through all its stages. Occasionally it is hard and scirrhous, acquiring double or triple its ordinary volume; in others, it is a state of latent suppuration, terminating by ulceration. There form, in the neighbourhood, dilatation of the veins, and a deposition of cartilaginous and osseous substance."

In *fungus hæmatodes*, *encephaloid* or *cerebriform* disease, there is considerable variety of structure in the same diseased mass. Thus, in one part of such a growth there may be portions of fibrous, cartilaginous, or even calcareous hardness; while, in juxta-position with these, may be fungus, carcinomatous or melanotic productions, full of cells containing fluids of various

colours and consistency. The preparations in Guy's Museum fully elucidate these extraordinary complications of malignant ovarian disease.*

Dr. Lee's observations are confirmatory of these opinions: he says, "the ovarium is sometimes affected with encephaloid disease, or is converted into a large irregular shaped mass of cysts and tumours, the section of which presents all the characters of hœmatode fungus."

There is great variety in the size which these malignant productions attain. Sometimes they remain of moderate dimensions, not exceeding perhaps the bulk of the adult head, but there are cases recorded, and such I have seen, where the bulk was much greater; and Boivin mentions a case of encephaloid cancer of the left ovary which weighed seventy-five pounds.

Sometimes in the development of these tumours, dilatation of their cavities occurs; and from becoming partially filled with fluid, obscure fluctuation may occasionally be detected. I have several times been struck with the rapidity of their progress,

* Seymour's Illustrations, plates 12, 13, 14—pp. 66, 70, 74. See also Bright's Cases and Drawings of Ovarian Diseases in the 3rd vol. of Guy's Hospital Reports.

Dr. Seymour has described two varieties. The first consists "of numerous cysts, with more or less fluid contents, sometimes with bony or earthy matter contained in them; often a fatty secretion, resembling lard; sometimes penetrated with long fine hair, without bulbs; but more frequently filled with albuminous secretions of varying tenacity and colour. Sometimes these secretions resemble gruel in appearance: there is often matter like soot mixed with the fluid. At other times, the secretion is of the colour of mahogany from admixture of blood; and not unfrequently the liquid evacuated from one of these cysts, by the trocar, resembles, in consistence and colour, the medicine well known under the name of Griffith's mixture.

"Secondly, a single large cyst springs from the ovarium, and contains within it tumours varying from the size of a pin's head to that of an orange. Sometimes the great portion of the parietes of the cyst, consists of tumours, growing between the external and internal or secreting coat, the interior of the cyst having the tumours projecting into it, being filled with fluid secreted from the serous lining. The tumours, when cut into, present a semi-fluid gelatinous substance, with white bands running through it, between which bands are smaller cysts, containing the same viscid, glue-like matter."

"Sometimes these masses are formed of fibrous, cartilaginous, or osseous tissue; in other cases, they are almost entirely composed of encephaloid matter. The walls of the cysts are thick, and their cavities gradually enlarge until a tumour is formed, which fills not only the epigastrium, but the whole abdominal cavity. The outer surface of the tumour is unequal; in some points a fluctuation can be felt, while in others it has a hardness and density equal to bone." *Precis. d'Anat. Pathol. vol. iii, p.* 708. *Andral.*

and in a case of truly malignant affection I lately saw, not more than five months elapsed between the first appearance of the tumour in the right groin and the death of the patient, the growth having in that short time acquired enormous bulk. It is not uncommon, however, even for these diseases to remain in an indolent state for some weeks or months, and then an attack of inflammation, abscess or partial dropsy may occur in some portion of their structure, and rapid progress consequently becomes apparent. Adhesions to neighbouring organs, especially if the disease has not risen out of the pelvis, may seriously interfere with the patient's comfort by deranging the functions of the bladder or rectum.

It is difficult to assign satisfactory *causes*. Pregnancy and labour may hasten the progress of these diseases but as virgins are liable to the same maladies, these conditions cannot be regarded as extensively influential in their production.

Blows or falls, and excessive pressure from tight lacing, or indeed any circumstance provocative of chronic ovarian inflammation, may lead to the development of the disease.

Symptoms. — Neither menstruation nor conception are interfered with, so long as one ovary, or even a portion of one ovary remains sound. Already I have described the danger and the treatment to be pursued, where parturition is so complicated.

It is not often that any changes take place in the state of the tumour itself, till, having risen out of the pelvic cavity, softening occurs; when severe pain, rapid exhaustion, and malignant cachexia terminates the patient's life. Dr. Seymour observes, "the malignant form of the disease may be recognized during life, by the want of nutrition, and broken health of the patient, the uneasiness and rapid growth of the tumour, the simultaneous enlargement of glands in other parts of the body, and the occasional occurrence of lancinating pains in the parts. The latter symptom is not constant. The pulse is quick and feeble, and as the disease proceeds there is hectic fever, and often aphthæ in the mouth, with an inexpressible sense of debility."

It is not uncommon for effusion to take place into the abdominal cavity, from increased action in the peritoneal membrane,

although the period may be comparatively long between the first recognition of the disease and the development of the constitutional symptoms, it is certain ultimately that fever, quick pulse, and deranged stomachic functions, will lead to emaciation and death.

Treatment.—This is very limited: active medicines, as iodine and mercury, are worse than useless after the early stage; and if at any time pushed too far, will induce irritation and debility.

Soothing, palliative measures are alone proper, and whether by external fomentations, or internally narcotics in some of their various forms; will be eventually our only resource.

CHAPTER VIII.

ON THE DISEASES OF THE EXTERNAL ORGANS OF GENERATION IN THE FEMALE.

The external genitals of the female are the occasional seat of a variety of disorders. As organs of copulation, they may be infected with syphilitic disease, and are exposed to physical injury from too frequent or forcible sexual intercourse. The great distension which they undergo during the last stage of labour, and the severe and long continued pressure to which they are then liable, occasion lacerations, contusions, and inflammations, whilst their external position leaves them so far unprotected, as to subject them to accidental injury from blows, falls, kicks, &c. They include, too, a variety of elementary tissues, which carry with them their peculiar lesions; whilst their great vascularity, and their venous plexuses, add another source of local disorder. They are associated by direct continuity with the internal organs of generation; and hence the uterus often becomes implicated in a secondary way, and the general health eventually impaired. Their peculiar sensitiveness is morbidly manifested in the great suffering which attends their diseases; and, as they form the outlet of a very extensive mucous membrane, diseases which are established in a remote portion of the sexual or urinary organs, are not unfrequently felt at this, their peripheral extremity. Great importance, too, is imparted to these diseases from the fact, that irritation of the clitoris or nymphæ is apt to provoke venereal desires, which occasionally affect the mind, and induce a most painful form of insanity.

Amongst the particular diseases of the external organs of generation, the first to be noticed is:—

PHLEGMONOUS INFLAMMATION OF THE LABIA.

The external labia, like other analogous tissues of the body, are sometimes affected with acute inflammation and abscess. One labium only is usually attacked, and females of all ages, both married and single, are its subjects. The range of causes which may excite it is very extensive; but a larger number of them belongs to the married than to the single. Although the external organs are, from their position, well defended, yet falls and blows occasionally reach them, and inflammation and its consequences supervene. Sometimes the labia inflame and suppurate spontaneously, that is, without any apparent cause; and this is especially the case during pregnancy. More frequently, however, abscess is caused from the irritation of sexual intercourse indirectly or violently performed; and particularly when marriage has been prematurely contracted, these organs being tender, susceptible, and imperfectly evolved. Acrimonious discharges from the uterus or vagina, dysmenorrhœa, and exposure to cold during menstruation, may severally excite this complaint.

A sense of fulness, with pain and irritation of the labium, greatly aggravated on sitting down or walking, are the first indications. The part becomes swollen, hot, and red; and, as suppuration goes on, the pain is throbbing and severe. Sometimes the abscess is small and defined, and points to the inner surface of the labium; at others it is large and diffused, and burrows deeply in the surrounding structures. The nymphæ open to accommodate the increasing abscess, and the glands in the groin are sometimes sympathetically enlarged. An increased mucous discharge from the vagina, with sacral and lumbar pains, add to the suffering. When the inflammation is acute, suppuration is established in 24 or 48 hours; but sometimes, being indolent, a slough forms below, and the local disorder is ill defined and tedious in its cure. During the progress of suppuration there is much attendant fever, and even delirium has occurred.

There can be little doubt that phlegmonous inflammation of the labium would be frequently resolved, were patients to seek advice before suppuration commenced; but this is rarely the case. The attempt, however, is sometimes successful, when the softening is still indistinct. The patient should be kept strictly at rest, and from eight to a dozen leeches applied over and around the swollen part; and the bleeding must be encouraged by the constant use of a sponge dipped in hot water. When the congested vessels are thus relieved, a cold spirituous lotion may be applied over the part; or it may be advantageously supported, or gentle pressure applied by means of a well adjusted T bandage. The bowels are to be briskly purged, and saline medicines, with 15 or 20 drops of antimonial wine ought to be administered every four or six hours. When matter has formed, it may become a question whether the abscess ought immediately to be opened, or allowed to point and discharge spontaneously. For my own part, I am disposed to think, if the abscess is circumscribed and advancing quickly to the surface, it heals more quickly and kindlier when unassisted with the lancet: but if it be large, diffused, or indolent, or the patient's sufferings very severe, we may abridge the latter, and expedite the cure of the former by freely opening it. When this is accomplished, a poultice made with bread saturated with hot poppy decoction, will afford much relief. Sometimes the matter may burrow, and the sinuses thus formed greatly impede and protract the healing. Division by a bistoury, and the use of nicely arranged pressure, will suffice for their cure.

ENCYSTED-TUMOUR OF THE LABIUM.

Simple, single cysts are occasionally developed in the labium. They consist of a sac containing a transparent glairy fluid, which grows slowly, and without much pain. The cyst, owing to injudicious handling, sometimes inflames, and its contents are converted into a semi-purulent thin matter, tinged with blood. A good deal of irritation is set up in the vulva and the feeling of simple enlargement and fullness, which at first,

was alone felt by the patient, is now aggravated by heat and shooting pains, and tenderness on walking or sitting down. On examination, the labium is found swollen, but soft and yielding to the touch; and although sometimes the cyst may be defined beneath the skin; in general it is too diffuse and impressible to be so. The integument is unaltered in colour, and the absence of local action readily distinguishes it from an abscess. I have known much difficulty arise in the diagnosis of this tumour from hernia. Both diseases may occupy the same position, and the same soft, elastic feel is perceived in both. On careful examination, however, the distinctive signs of the more serious disease are absent. The cyst does not swell and distend under the action of coughing, nor can it be traced either into the abdominal ring, or the cavity of the pelvis, as is the case both in inguinal and pudendal hernia.*

These cysts are not to be removed by exernal application; neither iodine nor blisters will promote their absorption. They may be punctured with a small trocar and the fluid withdrawn from them, and the cyst may sometimes be obliterated by its sides being held together by means of a pad and bandage. It may also be entirely dissected out; or made to suppurate by a free opening in it; or by the insertion of a seton. Either of these means may be relied on for a cure.

The labia may be unduly enlarged as a natural formation; or they may become hypertrophied; or large growths of a sarcomatous or steatomatous character may be connected with them. These latter tumours sometimes become very voluminous, depending from the labium and hanging between the thighs. They are to be removed by the knife.

Under the designation of *oozing tumour of the labium,* Sir C. M. Clarke has described an affection of this part, whose distinctive and prominent symptom is a copious watery discharge. It is a rare disease, and attacks females who have passed the middle period of life, and whose constitutional powers have been impaired from too frequent childbirth, or

* A lady was lately placed under my care by Mr. Addison, of Burnham, where the diagnosis was not certain, till an exploratory puncture gave exit to some glairy mucus mixed with blood.

exposure to any other depressing causes. One labium is usually affected; but the other may be irritated into a similar action by the discharges from the first, and it may extend to the mons veneris. The labium is not in this disease converted into a large pendulous or prominent tumour; but its tissue is raised and extended, and its surface rendered irregular from a number of projecting elevations. When emptied of the fluid which runs from it, it still remains hard, and does not sensibly diminish in size. The discharge arises from furrows on its surface, without vesicular disease. In structure it appears to resemble the œdema durum, although the watery secretion is a peculiar additional sign. Sir C. Clarke has never seen a similar affection of the skin in other parts of the body. Some years since there was a female in Guy's Hospital, whose abdomen was very much enlarged from an enormous increase of the cellular membrane, which was firm, hard, and massive. Here and there, however, some largish vesicles were raised on the surface, from whence copiously exuded a clear transparent serum. A model of the abdomen with a drawing, are in the museum. I am disposed to regard this case as similar in character to the oozing tumour of the labium, exhibiting a like action in the cellular tissue, and occupying a very extensive surface. The accompanying symptoms are at first but slightly marked; and females are often willing to endure them rather than seek advice. As the fluid, however, increases in quantity, and bathes the surrounding textures, they become irritable and excoriated, and occasion much local suffering. Hence smarting and shooting pains about the inner side of the labium, with a general sense of heat in the external organs, and pain and heat in passing water, become troublesome symptoms. If the general health is much disordered, the fretting to which the mucous membrane of the vulva is exposed, may excite a state of erythema, which greatly aggravates the patient's sufferings.

This condition of the labium is not much under the controul of remedies. Contrivances to imbibe the fluid as it exudes, and prevent its running over the adjacent parts are important. Lint, moistened with cold water, or a weak solution of alum or sulphate of zinc, covered with oil-silk and supported by a

bandage, will be found to give relief. Spirituous washes too are useful. Powdered starch, or flour, or fuller's earth act as absorbents, and defend the part from the action of the air.

More real benefit, however, will be obtained by a close attention to the general health. Removal to a dry, bracing atmosphere is a matter of much importance; for the amount of discharge has been observed to be increased during damp weather. Sea-bathing or a hip-bath of bay salt and water may be prescribed. A nutritious diet, with a moderate quantity of stimulants, will aid much in establishing the impaired strength of the patient, and with these, chalybeates or the vegetable tonics may be beneficially associated. Should such means fail to check the discharge, and the fear of impending danger, or impatience of the inconveniences caused by the complaint urge the patient to demand it, the diseased labium may be cut off. This was done in a case related by Sir C. Clarke, the wound granulated kindly, and the patient perfectly recovered.

WARTY TUMOURS OF THE VULVA.

The external genitals are liable to warty tumours, which vary much in their appearance and size, as well as in the symptoms which attend them. They are frequently the result of syphilitic disease, or they may arise from neglect of cleanliness. Sometimes there is no evident cause; but they are apt to be induced by any disorder which keeps up a chronic inflammatory action in the sexual organs. They may attack the labia or nymphæ, or beginning at either, may extend to and involve the other parts of the vulva. In some cases we see these warty tumours growing slowly, and elevating the labium into a swelling, which, from being the size of a nutmeg, may become a large body weighing a pound or two. During their increase, the patient experiences little else than mechanical inconvenience. The firm, hard substance of the growth impedes progression, and interferes with the sitting posture. The labial integument becomes hard, thick, and corru-

gated, and the surface of the growth uneven and nodulated. The tardy increase of these tumours is sometimes suddenly changed for one of greater activity, and with an absolute enlargement of them, ulceration takes place in some part of their surface. This is followed by a copious fetid discharge, of so acrid a kind as to irritate and inflame the neighbouring structures. When this occurs, the general health begins to suffer, and the ulceration assumes a very unhealthy character. Warty growths spring oftentimes from the more vascular structure of the nymphæ, beginning as small, fungating, highly injected bodies, several of which coalesce and sprout up rapidly. Sometimes they cluster around the urethra, or are attached to the vestibule or clitoris. This form of warty growth is of soft structure, readily bleeding, and attended frequently with exquisite sensibility. It excites a good deal of leucorrhœa, and a fetid discharge accompanies it.

When the warty tumours of the labium have arrived at any magnitude, and especially if ulceration has taken place, the only available cure is the excision of the entire growth. I have seen this done in several cases, where the tumours were very large; and although much hemorrhage succeeded, yet pressure with cold or styptic applications, controulled it. We may frequently succeed in getting rid of the softer, fungating warts, by the application of savine powder, or by the continued use of the nitrate of silver. If they are pediculated or sufficiently raised, a ligature of silk twisted round a bunch of them, soon destroys their vitality by arresting the circulation; and their reproduction may be prevented by the lunar caustic. Powdered opium sprinkled around their base will frequently destroy them. Should they be in any way connected with a venereal origin, mild mercurials with tonics will be necessary. The liq. hyd. bichlord., with dec. and ext. of sarsaparilla and dec. of bark, is a valuable combination for the purpose.

INFLAMMATION OF THE MUCOUS MEMBRANE OF THE VULVA

Assumes various forms; sometimes it is diffused throughout it, as in erythema or erysipelas or the catharrhal affections of this portion of the genito-urinary tract. Not unfrequently it is attacked with a vesicular disease as eczema; at others, with a papular one, as prurigo. Besides these, an apthous inflammation of the vulva, extending along the vagina, and ulcers of different kinds unconnected with syphilis, may be noticed as belonging to the inflammatory affections of these structures. Several of these disorders, from the intense local irritation which they occasion, have been grouped together under the descriptive title of pruritus; but as this term designates only a symptom, while the diseases differ essentially from one another, we prefer subdividing them more accurately.

The entire mucous lining of the vulva may be attacked with *acute inflammation,* resembling the catarrhal form of inflammation in other mucous structures. It is a disorder which is often seen in young children, and is frequently excited in adults. It has been noticed to occur epidemically amongst the former, and the description of it by Mr. Kinder Wood, in the 7th vol. of the Med. Chir. Transactions, is full of interest, and most graphically pourtrays a frightful disease. Cases, however, such as those alluded to, have never fallen under my notice; and while I have seen more instances of a much milder form of this disease at one time than another, yet they have never been sufficiently numerous or connected with a particular locality to induce me to regard their occurrence as any other than casual; and certainly not to ascribe them to an epidemic influence. In the epidemic in Manchester in 1815, described by Mr. K. Wood, the pudendal affection was preceded for three days by pains in the head, and much disorder of the stomach and bowels, with chilliness and great general depression. The swollen labia assumed a livid aspect; and gangrenous inflammation, with a copious fetid acrimonious discharge, destroyed the parts; and

in ten out of twelve cases the children died. Boivin and Duges have described cases of phagedænic ulceration occurring epidemically, where the ulcers in the vulva of some of the children attacked, who were of a weak cachectic frame, presented all the characters of wounds affected with hospital gangrene. So far as I know, this character of disease is not seen in London; but a mild, and in general a manageable inflammation of the pudendum, is not unfrequently met with in children of all ages. In infants, a neglect of careful washing, increased amongst the poor and destitute by unwholesome and insufficient food, constipation of the bowels, and exposure to cold, are common exciting causes. I have frequently observed it come on during painful and difficult dentition, as one of many local expressions of the irritation which then pervades the integument and mucous membranes. Sometimes the accumulation of the thread-worm in the rectum, and their occasional presence in the vulva, having crept from the bowel, originates much irritation there, and gives rise to this affection.

Attention is first directed to these parts by the pain and dread which the child experiences in passing water, and the frequent attempt to relieve the irritation by rubbing them. This is particularly seen when the bladder is full, and the fear of the smarting pain induces an attempt to postpone the evacuation of the urine. On examination at the outset of the disease, the mucous lining of the vulva, especially around the prepuce of the clitoris and the vestibule, is swollen and much injected; and in a short time a clear mucous discharge succeeds and relieves the dryness which first attended it: the constitutional symptoms are generally inconsiderable, although I have sometimes known them to be very distressing. It is difficult, however, to say how much of the distant sympathy of the stomach and brain, which is occasionally seen accompanying this disease, depends on the other attendant disorders, whether of dentition, or ascarides, or general cachexia. Frequently, however, the rectum partakes in the irritation of the adjacent parts, as evinced by frequent small stools with much tenesmus. In a few days the clear mucous discharge becomes more opaque, and soon assumes a yellow puriform look. It is then no longer so acrimonious, and the parts become less vividly red, and the in-

flamed areola less distinctly marked. At times the inflammation is so acute and the discharge so acrid, as to cause excoriation and ulceration; and cases are related, where adhesion of the labia has been the result. The edges of the labia are often matted together by the drying of the discharge, and on separating them a quantity of shut up matter flows out. In this way the disease progresses, very much resembling the catarrhal affection of the Schneiderian membrane, and if properly treated is soon got rid of. Every now and then chronic cases of four or five years standing are seen, the mucous membranes becoming thickened and less sensitive, and in these, the habit of secreting is with difficulty destroyed. The similarity in the symptoms of this complaint and gonorrhœa have frequently led to the suspicion, that it has been produced by an infectious communication from the male sex; and hasty judgments, inculpating innocent individuals and destroying the peace of families, have been the result of this ignorance. The independence and distinction of the two diseases is now generally known; and in cases of doubtful character, nothing but incontrovertible facts can justify the worst conclusion.

The early treatment of this inflammation requires the little sufferer to be kept in bed, and the vulva to be freely bathed with hot poppy or conium fomentations, which ought to be kept to the part by lint soaked in the liquor, and covered with oil-silk, so as to preserve the membrane constantly moist. When the inflammation has abated, and the discharge becomes more bland, astringent lotions of sulphate of lime, nitrate of silver, or acetate of lead prove useful. The bowels should be kept open, and intestinal worms carefully looked after and if present evacuated, and the lost tone of the bowels restored by vegetable or mineral tonics. As there is generally a deficiency of constitutional power, a nutritious, but not a stimulating diet should be prescribed.

INFLAMMATION OF THE VULVA IN ADULTS.

An amount of simple superficial inflammation sufficient to cause much suffering, and to produce a free white discharge,

attacks the mucous membrane of the vulva in adult females. This is rarely referrible to cold as an immediate cause; and as rarely does it occur as a secondary inflammation from irritation in the neighbouring or more distant organs. An habitual disregard of cleanliness, and a consequent collection of the secretion from the mucous crypts, which after a time becomes solid and irritating, may produce it; but more commonly it arises from the injurious excitement of these parts by masturbation, or as the immediate consequence of marriage, or a licentious indulgence in sexual intercourse.

There is much pain and heat about the external organs, which, however, are not swollen, but are highly sensitive when the patient walks or sits down. The urine scalds when passed; and although there is much pruritus present, yet the parts are too tender to allow of their being roughly touched. On examination the mucous membrane is seen to be uniformly red, and the vagina, for the first half inch of its extent, partakes in the painful sensibility of the vulva. The discharge, which is of the white mucous kind, and sometimes more transparent, is diffused over the inflamed surface, and is frequently mixed with a leucorrhœal secretion. This form of inflammation does not in any way affect the uterus, nor do I believe that diseases of the uterus excite it.

The inflammation may be so acute, and so deeply involve the pudendal structures as to occasion suppuration, which, by extension, may include the vulva or lower part of the vagina. But if the case is taken in time, and means adopted to lessen the inflammation, abscess rarely occurs. The recumbent posture, the sedulous use of poppy fomentations, and mild laxatives and salines are the appropriate remedies. When the inflammation is abated, lotions of the acetate of lead or sulphate of zinc are very serviceable, and stop the leucorrhœal discharge. The patient must be enjoined to abstain from sexual intercourse until the parts are quite restored; as a too hasty abandonment of this restriction has in many cases been followed by a recurrence of the acute symptoms.

ECZEMA OF THE VULVA.

This affection of the external genitals is characterized by an eruption of small vesicles scattered over the mucous lining of the vulva, or the adjacent integument of the labia. They soon burst, and their fluid mixes with the ordinary vaginal discharge; or when at the margin of the labium, they dry up and scab. Eczema comes on during pregnancy, and constitutes one of the disorders of that state, although woman are by no means exempt from it who are unimpregnated. It is frequently associated with much disorder of the digestive organs, and probably the dyspepsia which comes on during pregnancy, from the indulgence in fancied articles of food, and habitual repletion, may account for its prevalence at this time.

The most prominent symptom in this complaint is the excessive pruritus and smarting which it occasions. This, indeed, is frightfully harrasing, and it almost constrains the patient to rub the parts, with the hope of temporarily appeasing it. Instead of abating, this only aggravates the evil, and diffused inflammation with excoriation and ulceration, are frequently superinduced. The general health materially suffers, and the patient becomes weak and hysterical. The parts are so very tender and irritable, that the most gentle attempts at separating the labia and stretching the mucous membrane, causes severe suffering. There is always a great deal of discharge, and the lining membrane is seen to have superficial excoriation on it.*

In treating this local complaint, we must attend carefully to the digestive organs, and secure habitual relief from the bowels. An alterative dose or two of blue pill, succeeded by some saline medicine, will contribute greatly to this end; and the alkaline carbonates, with some mild vegetable tonic, as sarsaparilla, cascarilla, or the compound infusion of gentian, will subsequently be of much service. Some of the mild cases are readily relieved by the application of a solution of nitrate of

* An aphthous state of the vulva, extending to the vagina, has been well described by Dr. Dewees, as a concomitant of pregnancy. I have seen eczema put on this appearance when the parts have been inflamed by friction, and I am disposed to ascribe the aphthous look of the surface to this cause.

silver, whilst others require sedatives, both internally and locally, before the parts will bear any such remedy. Great attention to cleanliness is of much importance. In some of the obstinate cases, we are called upon to vary the local applications. The black wash with opium is sometimes very efficacious, or hydrocyanic acid in water, or the acetate of lead in solution.

PRURIGO OF THE VULVA

Is a very troublesome affection, attacking females most frequently at or about the cessation of the menses. Its characters as a papular disease are most faintly marked, and the parts are little altered by it. The suffering which is induced from this complaint is most distressing. The vulva is the seat of a tormenting irritation, which is increased by the warmth of the bed, and the patient instinctively rubs the part, and is fit, as she expresses it, to tear herself to pieces. Venereal thoughts are often excited from this irritation of the sexual organs, and they sometimes become so dominant and imperious as to constitute a form of mania. Leucorrhœa comes on, which weakens the vagina, and pelvic weight and pains are added to the other local symptoms. After a time the genitals, especially the labia and nymphæ, are somewhat enlarged, and the mucous membrane loses its vascular appearance, and assumes a white soddened look. I have several times noticed this change in the mass and colour of these parts. The general health soon suffers; the constant loss of rest and watchfulness induces much nervous derangement; the bowels become irregular; the appetite impaired; and defective nutrition is seen in the loss of flesh and pallid aspect of the patient.

This disease is sometimes very difficult to remove. It may last for months or even years; sometimes being better, and again becoming worse. I have known it come on after labour, and harass the person for a length of time in spite of the remedies employed. The local means which are indicated for the relief of this complaint, are the various kinds of sedatives, some of which have been enumerated in the treatment of eczema. Tar, or a diluted kreosote ointment, or a tar-water hip-bath, may be tried with occasional relief. The patient ought to be

well apprized of the injury she sustains from rubbing the parts. The bowels are to be carefully attended to, and the general health to be maintained by a nutritious diet and tonics. Sedatives in the shape of hyoscyamus and camphor, &c., and occasional opium suppositories, are indicated to allay the local and constitutional irritation.

It requires to be well remembered, that pruritus of the external genitals is associated with other diseases than those of the vulva. It belongs in a marked manner to some diseases of the uterus and its appendages, and to affections of the urinary bladder and its meatus, and frequently is the all-absorbing symptom in the mind of the patient. I have on some occasions admitted patients into the ward for some supposed affection of the vulva, which has turned out to be pruritus from disease of the bladder. In these cases we can only hope to cure the symptom by diligently seeking out and treating the disease which originates it; although the local application of sedatives will do much to mitigate its severity.

My attention has been directed by Dr. Oldham to an affection of the vulva which, from its seat, he has denominated, "Follicular Inflammation of the Vulva." I subjoin his account of it:—

"The follicles of the mucous membrane of the vulva are both numerous and large, and I believe them to be the seat of a very intractable and most painful disease. It consists of a number of slightly raised, highly vascular points, clustering around the elevated border of the orifice of the urethra, and skirting the margins of the nymphæ. It does not extend to the labia, or vestibule, or clitoris, and the vagina itself is quite free. These points are sometimes isolated and small; but as the disease progresses, several of them coalesce, and here and there a minute speck of ulceration may be seen in their centre; but little or no swelling accompanies it. The cases I witnessed, have been in married women, of nervous and excitable temperaments, who had borne the disease for a long time before the parts were examined and its real nature detected. The symptoms are a severe, smarting, shooting pain in the vulva, which renders the sitting posture exceedingly painful, and is much increased by walking. Sexual intercourse is at first attended with much

pain; but in a short time the dread of it is so great as to forbid it altogether. The sphincter vaginæ is closely contracted, and so shuts up the canal, that the leucorrhœal discharge, which is always abundant, accumulates in the vagina, and when it does escape, flows profusely. On examination, the slightest touch of the inflamed points, or the gentlest separation of the parts, makes the patient call out with pain. The vagina and uterus do not participate in the disease, and menstruation and gestation are not necessarily interrupted. When once the finger passes beyond the ostium vaginæ, no further pain is experienced in tracing it along the canal, or feeling or balancing the womb; but a quantity of puriform fluid which had freely bathed these parts passes out with the finger, the patients do not complain of pruritus so much, and there is little fear of friction; neither indeed is micturition painful, although the under edge of the urethra is commonly affected. The general health is soon impaired, and the patient becomes hysterical, and far less able to endure the local sufferings."

It is difficult to assign the cause of this disease, a want of cleanliness has not been apparent, nor is it associated with any syphilitic taint. So far as my experience goes, it has not been the physical result of too frequent or forcible sexual intercourse, nor in any case has it attacked newly married females. In one case it came on a year and a half after marriage, when the womb was disordered; but the uterine affection disappeared and pregnancy occured, although the disease of the vulva continued and tormented the person for 5 years.

The appearance of the affected parts is so distinct, that I do not think it can well be confounded with the other diseases of the vulva. And yet, I suppose Dr. Churchill must have seen it when he speaks of the intense pain, equal to cancer of the womb, which he has known to accompany inflammation of the vulva in the adult; and "a more circumscribed inflammation which may attack any portion of the vulva, and is often seen merely surrounding the orifice of the urethra, and occasionally confined to the clitoris." The diffused character of the inflammation is sufficient to distinguish the catarrhal disease from that which I am describing, and it differs from eczema in the absence of vesicles, and from both in the difficulty of cure.

I confidently hoped that the application of the nitrate of silver would cure this complaint; but even after a full trial it failed. I destroyed the little patches and caused them to slough, and only a short truce from pain was the result. In a week or ten days, however, they re-appeared, and baffled every effort to destroy them. The use of the poppy hip-bath has given temporary relief, by quieting irritation; but neither this nor any opiate has done more than assuage the pain. Mercurial washes with opium were attended with like want of success; and lotions of acetate of lead or sulphate of zinc varied the remedies, but did not effect a cure. Leeches, too, have been applied, and kreosote and tar ointment, but without gaining materially on the disease. With these I have given copaiba or olibanum, and have maintained the strength and quieted irritation by sarsaparilla, quinine, with the tincture of hop and henbane, which have been of service, but have not altered the local affection. Such a uniform want of success induced me to try the effect of a mild mercurial course; and the result of it has been most favourable. I gave the liq. hyd. bichlor. ℥i in the compound dec. of sars. with the extract 3 times a day, and freely anointed the parts with an ointment made of 2 drachms of hydrocyanic acid with one of the acetate of lead, well rubbed up in an ounce of the cocoanut oil. This application has been of great service in most of the painful diseases of the vulva, and particularly efficacious in this. The irritation and pain of the parts have been greatly relieved by this plan, and eventually all traces of inflammation disappeared, and sexual intercourse has been resumed without producing suffering. During the treatment of this complaint, it is of moment to keep the patient as much in the recumbent posture as possible, without absolutely restricting her to it, and to observe the greatest cleanliness and guard against cold. Change of air contributes greatly towards restoring the lost strength, and diminishes the constitutional irritability which soon appears in the course of the complaint. The following is an illustrative case:—

Case 108.

Mrs. B——, æt. 28, residing in the Hackney Road, consulted me at the desire of her medical attendant, for supposed leucorrhœa, for which he had treated her, with but partial success, for 18 months. She has been married 9 years, but without pregnancy, and her health was good until 18 months since, when she experienced great pain at the vulva, and was much troubled with leucorrhœa. The remedies which were prescribed sometimes relieved the pain; but the intermission was of short duration, and lately her sufferings much increased.

I found the health greatly impaired: the patient was timid, hysterical, and unable to endure the least fatigue; her tongue was furred, flabby, and tremulous, and her appetite capricious; she had lost flesh, and was in a very desponding state of mind. She had dreaded intercourse for some time, and on sitting down she would rest on one ischium, and so adjust her seat as to lean only lightly on the affected part. On examination, I found the inner surface of the nymphæ dotted over with several raised granulations, with here and there slight specks of ulceration. These were highly vascular and exquisitely painful, and when the parts were separated, two or more spots would bleed. The sphincter vaginæ was closely contracted; but the canal itself and the uterus were quite free from pain, and a quantity of puriform fluid passed away from the vagina, when the finger was withdrawn.

The treatment of this case extended over a period of 10 months, during which the patient from time to time visited me; having allayed the irritation of the parts somewhat, by keeping her in bed and using narcotic fomentations with saline laxatives. I touched the surface with the nitrate of silver, which caused much pain, requiring opiates to secure her any rest. Decided relief followed the use of the caustic, which induced me to persevere with it for some time; but, after a menstrual period the disease returned, and little permanent benefit was obtained. Strong nitric acid seemed to destroy the diseased spots, and the slough which it caused was attended with less suffering than what she ordinarily endured; but when the sore healed, the disease again showed itself. Lotions of sulphate of copper and zinc, oxide of zinc with opium, black wash with opium, kreosote and tar ointment, and leeches to the vulva were severally had recourse to, but with nothing more than passing benefit. Sarsaparilla with iodide of potassium and other vegetable tonics, with sedatives, were prescribed to relieve her general weakness. The leucorrhœal discharge was much abated by the

following medicine from the Guy's Pharmacopœia, which I have frequently used with marked advantage :—

℞. Olibani, ʒij.
Mellis, ʒiij.
Dec. Cinchon. ʒv. M. ft. mist.
Capiat cochl. ij ampla ter in die.

There was not the slightest suspicion in this case of any syphilitic taint; but I determined to place her under a gentle course of mercury, which consisted of a drachm of the liq. hyd. bichlo. in the compound dec. of sarsaparilla with the extract, twice in the day, and an ointment, of which hydrocyanic acid formed the principal ingredient, to be constantly applied to the parts. In three weeks time the gums were slightly touched, and she was much better; the pain was greatly relieved, the discharge much abated, and the inflamed follicles less numerous, and far less sensitive. She went into the country for a month, and reduced the amount of the mercury to one dose every other day; and when she returned she was all but well; the vulva was still sensitive; but no trace of the disease was apparent; she had indulged in sexual intercourse without pain, and had gained flesh and strength. This woman menstruated regularly throughout her illness; but when the caustic was applied, she had a coloured discharge from the left nipple, which was turgid and painful, and the mammary gland became irritable.

ENLARGEMENT OF THE CLITORIS.

Before puberty the clitoris is a prominent body, protruding beyond the labia, but in the fully developed organs, it is covered and concealed by these folds of the integument. Sometimes, as a congenital defect, it retains and far exceeds its early relation to the other parts of the vulva, and appears in the adult as an elongated body; disproportioned to the adjacent structures, and resembling the male sexual organ. It is in this state, where the vagina and other female organs are perfect, that hermaphrodism has been supposed to exist. This malformation of the clitoris produces few symptoms beyond those of a mechanical nature, and these can only be cured by an excision of the overgrown organ.

This part of the vulva however, is liable to a morbid hyper-

trophy, which is sometimes attended with distressing symptoms. The volume which it may attain is enormous; and cases are recorded where it has exceeded in size a full grown fœtal head. I have never seen it so large as this, but in my own observation, it has appeared as a lengthened growth, varying from 1 to 3 or 4 inches in extent, and sometimes bulging and spreading out at its free extremity.

As erectile tissue enters largely into the structure of the clitoris, and the cavernous bodies are distended during venereal excitement; it has been imagined that frequent sexual indulgence has been the common exciting cause of the hypertrophy. My own observation leads me to regard an abandoned life, or what is perhaps a still more pernicious excitant, a secret self-pollution, as an occasional cause of this organic disease. But the researches of Parent Duchatlet, and the observations which I have been enabled to make at Guy's Hospital, prove that there is no necessary connection between an habitual sexual indulgence, and the permanent increase of the clitoris. Out of 6,000 registered prostitutes in Paris, only three were affected with this disease; and I have often been struck with the integrity of the external genitals in prostitutes, while the uterus and ovaries have been bound in all directions by bands of false membrane. It is the internal organs of generation which receive the impression, and become the seat of morbid changes, resulting from licentious habits; although physiologically speaking, the clitoris is regarded as the seat of the pleasurable feelings which spring from sexual coitus.

The symptoms which attend this affection are by no means uniform. In some instances the mucous membrane becomes so dry and indurated, so much, in fact, like ordinary skin, that the friction it is subjected to has no prejudicial effect, and does not produce pain or excitement. The practitioner is consulted about it from the feeling, that the formation is irregular or unnatural, or from a hinderance to sexual intercourse: and perhaps, too, from some slight mechanical impediment to free and unrestrained movement. When, however, these insensible enlargements have reached a greater magnitude, they are apt to excoriate and ulcerate on their lower surface, which causes much local irritation, and, if neglected, may injure the general health

Sometimes an enlarged clitoris is marked by exquisite sensibility of its mucous surface. This occurs usually in women of an irritable, excitable temperament, and may attack young females soon after puberty, or at any later period of life. The effect of this morbid sensibility is felt beyond the local pain which it produces. It frequently gives rise to sexual passion, and subdues every feeling of modesty and delicacy. I have been consulted about young females who have become the subjects of these tormenting emotions, always aggravated by digitation. The consequence of this physical attempt to assuage the local irritation, has been to inflame and ulcerate the part, causing also a copious leucorrhœal discharge, with painful and irregular menstruation. The health soon becomes impaired, constant headache, referred particularly to the occiput, is present; and there are sometimes frequent attacks of hysteria. The mind loses all discipline, and the thoughts and expressions assume a sentimental and amatory character, while compassion and pity are sought to be elicited from the attendants. This train of symptoms, which may extend to a genuine nymphomania, appears to originate exclusively from an excited, enlarged, and sensitive clitoris.

In the treatment of this affection, we must be guided by the attendant symptoms. If the growth is insensible, and relief is sought from its mechanical annoyance, or if it put on an unhealthy ulceration, the best way is to excise it; for we cannot hope to obtain absorption, or sensible diminution of its size, by any medicinal means. Excision also is required when the growth is attended with undue sensibility; but in cases where the clitoris is not very large, we may probably succeed in arresting its further growth, and relieve the distressing feelings of the patient, by keeping her at rest on a mattress, and applying cool saturnine lotions. A few leeches may be applied near the part, if inflammation has been excited, and pencilling it with a solution of nitrate of silver, every two or three days, is a valuable topical measure. Hydrocyanic acid in solution, will be found very effications as a lotion. The health must be supported by mild vegetable tonics with mineral acid, and a nutritious but unstimulating diet. A cold shower-bath every morning, or

every other morning, will relieve the headache, and is an excellent hygienic auxiliary.

Hard fungating growths are sometimes seen springing from the clitoris; and warty excrescences will spread from the vestibule and involve the prepuce of the clitoris. It is also the occasional seat of malignant disease, which runs its course as in other parts, and may infect the neighbouring inguinal glands and destroy, by a more extensive propagation to the lumbar glands and other abdominal structures. I have never known excision of a clitoris affected with malignant disease, do more than suspend the cancer, which has speedily re-appeared in the original or adjacent parts.

VASCULAR TUMOUR OF THE MEATUS URINARIUS.

This is by no means an unfrequent affection of the mucous membrane of the urethra. It usually attacks the young, whether married or single; and very rarely is seen after the cessation of the menses, when the urethro-sexual passages are less subject to vascular turgescence. It consists of a small granular tumour, generally pediculated and moveable, attached to one part of the margin of the meatus urinarius or just within the urethra, whose two prominent characteristics are great vascularity and exquisite sensibility. Sometimes these growths are not moveable but appear like several raised coalesced granulations, or occasionally two or more isolated and independent ones may be seen near together. Every now and then they extend partially along the urethra, and may even be located at the neck of the bladder. They are covered by a delicate, pale membrane, which is broken on being touched during examination, and blood exudes from the soft, feeble, and injected capillaries. The symptoms which attend the growth of these vascular bodies, mainly arise from their great tenderness, and the suffering occasioned by their being touched, or in any way interfered with. Thus, if they intercept or come in contact with the stream of urine, the act of passing water causes intense suffering; and this is usually the first and most constant symptom of the com-

plaint. After a time the urethra and bladder become irritable, and the frequent desire to micturate is suppressed by the dread of the pain which it excites. Sexual intercourse is intensely painful, and is therefore obliged to be suspended. Walking exercise is attended with suffering, and in fact any movement of the vulva, by slightly displacing or pressing upon the growth, produces instant pain. Leucorrhœa accompanies this affection, and is sometimes profuse. There is much weight about the pelvis, with lumbar pain, and pains in the upper part of the thighs; and the vulva itself is the seat of much uneasiness and irritation. There can be no difficulty in recognizing this complaint when once an examination is permitted, which is generally willingly granted.

The main trouble we encounter in the treatment of these tumours, is their tendency to re-appear. If they are snipped off with scissors, and the part allowed spontaneously to heal, there is every probability that it will repullulate and cause the same symptoms. If these growths are not moveable, and attached by a pedicle, I have found that the diligent application of nitrate of silver, freely applied over and around them, will eventually get rid of them; but the process of destruction is tedious and attended with great agony. It is generally, indeed, necessary to apply opium to the part after the application, and to sooth the patient by some morphia or extract of hyoscyamus at night. If, however, they can be easily reached, they should be drawn out from the meatus, so as thoroughly to expose their attachment, and then removed by a pair of curved scissors; detaching, at the same time, the mucous membrane to which they are affixed. After this the excised part should be touched with nitrate of silver, which should be repeated occasionally until the wound heals. I greatly prefer this plan of treatment to the application of a ligature, which is attended with more pain and irritation, and needs the same subsequent attention. Should the deeper parts of the urethra be affected, a bougie must be passed, smeared over with extract of belladonna, or with an instrument nicely contrived for the purpose; nitrate of silver may be efficiently applied.

THICKENING OF THE CELLULAR MEMBRANE SURROUNDING THE URETHRA.

This affection of the urethra was first described by Sir C. Clarke, and consists essentially of an inflammatory hardening and thickening of the cellular structure, with a corresponding increase in the erectile tissue of the part. The veins particularly become varicose and distended, when the patient walks about or stands for any time. It occurs in women who have had large families, and the cause of its production is the vascular turgescence of the urethra and sexual canal, and the pressure to which both are subject during gestation and protracted labour. On examination, an enlargement is distinguished behind the pubes, and the entire urethra may occasionally be felt fuller and more than usually distended. If the patient be made to bear down freely, and the labia be separated, a portion of the urethra is seen, raised and tumid, of a dark red, or even livid colour, from the great increase of the vascular tissue. These blood-vessels contribute materially to the hypertrophy of the part, which may be sensibly lessened on pressure being applied, and the blood directed into other channels.

This disease is sometimes of a comparatively trifling character, the attendant symptoms being slight, and borne without complaint by the patient. A sense of weight and discomfort about the part, increased on walking or standing, with an endurable amount of pain in sexual intercourse and micturition, may be all the annoyance which is experienced. But this applies only to a mild form of the complaint, such as may be seen after labour, and forming one amongst the lesser troubles which protract the getting up, but which may eventually disappear under rest and astringent lotions. In the worse and more common form of this disease, there is much harassing suffering. The lining membrane of the urethra becomes painful, and its softened tissue may be excoriated, leaving an irritable surface. The canal itself is sometimes interrupted by the formation of a pouch in its posterior wall, in which a small quantity of urine remains, keeping up much local irritation.

I have sometimes seen small abscesses form in the thickened tissue beneath the mucous membrane, which had given way, causing severe suffering. The general health is impaired from the broken rest which is thus induced; and the mucous membrane of the vulva and vagina participate in the irritation, and give out a copious leucorrhœal discharge. In one case which was lately under my care, the suffering, which was severe, mainly arose from pruritus and smarting of the vulva. In this case a pouch, which held about two or three drachms of urine, was felt protruding the whole of the vagina, from which place it was readily emptied by pressure.

In order to relieve this condition of the urethra, it is necessary to keep down the tumid blood-vessels, which may be effected by emptying them of blood by opening or leeching them, and afterwards applying some astringent lotion to reduce their morbid size. This is best effected by a solution of the nitrate of silver, which is often alone sufficient to cure the complaint. The horizontal posture is necessary, as the veins quickly distend when the patient walks or stands, the catheter must be passed occasionally, and the urethral pouch kept empty. If the suffering occasions much watchfulness, and the constitutional symptoms increase, it will be necessary to give sedatives to procure sleep; and mild tonics, as the citrate of quinine and iron, the impaired strength: sexual intercourse should be suspended. The hypertrophied tissue may also be reduced by means of bougies, or, as Sir Charles Clarke advises, by the application of a piece of wax candle or a roll of linen well wetted with some astringent solution, as of alum, or the diacetate of lead, or the sulphate of zinc.

DISEASES OF THE VAGINA—PROLAPSE OF THE WALLS OF THE VAGINA.

The vagina, as a copulative organ, and in its relation to the uterus as an efferent duct, is obnoxious to many different diseases. In common with the structures placed within the vulva, it is sometimes affected with erythematous inflammation, and is the common source of leucorrhœa. Warty growths may

vegetate within it; its veins may be enlarged into varices; and one or more of its mucous follicles may be filled out into a fluctuating encysted tumour, closely allied in its mode of formation to the encysted tumours of the labium, or the sebaceous cysts in the skin. Polypoid growths spring from its submucous tissue, carrying the lining membrane before them, and either partially or entirely block up the passage, or protrude beyond the ostium and resemble in their size, appearance, and situation, the procident womb. A case of this kind was lately under my care in the Hospital, in which a growth the size of a large hen's egg, covered by the rose-coloured mucous membrane, had passed the orifice of the vagina, and had been mistaken for the protruded uterus. The lower surface of this growth had a large circle of ulceration very similar in its direction and aspect to that which takes place around the os uteri when the womb has been unreduced for any length of time. A careful examination soon detected the absence of the os uteri, and the womb was felt in its proper situation. The growth was excised by Mr. Key, and the patient quickly recovered. These tumours do not bleed, being composed of cellular tissue and fat, and a few blood-vessels; but their vascularity is by no means striking.

Congenital defects and malformations of the vagina are not unfrequently met with. Its orifice may be entirely closed, not only by an imperforate hymen, but also by a curtain of the common integument. The canal may be too short, terminating abruptly in a cul-de-sac; or a congenital stricture may be formed, retaining the menses, which collect behind and dilate the lower part of the uterus.* A perfect septum may exist, showing the original duality of the duct, which in some rare instances may coincide with a double uterus and two mouths, a perfect specimen of which deformity is in Dr. Oldham's possession. The occurrence of fistulous communications between the vagina and the rectum and bladder, may exist as malformations, or be induced from the separation of a slough after a protracted or instrumental labour. Adhesive inflammation sometimes follows a like physical injury to this part, which may partially or

* Vide Rusher's case, with a drawing in Guy's Reports, vol. 2nd, p. 244.

almost entirely obliterate the canal, leaving only a small sinuous channel through which the menses make their way, and through which, unfortunately, the semen may be transmitted and impregnation ensue.

The anatomical relations which the vagina bears to the urethra and base of the bladder in front, and the rectum behind, expose its walls to be displaced, and even everted, from the mechanical encroachment of either the one or other of these adjacent organs. An entire eversion of the vagina is usually associated with a procident state of the womb, of which it is but a secondary effect. In the same way, only as a far more rare and accidental occurrence, either one or other wall of the vagina, the posterior one more frequently, may be carried forward, and even partially prolapsed by the increase of any growth which is placed between it and the adjoining organ. Thus an abscess, or encysted or hydatid tumour may directly produce a slight prolapse of the vagina. But, independently of these causes, we find the vagina protruding beyond the vulva, and forming a large swelling, in the formation of which either the anterior or posterior wall, or even the entire cylinder, may be involved. For the production of this affection, the vaginal parietes must be in a relaxed and yielding state, which is usually brought about by habitual leucorrhœa, or in women of loose fibre with large pelves, who have borne many children. In persons so circumstanced, an accumulation of urine in the bladder, or of fæces in the rectum, is sufficient to distend the nearest wall of the vagina, which readily yields before it; and, after a repetition of this process, the swelling bulges out, and the mucous membrane of the vagina is exposed. The volume and physical character of the swelling differs according as the contents of the rectum or the bladder compose its bulk. If the bladder has protruded the wall, forming a vaginal cystocele, the swelling is globular and elastic, and imparts, on handling, the sensation of its fluid contents. On examining it, the mucous membrane of the vagina is seen of its own rose colour, or sometimes livid from venous congestion, and deprived of its ribbings from distension. No aperture can be detected in its lower surface, and the finger can readily enter behind it, the very effort at examination par-

tially reducing it, and the uterus may be felt up above; then will the fact, that catheterism materially reduces the swelling, sufficiently characterise the complaint, and distinguish it from procidentia uteri, with which it is sometimes confounded. If the tumour be formed by the distended rectum displacing the posterior wall, the swelling is less voluminous than in the preceding variety, and more hard and unimpressible. On examination, the contained scybalæ may generally be felt, and the finger may be passed up the vagina before it, where the uterus is found to retain its proper position. This affection is called vaginal rectocele, and is always associated with a torpid state of the lower bowel, and its impaction with fæces, which have become hard from the absorption of their fluid part.

The descent of a circular fold of the vagina is rarely seen, and it is difficult to account for its production. A preparation showing it is in the Museum of Guy's Hospital, where the vagina has several ulcerations on its surface. This is not a painful complaint, but it produces much mechanical inconvenience. It is attended with pelvic weight, and a feeling of dragging at the umbilicus, with a sense of fulness and distension about the rectum. Fatigue is quickly experienced in walking, and frequently dyspeptic symptoms are associated with the faulty state of the lower bowel. A mucous discharge is generally present. The bladder is not easily emptied; the muscular contraction acts at a disadvantage; and the patient instinctively seeks support to the distended base of it, by pressing it herself. Sexual intercourse is more or less impeded, according to the size and variety of the descent, the difficulty being necessarily worst when a cylindrical fold is prolapsed.

The main object to be kept in view in treating this disease, is to restore the lost tone of the muscular structure of the vagina, so as to enable it to bear up against pressure from the contiguous organs; and this is to be primarily accomplished by preventing this pressure. The bladder must continually be kept empty; for which purpose the catheter must be occasionally passed, and the patient directed to avoid the accumulation of urine; or, on the other hand, the rectum must be freely washed out by enemata of castor oil, and the bowels evacuated daily without straining. These injunctions, with

rest will contribute greatly to the patient's comfort and improvement. The vagina ought twice a day to be injected with some astringent lotion, such as alum or oak-bark, and a cold hip-bath is a useful expedient. Should these means fail to impart the requisite tone to the vagina, its parietes must be supported by some mechanical means. An elongated pessary, slightly curved, of the ordinary length and mould of the vagina, formed of caoutchouc, is the best instrument for the purpose. The pessaries which are adapted to support the womb are not fitted for this disease, as they do not embrace a sufficient extent of the yielding tissue of the vagina. A cheap and a very good pessary is formed from a roll of linen covered with oil-silk, which I have found answer the purpose well. It has been proposed to dissect off a strip or triangular portion of the mucous membrane, and to bring the edges together, so as to diminish the size of the canal, and enable it to sustain, without eversion, the pressure to which it is subjected. The same effect would be produced by cauterising portions of the vaginal canal, which would effectually contract its dimensions. I am not in the habit of adopting these measures; but they undoubtedly increase our resources in the treatment of this affection.

APPENDIX.

APPENDIX.

ON THE MORBID CONSEQUENCES OF UNDUE LACTATION.

I ADD this essay and cases by way of an appendix, not on account of any intrinsic worth; but from a belief that the opinions and facts stated in them, may lead to a watchful and scrunizing diagnosis of the important class of cases referred to, which certainly bear a close relation to the object of the present work.

Undue lactation, as a matter of medical inquiry, has not arrested the attention of the profession so much as its importance demands. Its injurious consequences are so frequently overlooked, or, being misunderstood, are attributed to other causes, that it cannot be regarded as unprofitable to comprise, in a few observations, the history and treatment of this affection, in its mild, severe, and complicated forms. The subject is practical and interesting; and, avoiding controversial views, no opinions will be advanced which are not supported by cases constantly occurring.

Little has hitherto been written on undue lactation; Dr. Marshall Hall, so far as I know, being the only author who has bestowed upon it more than a few incidental remarks. The essay of this able physician is a valuble contribution to our knowledge of this disease; although even Dr. Hall has scarcely

done more than allude to the severer functional derangements, and the still more dangerous lesions of the brain and lungs.

Without hesitation I may then observe, that *exhaustion*—generally attended by symptoms of re-action, but occasionally by depression, so extreme as almost to conceal any such effort—constitutes the prominent, the essential feature when lactation has become a disease. Anæmia, with irritability and universal pallor, are as apparent as in chlorosis—of course in different degrees. In some instances there is distressing debility; in others, and less serious cases, there is only trifling anæmia, and proportionately slight pallor. Local congestion, also, as it is the result of an irregular distribution of the blood, may partially modify the anæmia and pallor, by producing in certain organs, a temporary but morbid energy, and, by fulness of the capillaries, a less pallid and unhealthy aspect of the surface. Still, exhaustion is the permanent morbid state associated with undue suckling.

Were the morbid consequences of this disease invariably functional and slight, even then, as occurring frequently, it would deserve attention; but, when it is remembered, that not only severe and complicated functional affections, but occasionally lesions even of an organic and incurable kind, may be traced to its influence when misunderstood or imperfectly treated, it certainly deserves especial attention. It may, I think, be proved,

First, That lactation, to be morbid, need not be protracted: evil consequences may ensue soon after its commencement; occasionally, within a few weeks; more frequently within a period prolonged beyond nine months.

Secondly, That organic lesions may, although very rarely, result from undue suckling.

And, *Thirdly*, That weaning the child is indispensable to the cure, without which all other remedies will be inefficient.

It will be unnecessary to dwell largely on the history and symptoms of undue lactation: a few remarks will suffice to place the subject in a clear light. The period of suckling is happily, in the majority of women, one of health and enjoyment; still, the exceptions to this rule are by no means few: nor can it be expected, in an artificial and increasingly luxuri-

ous state of society, that the number will diminish. We do not find that robust and plethoric women often suffer from over nursing. If occasionally this be the case, the lactation has probably been protracted to fifteen, eighteen, or twenty months, or even to a longer term; and it certainly cannot be a matter of surprise, if then, as the consequence of such imprudence, irritability, exhaustion, and various painful affections, shall occur. Women, originally of susceptible, weakly, and especially of strumous constitutions, whose minds have early and long been cultivated at the expense of their physical strength, who live in confined and unhealthy places, who, before marriage, have suffered from chlorosis, and who have since been weakened by hemorrhagic and leucorrhœal discharges, or indeed by any undue secretion, are most frequently the sufferers from prolonged suckling. Such mothers can scarcely nurse at all; and others, somewhat stronger, having begun lactation favourably—by a poor and restricted diet; by nursing entirely, without the aid of feeding the child artificially; by broken rest; by anxiety; and by other circumstances too numerous to detail—quickly become exhausted, and present the whole series of symptoms constituting the malady of over-lactation.

Occasionally, in a few weeks—commonly in a few months—it will be apparent, from the imperfect nourishment of the infant, and from the debility, anæmia, and pallor of the mother, that the injurious consequences of over-nursing have commenced. Amongst the earlier symptoms of failure, are a heavy, dragging sensation in the back and loins, and directly between the scapulæ, when the child is at the breast; and a feeling of peculiar sinking and emptiness at the pit of the stomach, and over the whole abdomen, for hours afterwards. On strict inquiry it will be discovered, what is often anxiously concealed, that the milk is scanty in quantity, and with difficulty secreted; and that without long intervals, scarcely any fresh supply would be furnished. At this point, much might be done. If weaning were at once adopted, the symptoms would soon disappear; or if only partially adopted (by the child being judiciously fed, and the mother's rest at night secured, instead of being continually broken), lactation might be safely con-

tinued; as the appetite, digestive powers, and strength of the parent would be thereby improved. But the attempt to nurse is often persevered in without these advantages; and the morbid results are soon aggravated. Besides an excitement or depression of mind, there is proneness to hysteria; the pulse is quicker than natural, and easily compressed; the muscular system is weakened; the appetite is nearly destroyed, or at least fastidious and unhealthy; the bowels are either constipated and flatulent, or painfully griped and slightly purged; there is headache or giddiness, with impaired vision; pain between the shoulders, or in the sides, below the cartilages of the false ribs; and, if the suckling be continued, there is swelling of the ancles, œdema of the face, and frequent palpitation. Such are the symptoms commonly attendant, even on a recent case; and it is only requisite that their intensity should be increased, and they will then correctly pourtray a severe and protracted example of undue lactation. Nor is it at all uncommon that one or several of these symptoms shall exist in marked prominence, so as to excite the peculiar apprehension of the patient, and the almost exclusive attention of the practitioner. Impaired appetite is a marked attendant of this malady, and palpitation is also common. A chlorotic aspect, and slight emaciation, often give the first alarm; and dimness of vision, exciting fears of amaurosis, seldom fail to induce anxiety. The contrast of such a case, with one of favourable suckling, where health, cheerfulness, and vigour are enjoyed for many months, must fix the attention of the practitioner on the disease.

Let it be remembered, that the morbid process now sketched is entirely functional; at least, there is no symptom in the series which may not have a functional origin, and be confined within the limits of functional disease.

Before leaving this part of the subject, it will be proper to allude to some of the *complications* of morbid lactation, giving the priority to profuse menstruation, menorrhagia, and leucorrhœa. That *the function of the uterus* should be sooner or later

disturbed by the continuance of a disease originating in an organ intimately connected with its own economy, might, from analogy, be easily inferred; more especially when the malady had deranged the whole system, on the health and activity of which the uterus is so greatly dependent. Thus, after the evils of over-lactation, already described, are fully realized, the uterine mucous lining, as well as its muscular tissue, partake of the general debility; and not only is there profuse menstruation, but, from the relaxation of its capillaries, permits the escape of large quantities of blood: add to these losses, the almost constant drain of leucorrhœal discharge, and it will then be understood that over-lactation, thus complicated, may seriously and alarmingly exhaust a delicate and irritable female. How far such a condition may prepare the way for organic change of the womb, is not easily determined. From observation, I am disposed to think it favours abrasion, ulceration, and vivacious growths.

Functional Amaurosis, accompanied by congestion of the conjunctiva, is a frequent result of excessive lactation, and seldom fails, from its interference with the sight, to arouse the patient's fears lest vision should be entirely and permanently lost. These apprehensions may easily be allayed; as, doubtless in the greater number of cases, prompt weaning will alone remove the affection; still, it may be necessary repeatedly to apply small blisters near the eye, and absolutely to forbid its employment. Improved diet, country and sea air, exercise out of doors, iron and quinine, are important remedial auxiliaries. Nor is it unimportant that quickly-returning pregnancy should, if possible, be avoided. I have known several instances where, during a pregnancy immediately succeeding the exhaustion from over-nursing, the eye has been almost constantly in a state of "blood-shot" or congestion, and the sight excessively imperfect. Months, and even years, sometimes elapse, where able treatment has done its best before distinct and strong vision is re-acquired. Specks, and slight ulcerations of the cornea, are occasionally connected with the exhaustion and irritability of nursing. In all these cases, provided there be no serious organic change, the sufferer may be encouraged to expect the restoration of this most invaluable faculty.

Several examples of *jactitation* have fallen under my notice.

In one poor woman, an out-patient of Guy's Hospital, the seizures always occurred after she had nursed for three or four months; and they were so violent, that she was compelled to lay down her baby when they occurred, lest she should let it fall. In another young and hysterical patient, who had borne children very quickly, there was, during lactation, a continual and slight twitching, almost universal throughout the extremities, but especially of the face. In both, weaning was necessary before the sixth month, more on account of leucorrhœa and general irritability, than for the jactitation.

Epilepsy has been noticed by authors as the product of over-suckling, on the same ground as inanition; losses of blood, and deficiencies in its quantity and quality, are known pathologically to be productive of this malady; and I could adduce several instances where fits, difficult to be distinguished from decisive and unquestionable epilepsy, have occurred.

Insanity, more or less permanent, may originate from over-lactation, commencing by peculiarity of sentiment or temper, and plainly evinced by pertinacious adherence to an opinion once formed, however erroneous; and scarcely at all more strikingly displayed than in a determined opposition to any advice having for its end an entire or even a partial weaning. In this early stage, the further advance or the protracted continuance of the malady might be prevented; but, instead of weaning, larger quantities of porter or wine, with animal food, are most improperly resorted to. Still the desired supply is not obtained. The stomach being weakened, is scarcely able to bear a diminished diet; fever and indigestion, apparent and tempoary, not real strength, are the unavoidable consequence of this increased supply. Together with a continued sparing secretion of milk, the symptoms already described are aggravated. The insanity becomes positive and acute, the pulse quick and sharp, the skin parched, and the whole system deranged. The condition of the patient is no longer doubtful; her actions are often violent; and, without personal restraint, serious, perhaps fatal injury might be inflicted on herself and those around her. I agree, however, with Dr. Locock, that the aberration of undue suckling is rarely of this serious kind, excepting where generous diet and wine are injudiciously

administered; more commonly it shows itself in weakness and absurd ideas, in whim and caprice. In this stage, if weaning and careful treatment be adopted, the symptoms often subside easily and quickly; while in other cases, where probably a disposition to insanity exists hereditarily, the disease is of longer duration, requiring seclusion and confinement for its cure. If it be asked whether permanent insanity is ever the result of the aberration of undue suckling, I confess that I am unable satisfactorily to answer the question. In my own practice, such has never been its consequence; nor, so far as I know, have I discovered an example of the kind. The exhaustion of over-nursing induced the re-action and irritability on which the malady depends; and as this is gradually removed, by the formation of a larger quantity of better blood, the insanity passes away, and the individual slowly recovers her lost reason. It may perhaps be said, by those who regard this malady less seriously, that the insanity would have occurred independently of its intervention. The appended cases negative such an opinion. Additional confirmation is also furnished by the result of protracted lactation after another confinement. If, after such an event, more especially if the interval between the deliveries has been short, and the suckling be again protracted, a similar aberration will probably ensue, indicating the propriety of greatly curtailing the time of lactation, if not of entirely giving it up.

It is not difficult to show many points of resemblance between this form of insanity and puerperal mania. The latter most commonly occurs in women of weakly, hysterical, and irritable habits; and, in the same class, over-lactation is most frequently witnessed. In the greater number of examples of puerperal insanity, a modified antiphlogistic treatment only, comprising small local bleedings, cordial aperients, and particularly sedatives, with mild nourishment and tonics, is most successful; and the same may be said of the insanity from over-lactation. Puerperal aberration is rarely permanent, if insanity be not hereditary, and if improper treatment has been avoided. The same observations are true of the insanity of over-lactation. The former is disposed to recur in after-confinements; and the latter will shew itself afresh, after successive and injudiciously-

protracted nursings. There is, however, a marked difference in the frequency of the two diseases. The shock of parturition, the suddenness of the transition from pregnancy to the puerperal state, and the establishment of lactation itself, all of which involve considerable changes in the circulation and in the nervous system, sufficiently account for the prevalence of the one malady over the other.

The *pathology* of these functional results of undue suckling is by no means intricate or doubtful. An impaired and attenuated condition of the blood, and a consequently depressed state of the nervous system, especially of the organic system of nerves, is the clue by which all the symptoms may be unravelled.

I pass on now to notice what my experience leads me to believe to be a fact; viz., that very prolonged undue suckling may, *although rarely, induce organic change in the brain, lungs, and uterus.*

It has already been remarked, that *headache* is a frequent concomitant of the malady: nor can the practitioner be too strongly impressed with the hazard arising from its constancy. So long as it is general, not very severe and transient—so long as it does not recur periodically, with marked premonitory symptoms—it may be viewed as comparatively free from risk. But if it be dreaded, on account of the permanent uneasiness which it has already produced, or from its intensity and acuteness; if it seize on one part of the head, and remain fixed there; if its paroxysm be preceded by rigors, and if the pain never entirely subsides; more especially, if there be partial paralysis, mental peculiarity, or forgetfulness approaching to imbecility, or any other anomalous symptom indicative of deranged nervous action; for instance, an unusual affection of the eye, such as double or impaired vision, or of the auditory nerve, injuring the hearing, or rendering it excessively and painfully acute; or if there be impeded deglutition; then danger exists, and a softened, or otherwise structurally altered condition of the brain may be feared. If weaning has not been adopted, it ought now to be urgently enjoined.

Again, *the lungs may become organically affected;* or, to express what is probably more strictly accordant with the fact, a tendency to phthisis, hitherto latent, may be developed; tuber-

cles, till this period quiet and inactive, may soften, and all the symptom of consumption may supervene. A slight and occasional cough need not excite apprehension; but if it be short, hacking, and habitual; if the breathing be quick, and disturbed on slight occasions; if there be fixed pain in the side, or over any part of the thoracic region; and if, added to these symptoms, there be progressive emaciation, even doubtful sputa, morning perspiration, and a constantly quick pulse, it may be confidently assumed, that if serious mischief has not already occurred, it is at hand. The stethoscope will scarcely fail to reveal some important structural lesion.

The *uterus* may also undero *organic change*, as the result of undue suckling.

The *pathology* of these structural lesions need not occupy us long. In reference to the lung, there can exist no doubt that undue lactation is favourable to the development of phthisis; and that if the supply of milk in women of this class did not generally very soon cease, many more would fall victims to protracted nursing.

As to the brain and uterus, we are so much accustomed to see their organic changes following a state of hypernæmia and repeated irritation and inflammation, that we are indisposed to recognise such consequences from a state where exhaustion is the prominent feature; and yet this is physiologically correct. It is universally admitted, that the blood nourishes the solid structures of the body; and without its healthful influence their organization cannot be supported. If then, by an undue and protracted lacteal secretion, the quality as well as the quantity of the blood is impaired, it seems an inevitable result, that a morbid modification of the firm and solid organs of the body must ensue. Just in proportion as the fibrin and albumen of the blood are drawn off, must the structures alluded to suffer in their organization. And, as induration results from inflammation, where there is generally, at least very often, an undue proportion of fibrin, so may softening of the brain and uterus, without malignancy, follow in the course of undue suckling, independently of any inflammatory action. Andral supports this opinion. He says:—"Where shall we find the symptoms of encephalitis, carditis, hepatitis, nephritis, metritis, &c., in vari-

ous cases of softening of the brain (especially of its white central portion), and of the heart, liver, kidneys, uterus, &c.; every one of which may pass into such a state of softening, that its tissue may be torn or broken down into a pultaceous mass, without having given rise to a single symptom which could lead to a suspicion of the existence of inflammation."

Treatment.—The indications in the merely functional affections are not difficult to meet. Where the symptoms of exhaustion are slight, a better diet, a careful regulation of the bowels, a tonic treatment, and, above all, diminished suckling, will often avail. Nor is it necessary to urge very strongly, because their propriety is evident, that the child should be fed two or three times within the twenty-four hours, and that unbroken sleep during the night should be secured to the mother. But let it be remembered, that this will not always prove successful. A continuence of the debility, or the aggravated prevalence of one or more of the symptoms already enumerated, will plainly indicate the necessity of immediate and entire weaning. If the child be purged, or become gradually emaciated, it will corroborate the importance of this step.

Where organic disease is threatened, especial attention must be paid to the organ in which it seems likely to occur. Cupping, or leeches, may be required; and counter irritation, by blisters, setons, or issues, may be expedient: beyond these general directions, the practitioner will proceed according to the exigencies of the case, never omitting the weaning of the child. The convalescence of such patients is generally protracted and difficult, years sometimes elapsing prior to recovery. Nor can it be too strongly recommended, that suckling should be abandoned, if a fresh pregnancy succeed very quickly. The symptoms are often rendered worse by gestation, and invariably by a renewed lactation. Iron, chalybeate waters, country and sea air, travelling, and exercise, are most important auxiliaries. Every case will demand a curative or preventive treatment; and it will be fortunate for the patient if the approach of organic symptoms be descried sufficiently early to obviate their full establishment.

CASES.

It were easy to increase the length of this Appendix, by appending to it cases of a common functional kind: but these are so often seen, that they must be familiar to every practitioner.

Case 1.

INSANITY RESULTING FROM UNDUE SUCKLING.

REPORTED BY MR. LEVER.

Mrs. P., aged 28, of fair complexion, blue eyes and light hair, at the age of seventeen suffered from chlorosis; but, under a course of tonics, and the advantages of sea-air, she recovered. In twelve months she again relapsed, and again recovered under the same treatment. At the age of nineteen she married; and before her twentieth year she had a living male child. She nursed this child for twelve months, and was again confined soon after she had reached her twenty-first year. Since this period she has borne four living children, and has miscarried twice: she has nursed every child. Her last infant was born eight months before I saw her. My attendance was requested, on account of her having become very weak, very desponding, and sharp in her manner. On visiting her, I was struck with her pale, anxious countenance: the pupils were dilated; the pulse was small, quick, and irritable. She complained of great thirst, of a pain at the top and back of her head, and there was also excessive leucorrhœa. I obtained answers to my questions with some difficulty; although in general she was exceedingly communicative. Tonics, change of air, &c., were ordered, and the child was partially weaned and fed. The symptoms, however, became worse, and her conduct was exceedingly violent. She attempted more than once to destroy both her husband and child. The latter was immediately removed, her head was shaved, nutritious but unstimulating diet was ordered, together with tonics and sedatives. These measures were diligently prosecuted; but at length it was thought right to remove her to an asylum. Here she continued four months, and returned home entirely recovered. Ten months subsequently she was again confined of a living child; and within five months the insanity returned.

After a fruitless employment of remedies, she was again placed under restraint; and having remained there five months, she was sent home quite well. Twelve months from this period she gave birth to another living infant; and, at the suggestion of her medical attendant, she did not attempt to nurse it, and her intellect has continued unimpaired.

Remarks.—This is an admirable illustration of the opinions advanced: clearly demonstrating the dependence of the insanity on the suckling. It also proves that weaning is the only efficient preventive remedy.

Case 2.

INSANITY RESULTING FROM UNDUE SUCKLING.

Mrs. J., aged 35 (July 1837), is the mother of five children, and has been married seven years. She is fair, and has light eyes and hair. Hitherto she has nursed her children very long; and during the last lactation, she was often flighty, passionate, and inconsistent.

On my visit, I was struck with her excited and irritable manner. Her face was flushed; her eyes were directed very quickly to a variety of objects; and she attempted more than once to get out of the room. On inquiry, I found she had nursed already fifteen months, and was determined still to persevere; nor had she allowed the child to be fed even once in the day. The pulse was quick and feeble; the tongue coated with a brownish fur; the appetite destroyed; and the pain at the pit of the stomach was very severe. I ordered a mild aperient, great quietude, with some saline effervescent medicine; and I insisted that the child should be weaned; as this measure had, in her previous aberration, entirely cured her.

I saw her ten days afterwards, and, excepting that she was somewhat reserved, she was clearly better.

In three months she was entirely restored.

Case 3.

PHTHISIS RESULTING FROM UNDUE SUCKLING.

Mrs. W., aged 25, living in Spitalfields, is the mother of five children, and has, contrary to my injunctions, nursed the last two for seventeen months each. In July 1828, when I visited her, she was emaciated;

had a short, hacking cough; complained of pain at the epigastrium and in the chest, particularly on the right side of the thorax; the pulse was 120, quick, and easily compressed; there were morning perspirations, and the sputa were purulent. Fifteen months had elapsed since her confinement; and during the last six, there has been constant alvine and stomachic derangement. The diet and porter have been increased largely during the last six months, in the vain hope that a larger supply of milk would be furnished. Frequent purgatives have been employed; and the indigestion and flatulence, as well as the evening fever, have been correspondingly aggravated. The stethescope detectes a large vomica in the apex of the right lung. Immediate weaning was enjoined; and every measure adopted calculated to arrest the progress of the organic lesion. She died, however, in a few weeks.

Case 4.

SOFTENING AND ABSCESS OF THE BRAIN FROM UNDUE SUCKLING.

Mrs. C., aged 30, had been confined in April 1830, of her first child. She was attended by Mr. E. Smith of Biliter Square; and although the labour was natural, it was protracted, and she was a good deal exhausted; there was some hemorrhage subsequent to the expulsion of the placenta; and the ergot was given for thirty-six hours afterwards, in doses of fifteen drops of the tincture every four or six hours. Her recovery was slow, but satisfactory; she nursed the child well; and three months prior to her death, having then suckled her infant nearly twelve months, she complained of great weakness, but especially of headache. She was advised very strongly to wean the child, but peremptorily refused to do so. An improved diet, and vegetable tonics, were prescribed; and care was observed in preserving a healthy condition of the alvine evacuations. It ought to be observed, that she had menstruated for the two preceding months. At intervals of a week or ten days, I saw Mrs. C., and never failed most pertinaciously to urge the weaning, without success, till about a month before her death. The headache had become so severe as to produce temporary loss of consciousness; and the pain occurring periodically in paroxysms, it assumed the character of an epileptic seizure. In a day or two afterwards, the intense suffering was confined especially to the right side of the head; and as it was often preceded by shivering, and attended with violent jactitation, it was presumed it

might be an intermittent. The seizures, however, became more decidedly epileptic and convulsive; and, resisting every plan of treatment, in fifteen months from the commencement of lactation, she died. For three or four days before her decease, she was totally insensible, breathing stertorously, and devoid of all power of the bladder or rectum.

Sectio Cadaveris.—On removing the calvaria, the dura mater was found studded with little bloody spots, and its vessels were gorged with blood. In the middle lobe there was a cavity, about the size of a walnut, filled with pus; immediately anterior to this, there were three distinct tubercular bodies, of the size of large nuts: one hard, and the other softened down. In the same hemisphere (the right) there was general softening; the other parts of the brain were tolerably healthy. The uterus was flaccid and large, and its lining membrane very soft; and towards the lower part of the cavity it was slightly abraded. The body generally was emaciated. Prior to the nursing, Mrs. C. was unusually lively and intelligent.

Case 5.

REPORTED BY MR. JOHN MILLS, CLINICAL CLERK.

Mary J ——, æt. 42, admitted under Dr. Ashwell, Dec. 2nd, 1842; an unhealthy, emaciated looking female; was early married, and has given birth to nine children, besides miscarriages. She has never suckled any child less than two years, (the last was not weaned until the expiration of two years and eight months), and has all this time been exposed to the miseries of poverty, frequently wanting even the necessaries of life. No wonder, then, that the most extensive constitutional debility should be induced, and that a disorder of comparatively trivial moment in a healthy individual, should here have excited serious and alarming indications.

Three weeks ago Mrs. J. was confined; her labour was good, and she felt as well as usual for some days afterwards, though from causes above stated she was in a very unfit state to undergo the excitement and shock of parturition. She had observed a weakness in the left leg and foot for some weeks, which rendered her rather lame, and in both limbs the veins have always been remarkably varicose. One week after delivery, she was suddenly seized with violent pain in the left foot; swelling immediately commenced, and "*in fifteen minutes the leg and foot were the*

size of a child's body." This is the statement she gives and persists in, although the gentleman who attended her denies that swelling of the limb took place at any precise period. To relieve the pain and counteract heat, leeches and poultices were applied; an extensive and unhealthy ulcer followed in a few days; and now, on her admission, the whole of the outer side of the left foot and ancle is one mass of sloughing ulceration, and very painful.

The constitution is supported, though with difficulty, by wine and other stimulants; there is considerable hectic fever; she is irritable, and dozes a great part of the day. Pulse weak and trembling, bowels open, tongue white and flabby. Ordered, Ammon. Sesquicarb. ℈ii; Tinct. Lupuli, ʒss; infus. Serpent. ʒiiiss; Cochl. iii. tu die; Catapl. Cerevisiæ.

Dec. 4th.—Slept tolerably last night; feels easier this morning; wound more healthy. Wine, ʒvi; Porter, one pint.

5th.—Poultice appears to agree well with the ulcer, and she does not feel much pain, except when it is examined; feels better in health.

6th.—Is certainly improved; appetite tolerable.

7th.—Slept well last night; profuse perspiration.

8th.—Wound painful; otherwise improving. Lot. Acid Nit.

9th.—No particular alteration; not any considerable suffering from the wound.

13th.—Improving; complains much of the nitric acid lotion, which is, however, of great benefit. Quinæ Disulph. gr. iii. t. d.; P. Lotis. Acid Nit. pro Catapl.

21st.—Health very much improved; wound in a favourable state.

Feb. 5th.—Wound looking healthy and healing; she cannot bear it stopped up, so has it dressed simply with dry lint.

From the *21st* of December until March, the prognosis was on the whole favourable, although slow. On the *5th* of March 1843, the wound was dressed with black wash poultices by night, and black wash or lint by day, argenti nitras having been previously used. She had entirely recovered her health, but could not walk without support.

March 6th.—Sore healing slowly; very much depressed in the centre; granulations small. To use simple water dressing and oiled silk.

15th.—Wound looking a little better; not quite so deep. Argent. Nit. applied in a crucial stripe.

17th.—Sore better; considerably lessened in size.

22nd.—Decidedly improved; filling up rapidly.

I have inserted this case, because it shows that extensive organic mischief may arise from undue suckling; a fact not well known, at least till lately.

The following interesting and successful exemplification of the propriety of inducing labour prematurely and artificially, where disease exists in the mother, was transmitted too late to allow of its insertion in the chapter devoted to this most important subject.

PREGNANCY COMPLICATED WITH ABDOMINAL TUMOURS.

REPORTED BY THE HUSBAND OF THE PATIENT, HIMSELF A SURGEON PRACTISING MIDWIFERY.—MARCH, 1842.

Mrs. ——, ætat. 36, of a weak and delicate constitution, about five years ago first perceived an enlargement of the right ovary, accompanied by the usual symptoms of local pain, and weight and irritability of the bladder. It has since been slowly increasing, and is now about the size of the fœtal head, and apparently nearly solid in structure. About two years afterwards, the functions of the uterus, which had previously continued regular, becoming much impaired and attended with considerable pain, another tumour, of the size of a walnut, was discovered in the posterior wall of the uterus, contiguous to the recto-vaginal septum, and this has since generally remained in a quiescent state, and given little uneasiness. Eighteen months ago, the symptoms of pregnancy made their appearance, and between the fifth and sixth month of gestation, when the pain from the pressure on the tumours was becoming severe, spontaneous abortion took place.

At the beginning of last autumn, Mrs. —— again became pregnant, and arrived at the seventh month, and for the last three or four weeks of that time had been suffering constant and considerable pain in the tumours, with more or less tenderness on pressure; and the danger of inflammation shortly supervening appeared imminent, the abdomen being tense, with great aggravation of pain when walking. A gentle carriage drive of a mile or two also much increased the severity of the symptoms. It was agreed, under these circumstances, to solicit the advice of Dr. Ashwell, who, after a careful investigation decided on the necessity of the induction of premature labour.

On the 8*th* instant, he accordingly punctured the membranes with a stiletted catheter, which operation was shortly followed by a profuse discharge of liquor amnii. In the course of the first twelve hours, it was estimated that not less than six or seven pints of this fluid were evacuated. This inordinate secretion had no doubt been occasioned by the constant pressure and irritation produced by the tumours on the uterus. On the 10*th*, labour pains set in, and were soon followed by the birth of a still-born child. For several days succeeding delivery, there was considerable tenderness and irritation of the tumours, which yielded to the recumbent posture, anodynes, and aperients. She is now, three weeks from the accouchement, perfectly well.

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