

**An enquiry into the pathological importance of ulceration of the os uteri :  
being the Croonian lectures for the year 1854 / by Charles West.**

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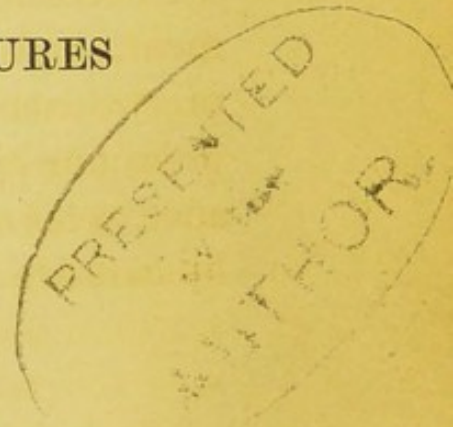
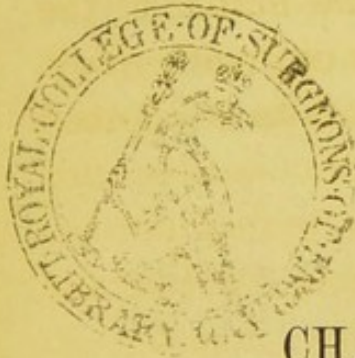


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AN  
**ENQUIRY**  
 INTO THE  
 PATHOLOGICAL IMPORTANCE  
 OF  
**ULCERATION OF THE OS UTERI.**

BEING  
**THE CROONIAN LECTURES**

FOR THE YEAR 1854.



BY

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THE  
ANATOMICAL  
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AND  
THROAT  
OF  
THE  
HUMAN  
BODY  
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SKINNER STREET.

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AN ENQUIRY  
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PATHOLOGICAL IMPORTANCE  
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LECTURE I.

Introduction — Imperfection of our knowledge concerning the Diseases of Women ; reasons for it. State of opinion at time of first employment of speculum ; facts which use of that instrument brought to light ; different estimates of its value.

Important principles involved in the disputes on this subject—Proposed enquiry into them in these Lectures.

Preliminary remarks on some peculiarities of the uterus in health and in disease—Supposed cause of most uterine ailments—Alleged importance of ulceration of the *os uteri*—Description of those ulcerations—How they are supposed to react on the uterus ; suggestions for their cure.

Doubt as to correctness of these opinions—Plan of proposed enquiry into them—I. Conclusions from anatomy and physiology unfavorable to them. II. Results of examinations after death hitherto unsatisfactory, and why—Observations of lecturer ; inferences from them opposed to idea of great importance of ulceration of *os uteri*.

MR. PRESIDENT,

SIR,— I enter on the honorable task which you have assigned to me, with much apprehension and misgiving. It is not merely that I appear in the teacher's garb before those from whom I have learned much, and might still be well content to learn all my life long,—nor that I address an audience whose criticism I dread, and whose unfavorable censure I would deprecate,—which fills me with



anxiety ; but it is, that I am here to-day in some sort as the representative of those who follow a department of medical practice which, till but recently, this College scarcely countenanced—to whom it has but lately extended honorable distinctions—on whom it has now for the first time imposed a still more honorable duty. While I rejoice, Sir, in the full recognition by this College, of the fact that all departments of our profession, by which suffering can be assuaged, disease arrested, or life prolonged, are alike honorable,—that none are alien from the paths of scientific enquiry, nor unfriendly to that culture of the mind which confers distinction more precious far than any worldly honors,—I dread lest anything that comes from me should seem unworthy of this body, undeserving of that liberality of sentiment and enlargement of view to which I owe it that I have now the opportunity of addressing you.

Never, Sir, have I wished so much as I do now for that insight into Nature's ways, which might enable me to justify your appointment of me as Croonian Lecturer for this year, by bringing before this assembly some new truth, or by throwing fresh light on some great principle but dimly seen, or partially understood before ; or at least for those rare gifts of speech which can impart interest and freshness even to subjects trite and commonplace. But, while to such endowments I have no pretensions, my need of your indulgence is all the greater, since I have had most to do with small complaints and every-day diseases ; and if from them I select a subject for these Lectures, though obscure, it still must seem familiar, and, with all the disadvantages of novelty, yet have none of its charms.

Frequent as is their occurrence, it must nevertheless be confessed that the Diseases of Women are those concerning which our knowledge is most defective. And yet there seems, at first sight, to be but little reason for these



deficiencies ; so little, indeed, that their existence has been made a constant ground of reproach against those who, having to do with ailments so simple as they are assumed to be, yet have left so much concerning them uncertain or unexplored. I believe, however, that many of the doubts and uncertainties which beset these subjects depend on the difficulties in the way of arriving at truth concerning them, far more than on any want either of diligence or of honest purpose, on the part of those whose special duty it was to engage in their investigation.

If, now, for a few minutes I occupy your time in the endeavor to point out whence those difficulties have arisen which did, and do still, retard the advancement of knowledge concerning uterine disease, you must bear with me, since my object is not only to account for the apparent omissions of obstetric practitioners in general, but also, by showing the uncertainty of much that we seem to know, to excuse myself for the choice which I have made of a subject for these Lectures.

In wonder, says the ancient writer, all philosophy begins, in wonder it ends ;—but wide, indeed, is the distance which separates the marvelling of the ignorant from the admiration of the learned. Processes such as those by which the perpetuation of the species is accomplished, could not but excite in every stage, the wonder of all people, in all times. The principle of life, symbolized under various forms, was in the earliest ages the object of reverence, or of actual worship, while the happy issue of the mysterious process of parturition was sought to be secured by rites and ceremonies, and charms, propitiating the various deities who superintended it. If these failed of their looked-for result, or if some untoward event happened, passing the skill of the attendant women, the aid of the surgeon was sent for, though only to perform some barbarous operation.



In the diseases of their own sex, it was natural that women should be first consulted ; and the instances were comparatively few in which application was made for the assistance of any physician : hence it resulted, from sheer want of opportunity, that the anatomical and physiological discoveries which were made, though slowly and imperfectly, remained long unapplied ; that for ages all knowledge of the pathology of the female sex continued fragmentary, and all treatment of their diseases empirical.

Nor was this state of things as much amended as might have been expected by the general advancement of knowledge in comparatively modern times. Anatomists devoted themselves to the task of exploring the mysteries of generation, but passed by without enquiry the scarcely less mysterious process of parturition, and the changes which succeed to it ; while, by their unquestioning adoption of many errors which time had rendered venerable, they lent to them a fresh sanction, and gave them, as it were, the stamp of truth. In subjects thought to be beneath the dignity of science, advances must needs be slow ; and the whole history of the obstetric art is a most appropriate commentary on this fact. By slow degrees, indeed, and by steps which we cannot now stop to trace, improvement came, though amended practice in this, as in so many other instances, preceded correct theory ; and even now we not infrequently do what experience has taught us to be right, although we are unable to assign a thoroughly satisfactory reason for our proceeding.

But if our knowledge be still incomplete concerning a process like that of parturition, which is transacted in a few hours, and is constantly offering itself to our observation, there is little cause for surprise that it should be still more imperfect with reference to the physiology and pathology of the generative system in the unimpregnated state. So



recently, indeed, as thirty years ago, neither was the structure nor were the functions of the sexual organs at all correctly understood. The uterus, it is true, was known to be muscular; but neither the process by which its muscularity becomes so marked during pregnancy, while it ceases to be clearly apparent soon after delivery, nor the intimate nature of its structure in the virgin state, had been the subject of inquiry. The interior of its neck was seen to be invested by a membrane arranged in folds, between which minute glands or follicles were present in great abundance; but the existence of a distinct lining membrane in its cavity was rather inferred from the results of observation in some forms of disease, than demonstrated by anatomical investigation in a state of health. Though the structure of the ovaries was in the main understood, yet the ovarian ovule had not been discovered, and the function of the ovaries was supposed to be called into exercise only during the stimulus of sexual congress. Hence it resulted that the import of menstruation continued to be a riddle unread; all that was certainly known about it being that it was a function which bore an important, though undefined relation, to the generative process.

To have written, under such disadvantages, a work on the Diseases of Women,—so full of sound observation—so abounding in practical instruction of the highest kind,—that, like Pemberton's Treatise on the Abdominal Viscera, it has not only not been rendered obsolete by the lapse of time, but that it still remains, after forty years, our safest guide in the management of these diseases, is certainly not the least among the many honors which its author has won, and wears so well. But, in trying to judge fairly of the labours of our more immediate predecessors, or to estimate what remains for us to do, we must not forget that where the knowledge of healthy structure



and of natural function is defective, the knowledge of diseased structure and of perverted function must be imperfect too.

Very few facts will suffice to illustrate the defective pathology of but a few years ago. It was assumed that an organ of such dense structure as the unimpregnated uterus must be little liable to inflammation, and its kindred processes; though in some rare cases the neck of the womb was allowed to be their seat. Its lining membrane, supposed to be so rudimentary in the unimpregnated state, was not thought worth consideration among the possible seats of disease; and leucorrhœal discharges, supposed to be always furnished by the vagina, were usually regarded as the consequence and the index of constitutional debility. The different morbid growths were not properly discriminated: scirrhus, a disease of extreme rarity, was assumed to be of very frequent occurrence; and to it were attributed almost all chronic affections of the neck of the womb, attended with induration of its substance and increase of its size.

In this state of knowledge, when observation must have been perpetually clashing with preconceived opinions, M. Récamier first thought of employing an instrument,—the Speculum,—for the more convenient application of local remedies to cancerous ulcerations of the womb. Its use, however, was not long confined to this object; for practitioners found that by means of it they were enabled to discover various morbid conditions of the uterus, with which they were hitherto unacquainted, and to which it was but natural to attach importance, as the probable cause of many previously inexplicable symptoms. In fact, by its means one important question was speedily and decisively set at rest,—for leucorrhœal discharges were ascertained to be derived in great measure not from the vagina, but from the



uterus ; to be associated with various diseased appearances of its orifice, and to be, sometimes at least, removed by different remedies directed to that part and to the neck of the womb. So long as the lining membrane of the uterine cavity was supposed to exist in the unimpregnated state merely in a rudimentary condition, it was most natural that an exaggerated importance should be attached to the various morbid appearances of the os and cervix uteri ; and so long as the ovaries were believed to be called into activity only at the time of sexual congress, it was to be expected that their share in the production of diseased phenomena should be rated very low. Ignorance, with reference to these two points, was shared alike by the advocates of the employment of the speculum, and by the opponents of its use ; and under these circumstances their controversies were not likely to lead to any satisfactory result.

We need not, indeed, wonder that the disputants on both sides, thus imperfectly furnished for the debate, should have narrowed the question to one of details touching the expediency of employing an instrument which some pronounced to be all-important, while others decried it as useless, mischievous, and even immoral. It must be obvious, however, to us who enjoy the advantage of the additions to physiological knowledge which the past quarter of a century has brought with it, that our decision on this subject involves much more than the mere acceptance or rejection of a certain therapeutical proceeding, but that it really concerns the opinions which we entertain with reference to the main principles of uterine pathology. Regarded in this light, what might at first have seemed a trivial enquiry, at once assumes a greater importance, and becomes, I think, not unworthy the attention even of such an audience as the present.

It is not without reluctance that once again I venture to



delay you with some further preliminary considerations touching the structure and the functions of the womb ; though my doing so might perhaps be justified on the plea of the desirableness that we should, before entering on an examination of conflicting opinions, ascertain what facts are accepted as true on either side. But there is another reason for this course, in the circumstance that the womb presents peculiarities of situation, structure, and function, such as render it probable that the diseases of the organ may likewise exhibit distinctive features, and possible that their cure may call for modes of treatment which otherwise would not be expedient, nor even justifiable.

Now, it would not be easy to imagine a state of things more favourable to the occurrence of ailments dependent on venous congestion, or in which those ailments would be more difficult to remove, or more apt to return, than is observed in the case of the uterus during the whole period of activity of the generative powers. The return of blood from the organ, which is rendered difficult by its situation at the lowest part of the trunk, is still farther impeded by the absence of valves from its veins ; while every month, for several days together, this organ and its appendages are the parts towards which blood flows in superabundant streams. During this period, the natural secretion from the uterus and Fallopian tubes is much increased ; the epithelium covering their surface is detached, and reproduced again and again ; hæmorrhage breaks forth along the whole tract,—and it is not until this has continued for some days, that the congestion ceases and the parts subside once more into their former state of quiescence,—the uterus remaining, however, for a short time heavier, and its tissue looser, and more abundantly supplied with blood, than it was before. I need not stop to tell how a slight cause may protract this hæmorrhage, or how some accident may check it ; nor need



I labour hard to prove that in either case there must be a general disturbance of the function of the organ—a general impairment of the health of the individual : exhausted in the one instance by loss of blood, broken down in the other by the suffering, both general and local, which the return of the periodical excitement of the generative organs, unrelieved by their customary depletion, cannot fail to bring with it. In what organ of the body does one find a parallel to this series of occurrences ?

Again ; the uterus is held in its position by supports which allow to it a large measure of mobility, and whose power is generally diminished by the very causes that increase the weight of the body they have to bear. Hence it is very apt to become displaced, and to be displaced in a downward direction, or prolapsed. And such prolapsus not only brings with it a variety of painful sensations, due to the womb dragging upon its ligaments, but the moment the organ ceases to be suspended in the pelvic cavity, it becomes exposed to shocks of various kinds, to irritation from sources from which it was previously safe. The neck of the womb, even when that descent is not very considerable, becomes a sort of stem on which the organ rests upon the floor of the vagina. In this position it is liable to disturbing causes almost numberless,—sitting, riding, exertion of any kind, the very passage of the fæces along the rectum, produce pain, keep up congestion, and favour that slow increase of size which seldom fails to occur in parts the seat of long-continued irritation, and which offers one great impediment to the cure of many affections of the womb.

Another peculiar and fertile source of disorders of the womb is furnished by the changes that attend upon conception and parturition, and their frequent interruption. With these changes, even in the healthy state, our acquaintance



is at present too imperfect for us to appreciate with accuracy the nature of the mischief which may result from their disturbance. We know, indeed, many things concerning these processes of which our predecessors were ignorant; but our increased knowledge is as yet sufficient to show us the difficulties of the problem, not sufficient to furnish its solution. The growth of the pregnant womb is not, as it was once supposed to be, a mere increase in size and unfolding of texture of the muscular fibres already present there, but is as much the result of a new formation as is that of the foetus contained within it; its tissues going through the same development from a rudimentary condition to a high organization. Cells elongate into caudate bodies; these unite into fibrillæ, while the mucous membrane increases in vascularity, grows in thickness, and becomes developed into decidua. The small, dense, lowly organized uterus becomes the large, vascular, powerful muscle which we see it to be at the end of pregnancy; when having served as the residence of the foetus, and as the medium through which it derived its support, the organ accomplishes in the act of parturition the last of that wonderful series of processes to which it owed in old time its appellation *Miraculum Naturæ*. But even before this period has arrived, indications of decay have manifested themselves in the changes that have taken place in the decidua; while no sooner is the child born, than all the tissues of the womb evince the commencement of similar alterations, which go on with a rapidity such as is observed in no other body, and under no other circumstances. The muscular fibres undergo fatty degeneration, and to a great extent disappear; nerve-matter ceases to be apparent within the sheaths which had contained it, while even the fibres of elastic tissue interwoven with the muscular substance of the womb, lose their distinctness or become entirely ab-



sorbed. The old uterus has done its work and is removed ; but in the midst of its decaying fibres the elements of a new organ are developed, and the microscopist tells us of a new generation of spindle-shaped cells, which he can discover in its tissue, just like those which existed in the organ before pregnancy began, and which remain stationary at the same low stage of formation, till in their turn excited by impregnation to go through higher phases of development.

In these changes the body of the uterus, and the lining of its cavity, bear a far greater part than either the substance of its cervix or the mucous membrane which lines that canal. The mucous membrane of the body only is developed to the decidua, and it alone is thrown off after delivery : the lining membrane of the neck undergoes much slighter alterations, and is not deciduous. It is in the body of the uterus that its muscularity is most evident ; firm fibro-cellular tissue predominates in the cervix, with which are interwoven here and there bundles of narrow, smooth, muscular fibres ; and the stimulus of pregnancy, which works such changes in the former situation, brings to pass far slighter alterations in the latter.

At present we are too imperfectly acquainted with the nature of those changes, which I have thus briefly sketched, to be able to say exactly what influence is produced by accidents which interrupt the course of pregnancy and originate the processes of degradation of the uterine tissue prematurely ; or what results follow from disease succeeding to delivery at the full period. We may confidently hope in time to know more ; at present we have learnt from everyday experience that such occurrences interrupt the ready return of the womb to the size and condition which are natural to it in the unimpregnated state ; that the organ is apt to remain permanently increased in size ; that this



enlargement is often especially marked in the more lowly organized cervix ; that under such circumstances the menstrual function is usually in some respect or other ill-performed, while secretions are likely to be furnished from the organ differing in quantity or quality from those which proceed from it in a state of health ; that the performance of all the sexual functions is very apt to be attended by pain, that impregnation is less likely to occur, and that if pregnancy should take place, there is very great probability of its coming to a premature termination.

This set of symptoms, however, or at least many of them, are met with independent of pregnancy and its consequences, supervening sometimes, indeed, under the influence of causes which evidently, and in a marked manner, interfere with the generative functions, but coming on at other times slowly, and, as far as we can discover, without cause. How are they to be explained ? Do they proceed from an invariable pathological occurrence, which is present in every case, how wide soever may be in other respects the points of difference between them—or are they the indications of disordered function, which may depend on causes as various as those which produce vomiting or occasion dyspnœa ? The enquiry is manifestly an important one ; its elucidation will be the object of these Lectures. It has been said that there is an invariable, or almost invariable, cause of these symptoms,—that, be the remote occasion of them what it may, inflammation and ulceration of the neck of the womb is their immediate cause,—that the key to the right understanding of uterine diseases is to be found in the correct appreciation of the importance of this condition ; and the cardinal point in their treatment consists in the adoption of means for its cure.

The ulcerations to which such important results are attributed are for the most part mere superficial abrasions of



the epithelium investing the lips of the os uteri, whose abraded surface is of a vivid red colour, and finely granular. In other cases, in which the absence of epithelium is less complete, the surface seems beset by a large number of minute, superficial, aphthous ulcerations, between which the tissue appears healthy, or slightly redder than natural. The ulcerations of the os uteri seldom or never present an excavated appearance with raised edges, as ulcers of other parts often do; but either their surface is smooth, or it projects a little beyond the level of the adjacent tissue. They are usually, but not constantly, of greater extent on the posterior than on the anterior lip, are sometimes confined to the former, but very rarely indeed limited to the latter. They appear to commence at the inner margin of the os uteri, whence they extend outwards, and sometimes, though by no means invariably, the short extent of the canal of the cervix uteri which can be brought into view by the speculum, appears denuded of its epithelium. The adjacent parts of the os uteri vary considerably in their appearance; sometimes their natural pale rose tint is preserved up to the edge of the abrasion, which is marked by a distinct well-defined line, while at other times the whole surface is of a much more vivid red than natural, and the line of demarcation between the abraded and the healthy surface is irregular and indistinct, the one encroaching on the other. The orifice of the uterus is generally more open than in a state of health; and the disappearance of the abrasion, which always takes place from the periphery towards the centre, is accompanied by the gradual closure of the previously patent orifice. The state of the tissue of the os and cervix varies; sometimes there is a very marked softness of the parts, the condition resembling that of the uterus soon after abortion or delivery, while at other times it is much harder than natural; but it certainly is not at all a



common occurrence for extensive abrasion of the os uteri to co-exist with a condition of the organ such as would seem healthy to the touch. The secretion from the surface varies considerably in different cases, and the chief part of the leucorrhœal discharge from which patients suffer is derived from within the canal of the cervix, or from the cavity of the womb,—not from the abrasion itself. Still, in some instances, those especially in which the ulceration presents a very marked granular character, the discharge derived from this source alone is far from inconsiderable. The degree of sensibility which the ulcerated surface possesses also varies greatly; now and then the slightest touch is extremely painful; but, in the majority of cases, the ulcerated surface is not more sensitive than the adjacent parts, nor is the neck of the uterus, whose os is abraded, by any means constantly more tender to the touch than the same part of an organ entirely free from that affection.

Such, then, are the chief characters of these ulcerations or abrasions of the os uteri. I retain the old name of ulceration in spite of the objections which have been raised to it, because it seems to me better, as there is no risk of our being thereby led into error with reference to the appearances to which that name has been applied, to accept for the present the current terminology, and to avoid those disputes about words which are so proverbially fruitless.

The really important question is, whether ulceration of the os uteri is to be regarded as the first in a train of processes which are the direct or indirect occasion of by far the greater number of the ailments of the generative system; or whether, on the other hand, it is to be considered as a condition of slight pathological importance, and of small semeiological value,—a casual concomitant, perhaps, of many disorders of the womb, but of itself giving rise to few symptoms, and rarely calling for special treatment?



The former opinion, according to which it would be difficult to overrate the pathological importance of ulceration of the os uteri, is supported by the following allegations, which I will endeavour to state as briefly, but at the same time as correctly as possible. It is stated that the mucous membrane of the cervix uteri, by reason of its vascularity and of the abundance of mucous follicles which are imbedded between its duplicatures, is extremely liable to inflammation; and that this predisposition is still further increased by the abundant afflux of blood towards the neck of the womb, as well as by the position of that part of the organ, and its consequent exposure to irritation and injury from various sources. This inflammation of the cervix is said to manifest itself by the secretion of an abundant albuminous matter from the cervical glands, and by the opening of the otherwise closed os uteri,—as also in by far the greater number of cases by abrasion or ulceration of the os uteri, which usually occurs at a very early period. The cervix becomes swollen and congested, and it increases in size; but, while in some instances it remains soft to the touch, even after years of disease; its substance becomes more frequently the seat of inflammation, lymph is effused into it, and it is not merely enlarged, but indurated,—a change which takes place to a greater degree in those who have given birth to children than in the unmarried or the sterile. The different extent of the ulceration is the only cause assigned for the presence of induration of the cervix in one case, and its absence in another; but the relation of the two conditions does not seem to be by any means invariable. The degree to which the ulceration spreads appears also to be uncertain; in the great majority of cases it passes more or less deeply into the canal of the cervix, and sometimes occupies its whole extent, the internal os uteri, however, forming a barrier to its further progress, and preventing



almost invariably its extension into the cavity of the womb. It is then inflammation, with its attendant ulceration of the os and cervix uteri, and usually with consecutive induration of its tissue, to which, according to these views, the sufferings of the patients are due; and all the varied disorders of the uterine functions, the pain, the leucorrhœa, the hæmorrhages, the irregular menstruation, the sterility, or the frequently occurring abortions, are attributed to the sympathies of contiguous parts with that small portion of the womb which is the seat of disease. Ulceration, too, when once it has occurred, is alleged to have scarcely any tendency to heal; while, so long as it remains, there may perhaps be a lull in the patient's sufferings, and some temporary mitigation of her symptoms; but there can be no real cure until the time when, the period of sexual vigour having expired, the organs which subserved it pass into a common state of atrophy,—while cure, even then, is uncertain, and the consequences of disease out-last, by no means rarely, the uses of the part.

This picture (and I have added nothing to its colouring) of all the ills which follow from the seemingly trivial ulceration of the os uteri, must certainly be allowed to warrant those who drew it, if only it be a faithful portraiture, in attaching great importance to this affection,—in trying to discover it as early, to cure it as speedily as possible.

As uterine pathology is simplified beyond expectation by the discovery of an almost invariable cause of the most diverse symptoms, so uterine therapeutics also are made easy, according to the writers whose opinions I am relating, by one remedy being found almost always applicable for its cure, be the duration of the disease or its severity what it may. If the evil be slight, its removal will be speedy; if severe, a longer time will be required: but to modify the vitality of the part by caustics is the one unfailing indica-



tion ; and, this accomplished, the ulceration and the inflammation and its results disappear together, and the sufferings of years are thus almost infallibly got rid of in a few weeks, or, at latest, in a few months. There are, indeed, some cases of slight mischief, which rest, antiphlogistic treatment, and vaginal injections may cure ; but these are rare. There are also some circumstances under which the local abstraction of blood may be of service ; but what caustics to use, how often to repeat their application, how to prevent or to remove those inconveniences which sometimes result from their employment, are questions discussed as of chief importance ; since to these remedies all other local measures, as well as all general treatment, are but secondary and subservient.

If I thought that the accuracy of these opinions were beyond a doubt, or, on the other hand, that their entire fallacy had been satisfactorily demonstrated, I would not now venture to occupy your time in conducting you over twice travelled ground. I believe, however, that the profession is much divided, both as to the facts and as to their interpretation ; and that it may, therefore, prove no profitless task to endeavor to bring both to the test of a rigid enquiry, and to ascertain, as far as may be, where an error has been committed in observation, or where wrong inferences have been drawn from right observations. In doing this I must crave your indulgence, and that of all persons from whom I may differ ; for I am fully sensible how often I may need for myself that candid interpretation of my statements, and that lenient judgment of my errors, which I hope always to manifest to others.

The evidence by which to try the accuracy of those statements that I have endeavoured faithfully to set before you, is very various in its kind, and also of very various worth. It may, however, admit of being arranged under four prin-



cipal heads, to each of which, in succession, our attention must be directed.

In the *first place* we may enquire how far these statements receive confirmation from what we know of the anatomy and physiology of the uterus in a state of health.

Still, what answer soever we may receive to this question, it cannot, from its very nature, be conclusive ; it may render a certain occurrence probable or improbable, may substantiate or disprove the correctness of certain opinions or explanations, but cannot invalidate the evidence of positive facts.

In the *second place*, we may try to ascertain whether examination of the dead body shows the morbid conditions of the os uteri which have been described to be frequent or rare, slight or extensive ; and we may also endeavor to make out what connection subsists between ulceration of the mucous membrane of the os and cervix uteri, and other changes in the tissue of the organ.

It must, however, be borne in mind that many evidences of disease, such as are very obvious during life, may be greatly obscured, or may even entirely disappear after death : and further, that uterine disorders of the class which we are considering, though exceedingly painful, and seriously interfering with a woman's health and comfort, are yet not of a kind to prove the direct occasion of her death. Evidence derived from this source will therefore be open to the objection that it understates both the frequency and the importance of these diseases.

We may enquire, in the *third place*, whether there is any condition in which ulceration of the os uteri comes under our notice unconnected with other disease, and with such circumstances as to admit readily of our observing its characters and watching its course and consequences. Such a state of things presents itself to us often in the



case of the procident uterus, since the irritation to which the displaced organ is unavoidably exposed has the almost invariable effect of producing ulceration of the surface of the os uteri, and of the immediately adjacent parts of the organ.

But, whatever conclusions we may deduce from this source are open to all the objections inseparable from analogical reasoning. The probabilities of certain occurrences taking place in the uterus under other circumstances may be increased or weakened; but the evidence still falls short of absolute proof, either of the affirmative or of the negative of the question.

The *fourth* and most important enquiry of all concerns the frequency of these ulcerations of the os uteri under those circumstances in which they ordinarily come under our notice, and call, or are supposed to call, for our interference. This enquiry, however, must include not only the frequency of ulceration, but also the conditions generally associated with it, and the symptoms to which it commonly gives rise. If the alleged symptoms of ulceration are found to be not rarely present without ulceration, and if ulceration is discovered even where there are no symptoms; or if, in the same case, the ulceration may vary in extent, with no corresponding change in the symptoms; if an indurated state of the cervix exists without ulceration, and ulceration even of long standing, without induration,—the conclusion, especially if supported by the answers obtained to our previous enquiries, seems to me irresistible that the importance of inflammation of the cervix and of ulceration of the os uteri has been overstated; that they are not the cause of all the symptoms which they have been alleged to occasion, and that, in the treatment of uterine disease, many other considerations must influence us more than the mere removal of ulceration of the orifice of the womb.



If this were proved, it would still remain for us to consider whether, in any case, we may fairly look upon the ulceration of the os uteri as a symptom calling for distinct recognition and special treatment. There are, I am aware, some persons of deserved repute who will look upon this enquiry as superfluous ; but, for my own part, I do not conceive that, even if we arrived at a conclusion never so unfavorable to the supposed great importance of ulceration of the os uteri, we should be thereby entitled to regard its symptoms as a mere delusion, its very existence as little more than a figment of the fancy.

I. It was observed that, in the *first place*, something of additional probability or improbability might be imparted to those views which we propose to investigate by what anatomy and physiology teach us of the uterus and its functions. Now it is alleged, as one reason for the liability of the cervix uteri to affections from which the body of the organ is comparatively free, that it receives a greater amount of blood, that it is endowed with a higher degree of vitality than other parts of the organ. But surely this statement is erroneous ; and it suffices to examine the healthy uterus for any one to satisfy himself of the smaller vascularity of the neck than of the body of the womb. It is the body which chiefly grows as the period of puberty approaches, it is the body to which the great determination of blood takes place during each menstrual period, and from the lining membrane of the body that the menstrual flux is poured out. The looser tissue, the large vessels, the congested mucous membrane characteristic of the menstruating uterus, are limited, or nearly so, to the body and fundus of the organ ; and it is the epithelium of its cavity, not that of the neck of the womb, which is abundantly intermixed with the menstrual fluid. When conception takes place, it is the body of the uterus which first and chiefly enlarges,



its mucous membrane which becomes developed to the decidua, its tissue which grows and is metamorphosed into muscular fibre ; while the changes in the membrane of the cervix are limited to an increased activity of its mucous follicles, and the alterations in its substance to an increased formation of fibro-cellular tissue, with a comparatively scanty growth of muscular fibre. After delivery, the retrograde processes are much more striking in the body than in the neck of the womb. The mucous membrane of the cervix, stretched during pregnancy till the folds which it presented in the unimpregnated condition are obliterated, resumes once more its former plicated arrangement, while that of the body is detached and reproduced again and again before the organ reverts to its former state. The cervix is less sensitive than the body of the uterus : the sound which passes along the canal of the former almost unfelt, generally finds the lining of the uterine cavity acutely sensitive. The cervical canal has been forcibly dilated, it has been incised ; the tissue of the cervix has been burnt with the strongest caustics, or with the actual cautery, or portions of it have been removed by the knife, generally with no injurious consequence ; often with so slight a degree of constitutional disturbance, or even of local suffering, as to surprise those who advocate, little less than those who condemn, such proceedings.

But, if structurally so lowly organised,—if physiologically of such secondary importance,—if so much less subject than the body of the uterus to alterations in its intimate structure,—and if so comparatively insensible even to rude modes of therapeutical interference,—it certainly does appear to me that the assumption that some slight abrasion of the mucous membrane covering this part is capable of causing a list of ills so formidable as are attributed to it, ought to rest for its support upon some other and stronger



foundation than any inference fairly deducible from anatomical or physiological data.

II. We will now, however, enquire, in the *second place*, into the nature of the evidence on this subject which can be deduced from anatomical investigation. At first sight, indeed, it seems somewhat strange that those who believe in the frequency and importance of ulceration of the os uteri, have made no attempt to demonstrate those facts by examination of the body after death; while the only persons who have appealed to its results, allege this condition to be very rare and very trivial. It must not be forgotten, however, that appearances, the most striking characters of which consist in increased vascularity, and in that vital turgescence which disappears soon after life has departed, cannot be expected to be very marked some days after death. Indeed, no one who has felt the large firm growth of cauliflower excrescence sprouting from the neck of the womb during life, and has contrasted with it the small bundle of collapsed filaments which are all that remains of it after death, but must be prepared to admit that a condition of the os uteri very obvious during life, and the cause of very grave symptoms, may yet leave but very few traces after death.

Besides, it must, I think, be acknowledged that the data on which the negative assertions of morbid anatomists rest are not so faultless as to command by any means implicit confidence. Neither M. Lair,\* who, in 1828, gave some of the results of the inspection of 500 female subjects, nor M. Pichard,† who, in 1846, added to them the results of

\* Nouvelle Méthode de Traitement des Ulcères, etc., de l'Uterus, 8vo., Paris, 2nd edit. 1828.

† Des Abus de la Cautérisation, etc., dans les maladies de la matrice, 8vo., Paris, 1846.



300 more, gives the least information as to when, where, or how these examinations were made. They do not even state the age of any of the subjects, nor afford, either directly or indirectly, the slightest guarantee that these inspections were made with due care : on the contrary, indeed, the appearances observed are described so loosely that, with reference to many of them, it is by no means easy to determine their exact nature. Of this want of exactness no better proof can be given than the fact that while M. Lair discovered but 12 ulcerations of the os uteri out of 500 examinations, and M. Pichard but 5 out of 300 more, the latter mentions that in 54, or rather more than a sixth of his cases, a granular state of the os uteri was present ; while M. Lair makes no reference to his having ever met with such a condition. But I need say no more about these two writers, since any attempt to reconcile their statements leaves us in hopeless bewilderment, satisfied of but one thing, namely, that facts so collected and so arranged are available for no useful purpose.

I fear that a very similar statement must be made with reference to the facts bearing on this subject which have been collected in our own country. Not only is there no evidence of their having been observed with that minute care which is needed to render them thoroughly trustworthy ; but, with reference to many hundreds of the cases, if not to all, conclusions have been drawn as to the frequency of certain morbid conditions of the uterus, from the examination alike of the infant of a few weeks old and of the old woman of seventy : an oversight, to call it by the mildest term, which renders any results deduced from such data worse than useless.

It is idle to expect to meet with frequent indications of uterine disease before the generative organs have arrived at



maturity sufficient to commence the performance of their functions ; while, after the time of sexual vigour has passed, the only diseases we are likely to find are such as commenced at an earlier period, or such as may be incidental to the mere tissue of the organ, wholly independently of the function which it once performed.

The question then is, with what frequency, and associated with what other changes, do we meet with indications of inflammation and ulceration of the os and cervix uteri, in the bodies of women after puberty, and especially during the period of sexual activity ?

My own observations, which amount only to 62, are too few conclusively to settle this enquiry ; though I cannot but hope that the care with which they were made may compensate to some extent for the smallness of their number, and that they may serve at least to indicate the side towards which the weight of evidence inclines. Each examination was recorded according to a printed form, on which were specified for separate notice the dimensions of the uterus, the condition of the os, the length and breadth of the cervix uteri, the size of the uterine cavity, the thickness of the walls of the organ, and so on ;— points some of which were of practical interest, while the enforced attention to others had at least this advantage, that it prevented anything from being overlooked.

The uteri were taken from patients who died in the medical wards of St. Bartholomew's Hospital of other than uterine disease. Of the total number, 13 were above forty-five years of age, the remaining 49 between the years of fifteen and forty-five. Concerning all of the former class, and 30 of the latter, making a total of 43, it was either known with certainty, or concluded with great probability, that they were married, or had had



sexual intercourse ; the remaining 19 were believed to be virgins.

The subjoined table shows the general results of the examination of the uterus in these cases, and the relations borne to ulceration of the os uteri by the more important morbid appearances.\*

TABLE

*Showing the chief results of the examination of 62 uteri :—*

|   |      |
|---|------|
| Uterus healthy in . . . . .                                       | 33   |
| „ diseased in . . . . .   | 29   |
|   | —    |
| Ulceration of os uteri in . . . . .                               | 17   |
| „ existed alone in . . . . .                                      | 11   |
| „ with diseased lining of uterus in . . . . .                     | 3    |
| „ with induration of walls of uterus in . . . . .                 | 3—17 |
| Induration of walls of uterus, without ulceration of os . . . . . | 5    |
| Disease of lining of uterus, without ulceration of os . . . . .   | 7    |
|   | —    |
| Total of diseased uteri, 29                                       |      |

The os uteri was abraded in 1 of the subjects above 45 years of age ; and the lining of its interior was diseased in 5 of that number. In 11 of the 19 patients, all under 45 years old, who were virgins, the uterus was perfectly healthy ; in 8 it presented some sign or other of disease. This consisted 5 times in slight abrasion of the os uteri, which existed alone in 3 cases ; but was associated in the other 2 with some morbid state of the interior of the womb. Twice the interior of the uterus was the only part

\* In the above table, and in the general statements of the state of the uterus, no notice is taken of morbid conditions of the uterine appendages, nor of those affections of the womb (such, for instance, as fibrous tumors), which obviously stand in no necessary relation to inflammation of the organ, or to ulceration of its orifice.



affected; and once the uterine walls were much harder than natural.

There is certainly something at first not a little startling in the result at which we arrive, that the womb was found in a perfectly healthy condition in little more than the half of 62 women, none of whom died of uterine disease, nor were supposed to be suffering from any grave uterine ailment. But it may, it ought indeed to be, asked, what is the value of these appearances? Some of them may be of little moment, and the very frequency of their occurrence, instead of substantiating the opinion that they are of great importance, rather militates against that supposition. When ulceration of the os uteri was first observed, it was natural enough to attribute to it many symptoms, and to refer to its influence many structural changes. But what if such ulceration be found to be usually very limited in extent, and so superficial as to be unassociated with changes in the basement membrane of the affected surface, and exercising so little influence on the state of the uterus in general, as to be unconnected in a large number of instances with changes either in the interior of the womb, or in its substance; while induration of the uterine tissue and disease of the lining membrane of the womb are found independently of it, or of each other? Should such appear to be the case, it will, I think, be rendered in the highest degree probable that this abrasion of the os uteri has not the long train of sequences which have been supposed to follow it, but that it is of comparatively small pathological import; that it may be found to vary under the influence of comparatively trifling causes; and not infrequently to be dependent on functional disorder of the uterus, just as the mucous membrane of the tongue and mouth betrays the disturbance of the digestive system; that it may, in short, be the consequence,



and sometimes the index, but rarely the occasion, of the ailments with which it is associated.

Abrasion of the os uteri was observed in 11 instances unconnected with any other morbid condition of the womb. In 6 cases it was extremely slight, affecting just the edges of the os uteri, but not extending for more than a line in breadth: the mucous membrane lining the canal of the cervix was in all of these instances quite pale, but twice the lining of the uterine cavity was of a brighter red than natural. In the other 5 cases, the abrasion, though retaining the same character, was more extensive: once the abraded surface presented a finely-granular aspect, but was quite uniform; but in the other four cases it had an uneven worm-eaten appearance, probably due to a partial destruction of the papillæ which beset the os uteri.\* In 4 of these cases the abrasion extended for a short distance up the canal of the cervix, while once it was limited to that exclusively, the lips of the os being perfectly pale and healthy, and the mucous membrane of the cervix unaltered, except along a strip a third of an inch in breadth by an inch in length, where the posterior wall was abraded. In 3 of the above 4 instances there was some increase of vascularity in the mucous membrane of the cervix, which on one occasion extended for nearly half an inch up its canal; and once this condition was very marked, and the mucous membrane appeared swollen and infiltrated, but in no other case was there any appearance of thickening of the membrane either at the seat or in the immediate neighbourhood of the abrasion.

It is alleged, as we have already seen, that in the great

\* As in the delineation, by Drs. Hassall and Tyler Smith, in vol. xxxv. of the Medico-Chirurgical Transactions.



majority of instances ulceration of the os uteri gives rise to induration of the cervix, the result of the extension of inflammation to it, and of the effusion of plastic lymph into its structure, which lymph comes by degrees to be more and more organized. This description, however, of the manner in which induration of the cervix uteri takes place is purely imaginary; there are no observations whatever bearing on the subject, and the difficult task of tracing the results of chronic inflammation in any tissue is obstructed by so many special impediments in the case of the uterus, that it will probably be long before we shall be in a position to speak with any measure of certainty concerning it. The account of the process by which induration of the cervix uteri is produced may possibly be correct, but at any rate it is not proven; and few things have so retarded the advance of medical knowledge as the accepting some plausible hypothesis as if it were a statement of well-ascertained facts, and then proceeding to reason from it as if from some secure basis.

Under what circumstances is induration of the uterine tissue met with, and in connection with what other changes in the organ? It existed in 9 cases: in 5 of which it was not associated with any other disease of the uterine substance; in 3 it coexisted with ulceration of the os; and in 1 with a morbid state of the interior of the uterus. In an unmarried girl, aged eighteen, who died of cardiac dropsy, the tissue of the fundus, and of the upper half of the body of the uterus, presented its usual characters; but about half way down the body of the organ there began a strip of a dead yellow colour, and much denser texture, resembling fibro-cartilage or the elastic coat of an artery. The dense tissue lay immediately beneath the lining membrane of the uterus, and being at first only one



line in thickness, increased in width till it came to constitute the whole thickness of the cervix uteri. In the case of another patient, aged forty-seven, a similar condition was met with in the body of the uterus, but scarcely at all involved the cervix ; and in the three other cases, in all of which the women were under thirty years old, the cervix uteri alone was affected, being white, hard, creaking under the knife, and seeming under the microscope to be composed of an extremely dense fibrous tissue.

It appears, then, that most marked induration of the tissue of the cervix, and of part of the body of the womb, may exist where there is no other trace of inflammation, either past or present. It may also occur in connection with inflammation and ulceration of the lining membrane of the uterine cavity. In a woman who died at the age of fifty-six, about a third of the thickness of the wall both of the body and of the neck of the womb was exceedingly firm, and creaked under the knife. Abundant glairy secretion from the cervical glands, and some want of transparency of its lining membrane, were the only unusual conditions of the interior of the uterine neck ; but the cavity of the organ contained a copious purulent secretion mixed with blood ; its mucous membrane was thickened, vascular, and destitute of polish, and about the middle of the posterior wall completely destroyed, leaving the substance of the womb beneath uneven, rather soft, and presenting the appearance of a granulating surface.

Ulceration of the os uteri, and induration of the uterine walls, were associated together in three instances. On one occasion the ulceration was but slight, and the interior of the cervix extremely pale, though there was great injection of the lining of the uterine cavity. In this instance the cervical wall was much indurated, that of the body of the uterus rather less so. Extreme induration of the cervix



existed in one case where there was rather extensive ulceration of the os uteri; and in this instance the cervix was considerably hypertrophied. The patient from whom this uterus was taken had been under my care for some years previously, suffering from symptoms such as Gooch describes under the name of irritable uterus; her sufferings had been most severe, and the enlargement of her womb most considerable at a time when there was no abrasion of its orifice. In one case only, in which there was considerable induration of the cervix, there was a distinct line of congestion, about half a line in depth, between the ulcerated surface and the pale tissue of the indurated cervix.

In 10 cases the condition of the lining membrane of the uterine cavity deviated from that which characterizes it in a state of health. Thrice this state of the interior of the womb coexisted with ulceration of its orifice of moderate extent, and presenting its ordinary appearance; but in the remaining 7 instances the os uteri was perfectly healthy. In 7 of the 10 cases the uterine mucous membrane was vividly injected, so as to present a bright rose tint, and was more or less swollen and softened. Once very extensive disease of the lining membrane of the uterine cavity, probably of a tuberculous character, was discovered in the body of a woman fifty-six years old. In a second case in which the patient was stated to have had a copious leucorrhœal discharge, and to have complained of pain and of a sense of heat at the lower part of the abdomen, the intensely red mucous membrane of the uterine cavity presented an almost gelatinous appearance, and looked not unlike decidua. In this instance, though there was some ulceration of the os, yet the lining membrane of the cervix was quite pale; no secretion occupied its canal, and the tissue of the uterus was quite healthy. In a third case a small patch of ecchymosis was present beneath the lining of the uterine cavity;



and in a fourth, where the patient had not menstruated for five months, the lining membrane, though of a pinkish colour, had lost its polish, and looked more like an injected serous membrane than like the mucous lining of the womb.

It has not been from want of perception of the hopeless tediousness of such details, that I have ventured to take up your time so long with an account of the morbid appearances of the uterus, observed in these cases. Many, probably very many, of these conditions ought to be classed with pseudo-morbid, rather than with pathological appearances; but the data at present fail us for distinguishing with accuracy the one from the other. But, be this as it may, it is yet abundantly evident that many of them imply deviations from a healthy state more considerable than the trifling abrasion or ulceration of the os uteri, which existed on several occasions. We have seen that, in by far the majority of cases, the ulceration, when present, was not merely trifling in extent, but that it had not given rise to so much irritation of the neighbouring tissues as to produce any appreciable congestion of the mucous membrane in its vicinity; while the changes in the uterine substance alleged to depend upon it were oftener present without than in connection with it; and, moreover, none of the alterations about the os and cervix of the womb were so considerable as those which were apparent in its cavity.

Other evidence, indeed, must be adduced than that which analogical reasoning from the facts of physiology has suggested, or than that which examinations after death have furnished, before we shall be entitled to reject the opinion that inflammation of the cervix, and ulceration of the os uteri, are occurrences of very serious pathological importance,—the occasion of nearly all the ills which affect the physical well-being of woman. That other evidence must



be reserved till the next Lecture; but yet, unless I have altogether failed in my endeavors, the question is not left to-day quite where it was before; since, tempting though this hypothesis may be, and numerous the difficulties which it may appear to solve, we yet have found that it is opposed by the facts of physiology, unsupported, to say the least, by the results of anatomical investigation.



## LECTURE II.

Enquiry continued. III. Course and consequences of ulceration of the prolapsed uterus; they do not seriously disorder the uterine functions, or alter its structure. IV. Results of clinical observation. Examination of prostitutes suffering from gonorrhœa or syphilis shows susceptibility of cervix uteri to have been overestimated. Question considered with reference to importance of ulceration when present. Three different solutions of it suggested. Tests by which it is proposed to determine it. Nature of materials for this purpose stated.

Influence of ulceration of os on fecundity inconsiderable—Its occurrence connected with activity of sexual functions, as shown by patient's age and alleged cause of illness. Similarity in these respects to cases where ulceration is absent shown further by duration of symptoms, by disorder of menstruation, by occurrence of leucorrhœa, by complaints of pain, and in the main by condition of the uterus.

Further examination into relation of ulceration of the os uteri to induration of its cervix shows it not to be constant, nor bearing any necessary relation in degree.

General inferences from enquiry unfavorable to first two solutions of question concerning importance of ulceration of os uteri; and consequently to opinion that it is a condition of great importance.

MR. PRESIDENT,

SIR,—The facts and considerations which I had the honor to submit to you in my former Lecture, were, as you will remember, not brought forward as conclusive of the question that they were intended to elucidate. They seemed, however, to raise a presumption against rather than



in favor of the opinion, that inflammation of the cervix and ulceration of the orifice of the uterus are conditions of great pathological importance; and at any rate to warrant us in scrutinizing very closely such other evidence as may be adduced to substantiate its correctness.

I purpose to-day to advance further in this investigation; to abandon for the present physiological reasoning, to lay aside the scalpel of the anatomist, and to learn what we may of this subject from the study of the living.

The complex character of disease offers one great impediment to our thoroughly understanding it: the having surmounted this difficulty constitutes the great difference between the experienced physician and the novice. In the matter of uterine disease, we are, I fear, all novices; and it was this consideration which induced me to propose that we should, if possible, study—

III.—As the *third point* in this enquiry, ulceration of the os uteri, under some condition in which it presents itself to our notice unconnected with other disease, and with such circumstances as to admit readily of our observing its characters, and noting its course and consequences.

Fortunately the opportunities for this study abound; and in almost every woman whose uterus has become prolapsed beyond the external parts, we may observe the effects which ulceration of the os uteri commonly produces, the symptoms to which it generally gives rise; we can trace it in its progress, can watch it for weeks or months together, and see what it has led to where it has existed even for years.

A previously healthy woman leaves her couch too soon after her delivery, while her vagina is still lax, and its power of supporting the uterus is perhaps still further diminished by laceration of the perineum. The retrograde



process by which the bulk of the womb should be eventually reduced to its former dimensions is still incomplete; while the out-stretched uterine ligaments have not had time to contract to their former size, nor to recover their former resiliency. The heavy uterus, thus ill-supported, sinks down in the pelvis, approaches by degrees nearer and nearer to the external parts, and at length occasionally projects beyond them; and in the course of a few weeks or months the occasional prolapse becomes habitual. At first it is only a portion of the womb which thus projects; but often the whole uterus comes in the course of time to hang externally; while in many instances, a portion of the bladder in front, and of the rectum behind, descends into the sac of the tumor and increases its bulk. The delicate lining of the vagina, dragged down and inverted by the descent of the womb, furnishes an investment to the whole mass, and, assuming by degrees the characters of ordinary integument, becomes adapted to its new condition. The lips of the os uteri, however, and the immediately adjacent portion of the cervix which the vagina does not cover, retain in most cases much of their original delicate structure, while their very position at the most depending part of the tumor exposes them more than any other part to external injury; so that, with comparatively few exceptions, they are permanently in a state of abrasion or superficial ulceration.

These ulcerations are generally indolent, though by no means so much so as the ulcers of the inverted vagina itself, which are apt to become deep and excavated with raised and callous edges, and exactly to resemble chronic ulcers of the skin of other parts of the body. The abrasions of the os, however, after weeks or months still retain much the same characters as they originally presented. They extend, indeed, at one time over a larger extent of surface than they occupy at another; but they very rarely increase



in depth, or extend into the subjacent tissue. The ulcerated surface is denuded of epithelium ; now and then it is partially covered by a thin layer of yellowish lymph, but usually it is of a rather vivid red colour, and of a granular appearance. This granular character is generally more marked in proportion to the age of the ulceration ; while in a few instances the granulations are distinct from each other, rather elongated in form, and look exactly like hypertrophied papillæ. A transparent albuminous secretion in general covers the ulcerated surface, and is sometimes poured out freely from it ; but there is seldom any abundant discharge from the interior of the uterus, or even from the canal of the cervix.

In almost all cases of procidentia uteri (those alone excepted in which the misplacement of the womb occurs in advanced life, as a consequence of that general wasting of the tissues within the pelvis which takes place when the generative functions have been long extinct), the organ becomes in the course of time more or less considerably hypertrophied. This hypertrophy usually affects the neck of the womb more than its body, involving it in all its dimensions, though mostly to a greater degree in length than in thickness. It seems to be a simple increase of growth, such as we find occurs in other parts when subjected to constant and long-continued irritation ; but nowhere, except perhaps in the female mamma, is it observed so frequently or to so great a degree as in the uterus, since nowhere else does there exist the same store of formative material, which needs but a stimulus to excite it to active development. To the touch the enlarged cervix presents no remarkable hardness ; but its substance feels generally healthy, and the knife of the anatomist detects no alteration in its tissue. There is overgrowth of the part, but nothing more.



That such is the case, we have additional proof in the fact that a uterus misplaced, enlarged, with its orifice even abraded, and retained within the pelvis only by some mechanical contrivance, is nevertheless capable of performing all its functions, even its highest; and this in many instances with a remarkably small degree of disturbance. Not only does conception take place readily in spite of the existence of prolapse of the womb, but pregnancy and labor are not seldom passed through with no additional suffering beyond that which attended those processes on former occasions, or, at the worst, the increased discomfort of the patient is obviously due to purely mechanical causes.

It can scarcely be necessary to say, that it is not my intention for one moment to assert that misplacement of the womb produces no inconvenience, or that ulceration of its orifice, when it is thus misplaced, is of no importance. Daily experience yields abundant proof to the contrary; but a detail of the symptoms of prolapse of the uterus forms no part of our present object. I referred to the accident and its consequences only for the sake of suggesting the reasonable inference, that if inflammation of the neck of the womb were as frequent as has been supposed, or ulceration of its orifice the necessary occasion of such serious disorder of function and alteration of structure, we ought to meet with some of the most striking illustrations of these facts in cases where the womb, by its misplacement, is exposed to injuries from without, such as it was never intended to encounter.

But though it be conceded, as I think it must be by all observers, that the symptoms supposed to characterise inflammation of the neck of the womb, and ulceration of its orifice, are not met with either constantly or in a specially marked degree in cases of prolapsus or procidentia uteri; still we should not be justified in drawing



an absolute conclusion from what we observe in the misplaced uterus, as to the effects produced by similar ailments attacking the organ when in its natural position. It may be alleged, and with plausibility, that during the gradual process of its misplacement, the sympathies of the womb have been rendered less keen than they were while the organ retained its natural position; and that thus it comes to bear, with comparative impunity, injuries which might otherwise have produced great disorder of its functions and great alteration of its tissue.

Bearing in mind, then, the necessity for care, lest from any facts we draw a wider inference than they really warrant, let us now turn to the *fourth* and most important part of this enquiry, and seek to ascertain,

IV.—What clinical observation generally teaches us concerning ulceration of the os uteri,—its course, its symptoms, and its importance.

Before entering on the general consideration of the subject, however, there is one point specially elucidated by a particular class of patients, and concerning which it may not be inappropriate to say a few words. The peculiar susceptibility of the cervix and os uteri, the extreme readiness with which they become the seat of inflammation and ulceration, are much insisted on by those writers whose opinions we are considering. Now, assuming such views to be correct, we may, I think, expect them to receive full confirmation from the medical history of those wretched women who live by prostitution. In them, more than in any other class of persons, do we meet with the conditions best calculated to inflict local injury on the neck of the uterus. It will therefore be reasonable to expect that they will present, with remarkable frequency and intensity, an ulcerated condition of the os uteri, an indurated and hypertrophied state of its cervix.



It is true that the severest forms of these affections must prevent persons labouring under them from exercising their disgraceful calling; but yet no one who is familiar with the state of wretchedness, suffering, and disease, in spite of which the lower order of prostitutes continue to ply their trade, but would expect to meet among them with many instances of those ailments in their acute stage, if they were in reality very frequent. Moreover, as a hypertrophied cervix uteri returns, even under favorable circumstances, extremely slowly to its original size, there would be many occasions in which the chronic effects of by-gone inflammation must be evident in those who had devoted themselves for months or years to a vicious life.

Observation, however, seems to show that, be the causes of ulceration of the os uteri, of inflammation, hypertrophy, and induration of its cervix, what they may, sexual excesses, at any rate, have no great share in their production. Four years ago, being anxious to satisfy my mind on this point, I examined, by permission of Mr. Lawrence, forty women on their admission into the venereal wards of St. Bartholomew's Hospital. Of these 40 patients, 18 suffered from gonorrhœa alone, 10 from gonorrhœa and syphilis, and the remaining 12 only from syphilis. The cases were unselected, and the examinations were made as soon as possible after the admission of the patients into the Hospital.

In 27 instances, the os and cervix uteri were absolutely healthy, or presented only, and this but rarely, a slight blush of redness, deepening the natural hue of those parts. In 10 of the remaining thirteen, the ulceration, if indeed it deserved the name, was a mere excoriation not above a line in breadth, partially or completely circumscribing the os uteri, but associated with no other change of its tissue.



In the remaining 3 cases, the abrasion was more extensive, surrounding the os uteri for about a third of an inch; and in the case of one of these three, that of a woman who had given birth to children, the lips of the os were noted to be elongated: this, however, was the nearest approach to a hypertrophied state of the cervix met with in the whole forty cases; while in no instance was there any such alteration of the texture of the part as to deserve the name of induration.

These facts, however, after all, prove no more than this,—that the susceptibility of the os and cervix uteri to the effects of local injury has probably been over-estimated; they do not bear, or bear but very slightly, on the more important enquiry as to the value to be attached to ulceration of the os uteri when present. In approaching this question, as we are bound to do with no conscious bias of the mind in one or the other direction, three different possibilities at once suggest themselves to us, of which any one may be correct.

1st. Ulceration of the os uteri may be the cause of all the symptoms of uterine disease which have been attributed to it; and consequently it may be of no less importance to remove it when present, than to ascertain the fact of its existence.

2nd. Though not in itself the cause of the symptoms, or at least of the greater part of them, it may yet be the concomitant of certain forms of uterine disease; of the state and progress of which its extent and degree may be a trustworthy index. In this case, though of small importance as far as therapeutical proceedings are concerned, it may yet be of great semeiological value.

3rd. Neither the one nor the other of these suppositions may be correct; but either the ulceration may exist alone, giving rise in that case to few symptoms, or to none at



all; or it may, in other instances, complicate different uterine ailments, though not an index of their state, nor varying with their changes.

Considering that, in the opinion of some writers, so large a proportion as 81 per cent. of all women presenting symptoms of uterine ailment, are suffering from inflammatory disease of the tissue or canal of the cervix uteri, and 70·4 per cent. likewise from ulceration of the os uteri, this enquiry can scarcely be expected to detain us long. The evidence in support of such a view may fairly be expected to be overwhelming; and the symptoms of ulceration of the os uteri to be characteristic, either from their peculiarity or their severity, or from both together; and to differ in important respects from such as attend upon those uterine ailments which are not associated with that condition. Fortunately, too, the presence or absence of ulceration of the mouth of the womb is a fact easily ascertainable; so that there can be no difficulty in making this the ground of a division of cases of uterine disease into two grand classes for the purpose of comparison.

I purpose, then, to enquire whether sterility is more frequent, whether the rate of fecundity is lower, and whether abortion occurs oftener in the one class of cases than in the other? Whether menstrual disorder is more common, more severe, or different in kind; whether leucorrhœa is more abundant, or furnished from a different source; or whether pain is less tolerable when the os uteri is ulcerated, than when that condition is absent? And lastly, whether similar or different causes produce the uterine affections in the two classes of cases; whether the duration of illness is the same; whether the structural alterations of the womb are alike or diverse?

If this enquiry should discover marked differences between the two classes of cases, it will then be for us to determine



whether the ulceration is to be regarded as the *cause* of the coexisting disease, or only as a constant attendant upon it? That it must hold one or other of these places, will, I think, be established beyond cavil; and it will follow that on either supposition the importance of ascertaining its existence can scarcely be over-rated.

If, on the other hand, we find that a very great degree of resemblance exists between the two classes of cases; that women of the same age, under similar circumstances, present the same symptoms, leading to the same results, having the same duration, and attended with similar structural changes, whether ulceration of the os uteri be absent or present; it may then be inferred with equal certainty that ulceration of the womb can neither be regarded as a general cause of uterine disease, nor as a trustworthy index of its progress; but that it is a pathological condition of secondary moment, and this even though there be still some difficulty in assigning to it in every instance its proper value.

The materials from which I hope to make some approach to a satisfactory answer to these questions are derived from 1226 cases, of which records were preserved while the patients were under my care, either at the Middlesex or at St. Bartholomew's Hospital. Of these, 300 were in-patients of one or other institution, and the remaining 926 were out-patients of St. Bartholomew's Hospital, between Jan. 1, 1850, and Oct. 15, 1853. Conclusions as to the results of treatment can of course be drawn only from the in-patients of a hospital; but the history of out-patients yields, if carefully recorded, trustworthy data with reference to the symptoms of disease. It has been my custom for the past three years to keep a minute account of the history of my out-patients at St. Bartholomew's Hospital,—recording with reference to each one her age, the number of years she has been married; if a widow,



the duration of her widowhood, the number of children to whom she has given birth, as well as that of the abortions which she has experienced, with the date of her last pregnancy. Further, the date of her first menstruation, with the manner in which that function has generally been performed, as also the ordinary presence or absence of leucorrhœal discharge, have always been noted; together with the date of the commencement of her present illness, its symptoms, and the result of vaginal examination; which last I have invariably made, and dictated the account of, myself. These particulars have been taken of all cases without selection,—or if any were omitted, they were only some of those cases of trivial ailment which all who have had much experience of hospitals know to be never absent, in certain proportions, from these institutions; cases sometimes of mere loitering idleness, but oftener of destitution, where the symptoms are those of want, not of disease, and food, not physic, is the appropriate remedy.

In 268 of the 1226 cases, the symptoms appeared to me to justify the use of the speculum; and in 125 instances the os uteri was found to be the seat of ulceration; while in the remaining 143 it showed no sign of that condition. Though for some purposes conclusions may be drawn from the whole number of patients, yet obviously the solution of the questions before us must be attempted by a comparison of the smaller number of instances in which examination with the speculum was instituted.

Thus much premised as to the grounds on which the different conclusions rest, to which I now have to crave your attention, we are in a position to take up successively the various points that I have already referred to as likely to elucidate the question of the influence of ulceration of the os uteri in the production of uterine disease,



or in occasioning functional disorder of the generative system.

The perpetuation of the species being the highest function of the generative apparatus in either sex, it is but natural to expect that any serious disease of the organs which subserve that function shall produce some appreciable effect in interfering with its performance, and that it shall, in the case of women, show its influence either in the production of absolute sterility, in lessening the number of conceptions, or in increasing the number of abortions.

For our purpose it is not sufficient as a standard of comparison to know the proportion of children to a marriage generally throughout this country (which is about 4·2); but we ought to ascertain the general fecundity of women in the same class of life, and placed under the same general circumstances with those who apply as patients at the hospital.

In the subjoined table, therefore, the first division represents the proportion of pregnancies which reached their full term, and also the proportion of abortions to a marriage in 980 married women at different ages who were attended in their confinement by pupils of St. Bartholomew's Hospital. The second division represents the same fact in the case of 980 women married above one year, who applied during the child-bearing period of life for relief on account of any ailment of the uterine system, and shows also the proportion of cases in which marriage had proved absolutely sterile. The third division represents the same facts with reference to 125 of the above 980 persons in whom, examination with the speculum having been made, the os uteri was found unaffected by ulceration; and its results may be compared with those in the fourth division, which refers to 117 of the same number of patients in whom ulceration of the os uteri existed.



TABLE I.

| Ages.                | Healthy Women. |                            |                             | Total Patients with Uterine Symptoms. |                                  |           |            | Patients with Uterine Symptoms, without Ulceration. |                                  |           |            | Patients with Uterine Symptoms, with Ulceration. |                                  |           |            |
|----------------------|----------------|----------------------------|-----------------------------|---------------------------------------|----------------------------------|-----------|------------|---|----------------------------------|-----------|------------|--|----------------------------------|-----------|------------|
|                      | Number.        | Children to each Marriage. | Abortions to each Marriage. | Number.                               | Proportion of Sterile Marriages. | Children. | Abortions. | Number.   | Proportion of Sterile Marriages. | Children. | Abortions. | Number.  | Proportion of Sterile Marriages. | Children. | Abortions. |
| Under . . . 20 years | 25             | 1.1                        | .08                         | 10                                    | 1 in 3.3                         | 1.        | —          | —   | —                                | —         | —          | 3  | 1 in 1.5                         | 1.        | —          |
| Between 20 and 30 "  | 525            | 2.6                        | .4                          | 343                                   | 1 " 7.7                          | 2.        | .9         | 40  | 1 in 4.4                         | 1.25      | .6         | 63   | 1 " 6.3                          | 2.        | .84        |
| " 30 " 40 "          | 384            | 5.7                        | .85                         | 350                                   | 1 " 6.8                          | 4.        | .9         | 62  | 1 " 4.                           | 4.        | 1.29       | 43   | 1 " 10.7                         | 4.5       | 1.1        |
| " 40 " 50 "          | 46             | 7.3                        | 1.5                         | 277                                   | 1 " 17                           | 3.8       | 1.         | 23  | —                                | 4.86      | 2.47       | 8  | —                                | 6.5       | 1.75       |
| Totals and Averages  | 980            | 4.17                       | .7                          | 980                                   | 1 " 8.5                          | 2.7       | .47        | 125   | 1 " 5.2                          | 3.3       | 1.3        | 117  | 1 " 7.3                          | 3.5       | .89        |



With reference to the results of this table, there can be no doubt but that the proportion of sterile marriages is really less, especially in the case of women between twenty and thirty years old, than is here represented. It is true that no cases are included in it in which the women had been married for only a year, or for a shorter time; but instances are by no means uncommon of conception not taking place till after a lapse of two years or more from marriage, although there be no obvious cause in the health of either husband or wife to account for this delay.\* But leaving the sterile marriages out of the question, we cannot but be struck with the great diminution in fecundity in those women who were suffering from ailments of the generative system. This result, however, instead of being more marked in cases of ulceration of the os uteri, than in those where no such condition existed, appears in reality to be less so; while a comparison of the third and fourth divisions of the table with the second, indicates that other causes (such, I believe, as ovarian diseases and uterine tumors) exert a more unfavorable influence on female fecundity than the various morbid conditions of the cervix or os uteri.

Though the table seems to show that the number of successful pregnancies was slightly greater, and the number of abortions slightly less, in those cases in which ulceration of the os uteri was present, than in those in which it was absent, I do not wish to draw from it such a conclusion. The difference between the two classes of cases is but small, and the number of facts from which this table

\* See M. Villermé's observations on this subject in *Annales d'Hygiène*, tom. v. p. 86.



is constructed are too few to justify any such inference ; but I do think that we are warranted in concluding that ulceration of the os uteri does not interfere with the performance of the most important function of the generative system in any peculiar manner, or to a greater degree than many other uterine ailments.

So many other causes, however, besides the state of a woman's sexual health, may interfere with conception, that we must be extremely guarded in drawing conclusions with reference to it from the rate of her fecundity alone. The manner in which her menstrual function is performed affords a better index to the healthy or diseased state of her generative system ; and to that we will presently direct our attention. But the more numerous the points of view from which we compare cases of ulceration of the os uteri with other cases of uterine disease, unattended by ulceration, the greater will be the probability of our coming ultimately to a correct conclusion with reference to the value of that condition. Before enquiring into the state of menstruation in the two classes of cases, we will therefore compare them in one or two other respects.

The facts to which I called your notice this afternoon with reference to the comparative immunity of prostitutes from serious ulceration of the os uteri, showed that mere excessive sexual intercourse does not exert a special influence in the production of that affection : the table we have just examined has proved that a woman's fecundity is not peculiarly diminished by its existence. This second table, however, seems to render it probable that some connection exists between the period of the most vigorous performance of the sexual functions and that state of the uterus in which ulceration of its orifice is most apt to occur ; since, while 43 per cent. of the cases where ulce-



ration was absent occurred after the age of 35, only 13·6 per cent. of those in which ulceration existed were met with subsequent to that age.

TABLE II.

*Showing the Age of the Patients in the two Classes of Cases.*

| AGE.  | ULCERATION. |          |
|---|-------------|----------|
|   | Absent.     | Present. |
| Under 20 years  | 0           | 4        |
| Between 20 and 30 "                                       | 47          | 69       |
| " 30 " 35 "   | 36          | 35       |
| " 35 " 40 "   | 31          | 9        |
| " 40 " 50 "   | 23          | 8        |
| " 50 " 60 "   | 3           | 0        |
| Above 60 "  | 2           | 0        |
|   | 142         | 125      |
| Of 1st class . . . 9 single . . . 3 not one year married. |             |          |
| " 2nd " . . . 6 " . . . 2 " "                             |             |          |

The same fact may, perhaps, be thought to receive some slight confirmation from the circumstance that if we enquire into the cause of the patient's symptoms in the two classes of cases, we shall find that they were attributed to marriage, pregnancy, or delivery, in 48 per cent. of those in which the os uteri was ulcerated, and only in 41 per cent. of those in which ulceration was absent,—a difference, however, which is less marked if those cases only are included in which a definite cause was assigned for the symptoms.

But be this as it may, there is at least one point which the subjoined table clearly illustrates, namely, the general identity of the causes which produces the symptoms of uterine disease, whether ulceration of the os uteri is present or absent.



TABLE III.

*Showing alleged Causes of Uterine Ailment.*

| CAUSES.  | ULCERATION.     |                      |                 |                      |
|--|-----------------|----------------------|-----------------|----------------------|
|  | Absent.         |                      | Present.        |                      |
|  | Actual Numbers. | Proportion per cent. | Actual Numbers. | Proportion per cent. |
| None assigned . . .                            | 55              | 38·4                 | 41              | 32·8                 |
| Of the remaining . . .                         | 88              | 61·6                 | 84              | 67·2                 |
| Marriage . . .                                 | 10              | 11·3                 | 7               | 8·3                  |
| Pregnancy . . .                                | 3               | 3·4                  | 2               | 2·3                  |
| Abortion . . .                                 | 17              | 19·2                 | 16              | 19·                  |
| Delivery . . .                                 | 27              | 30·7                 | 32              | 38·                  |
| Lactation . . .                                | 2               | 2·2                  | 3               | 3·5                  |
| Gonorrhœa or Syphilis                          | 13              | 14·7                 | 11              | 13·                  |
| Disordered Menstrua-<br>tion . . . . .         | 3               | 3·4                  | 0               | 0                    |
| Uterine or Abdominal<br>Inflammation . .       | 1               | 1·1                  | 3               | 3·5                  |
| Injury, Operations on,<br>or Disease of Uterus | 7               | 7·9                  | 4               | 4·7                  |
| Sedentary Occupation                           | 2               | 2·2                  | 3               | 3·5                  |
| Other Causes . . .                             | 3               | 3·4                  | 3               | 3·5                  |
|  | —               | —                    | —               | —                    |
|  | 88              | 99·5                 | 84              | 99·3                 |

Nor, indeed, as far as can be judged from the duration of the symptoms before their severity or their continuance impelled the patients to seek relief at the Hospital, do we find materials for drawing any distinction between the two classes of cases. It appears that, while 46 per cent. of those cases in which ulceration was absent applied at the Hospital within a year after the commencement of their ailments, not more than 47 per cent. of those in which ulceration existed sought relief during the same period. From this fact it is, I think, fair to infer that the patients suffered about equally under both circumstances, and that the symptoms were not materially aggravated by the presence of ulceration of the os uteri.



TABLE IV.  
*Showing Duration of Symptoms at Commencement of Treatment.*

| DURATION.                 | ULCERATION.     |                      |                 |                      |
|---------------------------|-----------------|----------------------|-----------------|----------------------|
|                           | Absent.         |                      | Present.        |                      |
|                           | Actual Numbers. | Proportion per cent. | Actual Numbers. | Proportion per cent. |
| Under 1 month             | 7               | 5.1                  | 7               | 5.9                  |
| Between 1 and 3 months    | 14              | 10.2                 | 15              | 12.7                 |
| „ 3 and 6 „               | 27              | 19.1                 | 13              | 11.                  |
| „ 6 and 9 „               | 10              | 7.3                  | 7               | 5.9                  |
| „ 9 and 12 „              | 6               | 4.4                  | 14              | 11.8                 |
| „ 12 and 18 „             | 8               | 5.8                  | 6               | 5.                   |
| „ 18 months and 2 yrs     | 11              | 8.                   | 9               | 7.6                  |
| „ 2 and 3 „               | 12              | 8.8                  | 16              | 13.5                 |
| „ 3 and 5 „               | 16              | 11.7                 | 19              | 16.1                 |
| „ 5 and 10 „              | 15              | 11.                  | 10              | 8.4                  |
| From 10 years and upwards | 10              | 7.3                  | 2               | 1.6                  |
|                           | 136             | 98.7                 | 118             | 99.5                 |

If we pursue this enquiry further, and endeavor to ascertain, as I proposed doing a few minutes ago, whether the manifestations of menstrual disorder are alike or diverse in the two classes of cases, we shall but obtain another proof of the same general correspondence between them.

TABLE V.  
*Showing the State of Menstruation.*

| MENSTRUATION.  | ULCERATION.     |                      |                 |                      |
|--|-----------------|----------------------|-----------------|----------------------|
|  | Absent.         |                      | Present.        |                      |
|  | Actual Numbers. | Proportion per cent. | Actual Numbers. | Proportion per cent. |
| Natural . . . . .                                      | 52              | 37.6                 | 36              | 30.                  |
| Ceased from age . . . . .                              | 8               | 5.7                  | —               | —                    |
| In the remainder . . . . .                             | 78              | 56.9                 | 84              | 70.                  |
| modified as follows:—                                  |                 |                      |                 |                      |
| Suppressed from suck-<br>ling or pregnancy } . . . . . | 6               | 7.6                  | 13              | 15.4                 |
| Suppressed . . . . .                                   | 2               | 2.5                  | 1               | 1.1                  |
| Irregular . . . . .                                    | 5               | 6.4                  | 5               | 5.9                  |
| Scanty, or postponing . . . . .                        | 10              | 12.8                 | 12              | 10.7                 |
| Painful . . . . .                                      | 17              | 21.7                 | 9               | 10.7                 |
| Profuse, or anticipating . . . . .                     | 30              | 38.4                 | 37              | 44.                  |
| Always unnatural in<br>some respect . . . . .          | 8               | 10.2                 | 7               | 8.3                  |
|  | 78              | 99.6                 | 84              | 99.6                 |
| Gross total, 138                                       |                 |                      | 120             |                      |



This table, like the others, comments on itself, and needs but little to be said in the way of explanation; for such differences as are observed between the two classes of cases show no more than a somewhat greater activity of the sexual function in those where ulceration was present than in the others. In them pregnancy or lactation was more frequent; scanty, irregular, suppressed, or painful menstruation was rarer; while excessive or over-frequent menstruation occurred with greater frequency.

But there are other respects in which, though at the risk of seeming tedious, a comparison may be instituted between the two classes of cases, with the view of determining whether the presence of ulceration of the mouth of the womb

TABLE VI.

*Showing the Relation of Leucorrhœa to Ulceration of the Os Uteri.*

| LEUCORRHŒA.  | ULCERATION.     |                      |                 |                      |
|--|-----------------|----------------------|-----------------|----------------------|
|  | Absent.         |                      | Present.        |                      |
|  | Actual Numbers. | Proportion per cent. | Actual Numbers. | Proportion per cent. |
| Absent . . . . .   | 13              | 10·4                 | 5               | 4·                   |
| Present . . . . .  | 125             | 89·6                 | 115             | 96·                  |
|  | <hr/> 138       | <hr/> 100·           | <hr/> 120       | <hr/> 100·           |
| Its Quantity estimated in . . . . .                        | 101             | 80·8                 | 68              | 59·1                 |
| Of these—Profuse . . . . .                                 | 38              | 37·6                 | 30              | 44·1                 |
| Scanty . . . . .   | 21              | 20·7                 | 10              | 14·7                 |
| Moderate . . . . .   | 42              | 41·5                 | 28              | 41·1                 |
|  | <hr/> 101       | <hr/> 99·8           | <hr/> 68        | <hr/> 99·9           |
| Its Source determined in . . . . .                         | 80              | 64·                  | 85              | 73·8                 |
| Of these—from Uterus . . . . .                             | 54              | 67·5                 | 53              | 62·3                 |
| Vagina . . . . .   | 19              | 23·7                 | 6               | 7·                   |
| Both . . . . .   | 7               | 8·7                  | 8               | 9·                   |
|  | <hr/> 80        | <hr/> 99·9           | <hr/> 12        | <hr/> 14·1           |
| Also to an appreciable degree from ulceration in . . . . . |                 |                      | 12              | 7·                   |
| From Ulceration alone . . . . .                            |                 |                      | 6               |                      |
|  |                 |                      | <hr/> 85        | <hr/> 99·8           |



alters the character of the symptoms, or increases or otherwise modifies their severity. Leucorrhœal discharges are enumerated as among the most constant and most characteristic symptoms of ulceration of the os uteri. The discharge is supposed to be furnished either from the ulcerated surface itself, or from the inflamed and irritated canal of the cervix ; and the healing of the ulceration is conceived to be the first step towards the cure of the discharge,—often, indeed, all that is necessary for its removal. Let us, therefore, see whether leucorrhœa is greatly more frequent, more profuse, or furnished from a different source, where ulceration exists, than in cases where it is absent (see Table VI.)

Now Table VI. appears to me to show very clearly that leucorrhœal discharges are not dependent for their cause upon any peculiar condition of the uterus, such as of necessity gives rise to ulceration of the os uteri, or such as is itself consequent upon ulceration of the os, and still more that they are not furnished to any considerable degree by the ulcerated surface itself. It will be seen that, in 67 out of 85 cases in which the source of the discharge was determined by the speculum, or in 78·8 per cent., no appreciable amount of secretion was furnished from the abraded surface ; while the instances in which the abrasion seemed to be the sole source of the discharge did not exceed 6 out of 85 cases, or 7 per cent. of the total number.

If the same kind of enquiry be extended to another symptom seldom absent in uterine affections,—namely, pain,—we shall once more find a close correspondence between the two classes of cases. The only difference, indeed, seems to be a slight one in degree, such as has been already exemplified in other instances. Menstruation was found to be oftener excessive, leucorrhœa to be more frequently profuse, in cases where the os uteri was ulcerated ; and, in like manner, the existence of that condition seems to be accom-



panied by pain diffused generally over the whole pelvic region more frequently when the os uteri is ulcerated than when ulceration is absent.

TABLE VII.

*Showing the Frequency and the Seat of Pain in the two Classes of Cases.*

| PAIN.  | ULCERATION.     |                      |                 |                      |
|--|-----------------|----------------------|-----------------|----------------------|
|  | Absent.         |                      | Present.        |                      |
|  | Actual Numbers. | Proportion per cent. | Actual Numbers. | Proportion per cent. |
| No complaint of pain . . .                               | 21              | 14.6                 | 18              | 14.4                 |
| Pain referred to uterus . . .                            | 36              | 25.1                 | 28              | 22.4                 |
| Do. to back . . . . .                                    | 31              | 9.                   | 6               | 4.8                  |
| Do. to pubic or iliac region . . .                       | 7               | 4.8                  | 3               | 2.4                  |
| Do. to uterus and back . . .                             | 24              | 16.7                 | 20              | 16.                  |
| Do. to uterus and pubic }<br>or iliac region . . . . . } | 12              | 8.3                  | 9               | 7.2                  |
| Do. to back and iliac region . . .                       | 9               | 6.2                  | 11              | 8.8                  |
| Do. to all these regions . . .                           | 21              | 14.6                 | 30              | 24.                  |
|  | <hr/> 143       | <hr/> 99.3           | <hr/> 125       | <hr/> 100.           |

Lastly, it remains for us to enquire what was the condition of the uterus, in as far as it could be ascertained by examination, in the two classes of cases, selecting for comparison those points which admit of being ascertained most readily (see Table VIII.)

This last table once more exemplifies the same general correspondence as we have already noticed between the two classes of cases ; but it also shows that enlargement of the body of the uterus, and enlargement or induration of its cervix, existed much more frequently in connection with ulceration of the os uteri than independently of that condition. Still the exceptional cases are far too numerous to allow of the assumption that the latter state is usually the cause of the former. Moreover, in two-thirds of the cases where ulceration was absent, and in one-third of those in which it was present, the enlargement was confined to the



TABLE VIII.\*

*Showing the State of the Uterus, in as far as it could be ascertained, in the two Classes of Cases.*

| STATE OF UTERUS.   | ULCERATION.     |                      |                 |                      |
|--|-----------------|----------------------|-----------------|----------------------|
|  | Absent          |                      | Present.        |                      |
|  | Actual Numbers. | Proportion per cent. | Actual Numbers. | Proportion per cent. |
| Uterus apparently healthy . . . . .                              | 29              | 20·8                 | 36              | 30·                  |
| Not healthy in some re-<br>spect or other . . . . .              | 110             | 79·2                 | 84              | 70·                  |
| Misplaced in . . . . .   | 36              | 32·7                 | 31              | 36·9                 |
| lower than natural . . . . .                                     | 28              | 25·4                 | 21              | 25·                  |
| retroverted, or retroflected                                     | 3               | 2·7                  | 5               | 7·9                  |
| anteverted, or anteflected                                       | 5               | 4·6                  | 5               | 7·9                  |
| Its Body enlarged . . . . .                                      | 30              | 27·2                 | 36              | 42·8                 |
| body alone . . . . .   | 20              | 18·1                 | 12              | 14·2                 |
| os or cervix also en-<br>larged or indurated } . . . . .         | 10              | 9·                   | 24              | 28·5                 |
| Its Cervix or Os enlarged }<br>or indurated, or both } . . . . . | 44              | 40·                  | 47              | 55·9                 |
| cervix or os alone . . . . .                                     | 34              | 30·9                 | 23              | 27·3                 |
| body also . . . . .  | 10              | 9·                   | 24              | 28·5                 |
| Its Orifice more or less }<br>congested . . . . . } . . . . .    | 58              | 52·7                 |                 |                      |
| with otherwise healthy }<br>uterus . . . . . } . . . . .         | 20              | 18·1                 |                 |                      |
| enlarged uterus . . . . .  | 9               | 8·1                  |                 |                      |
| misplaced uterus . . . . .                                       | 12              | 10·9                 |                 |                      |
| enlarged or indu-<br>rated os or cervix } . . . . .              | 17              | 15·4                 |                 |                      |

body of the womb,—a fact easily reconcileable with the belief that that part of the organ, as it is of the greatest physiological importance, so is also the more frequent seat of

\* It is almost needless to observe that this table represents only those morbid conditions of the uterus which bear upon the subject of these Lectures, and even they existed in several other combinations besides those which are here represented.



the gravest pathological processes, or, at any rate, their most usual point of departure.

It also seems questionable, from the data which this table furnishes, whether induration of the os or cervix uteri is so generally dependent on ulceration of the os uteri as has been asserted, since it was present in 40 per cent. of the cases where no ulceration existed. Besides, if such a connection as that of cause and effect subsisted between ulceration of the os uteri and induration of its cervix, or even if there were any necessary relation of degree between them, we ought to find the most extensive ulceration coexist with the greatest hypertrophy and most considerable induration; while slight ulceration of the os, and an otherwise healthy state of the cervix, might be expected to be usually found together. Facts, however, as will be presently seen, do not bear out this opinion.

The tables to which I now beg your attention show the data on which this assertion is rested.

In 121 out of the total 125 cases of ulceration of the os uteri, its seat, character, and extent were described with minuteness sufficient to warrant conclusions being drawn from them. I have endeavored to discriminate between that form of abrasion which is smooth, consisting in a mere absence of the epithelium, or slightly aphthous, presenting somewhat of a worm-eaten appearance,—the epithelium being removed only from small circumscribed spots or points,—and the other distinctly granular variety of the affection. I have also considered as slight those abrasions which neither extended along the canal of the cervix nor reached for more than a line around the os uteri; as moderate, those which, whether on one lip or on both, occupied a surface of two or three lines in extent; and as considerable, all those of greater dimensions.



TABLE IX.

*Showing the Different Seats and Comparative Frequency of Different Forms of Ulceration of Os Uteri.*

| ULCERATION.        | Simple Abrasion. |                      | Granular.       |                      | Both Varieties. |                      |
|--------------------|------------------|----------------------|-----------------|----------------------|-----------------|----------------------|
|                    | Actual Numbers.  | Proportion per cent. | Actual Numbers. | Proportion per cent. | Actual Numbers. | Proportion per cent. |
| Of anterior lip .  | 5                | 4.1                  | —               | —                    | 5               | 4.1                  |
| Of posterior lip . | 11               | 9                    | 4               | 3.3                  | 15              | 12.3                 |
| Of both lips       | 57               | 47.1                 | 44              | 36.3                 | 101             | 83.4                 |
|                    | 73               | 60.2                 | 48              | 39.6                 | 121             | 99.8                 |

TABLE X.

*Showing the Degree in which the Different Forms of Ulceration existed.*

| ULCERATION.     | Simple Abrasion. |                      | Granular.       |                      | Both Varieties. |                      |
|-----------------|------------------|----------------------|-----------------|----------------------|-----------------|----------------------|
|                 | Actual Numbers.  | Proportion per cent. | Actual Numbers. | Proportion per cent. | Actual Numbers. | Proportion per cent. |
| Slight . . . .  | 31               | 25.6                 | 15              | 12.4                 | 46              | 38.                  |
| Moderate . . .  | 33               | 27.2                 | 26              | 21.2                 | 59              | 48.4                 |
| Extensive . . . | 9                | 7.4                  | 7               | 5.7                  | 16              | 13.1                 |
|                 | 73               | 60.2                 | 48              | 39.3                 | 121             | 99.5                 |

A further examination of the cases represented in the two preceding tables elicited two important facts.

1st. That in 25 out of the 46 cases in which the ulceration is stated to have been slight, more or less considerable induration or enlargement of the lips or neck of the womb was present.

2ndly. That in 9 out of 16 cases in which the ulceration was stated to have been considerable, there was no induration nor enlargement either of the cervix or os uteri.



The following table represents the further particulars of the above-mentioned 16 cases.

TABLE XI.

*Showing the Various Conditions of the Uterus associated with Extensive Ulceration of its Orifice.*

|                              | Simple Abrasion. | Granular. | Both Varieties. |
|------------------------------|------------------|-----------|-----------------|
| Uterus otherwise healthy     | 2                | 3         | 5               |
| Body of uterus large . . .   | 1                | 1         | 2               |
| Uterus lower than natural    | 2                | 0         | 2               |
| Do. large, cervix hard . . . | 2                | 0         | 2               |
| Do. healthy, but cervix hard | 1                | 2         | 3               |
| Do. do. but lips of os hard  | 1                | 1         | 2               |
|                              | —                | —         | —               |
|                              | 9                | 7         | 16              |

It seems, then, that while, on the one hand, very slight ulceration of the os uteri may coexist with induration of the cervix of the organ, very extensive ulceration of the os may, on the other hand, be compatible with an apparently healthy condition of the cervix; and that, consequently, ulceration of the mouth of the womb and induration of its cervix stand in no constant nor necessary relation to each other.

It would be possible, and perhaps not without some profit, to compare together the two classes of cases which we have been studying from some other points of view. But we have examined all their more important features, and each separate examination has seemed to me to lead to the same conclusion. More numerous cases would doubtless have cleared up some obscure questions,—would have imparted a greater exactness to some of our deductions; but I venture to think they would not have materially altered the results which the facts laid before you in this Lecture appear to warrant.

These results may be best summed up under the five following heads; and the order in which they are enumerated nearly corresponds with that in which the facts whence



they are deduced were successively brought under your notice.

1st. Uterine pain, menstrual disorder, and leucorrhoeal discharges,—the symptoms ordinarily attributed to ulceration of the os uteri,—are met with independently of that condition almost as often as in connection with it.

2nd. These symptoms are observed in both classes of cases with a vastly preponderating frequency at the time of the greatest vigour of the sexual functions, and no cause has so great a share in their production as the different incidents connected with the active exercise of the reproductive powers. But it does not appear that ulceration of the os uteri exerts any special influence, either in causing sterility or in inducing abortion.

3rd. While the symptoms are identical in character in the two classes of cases, they seem to present a slightly increased degree of intensity in those instances in which ulceration of the os uteri existed.

4th. In as far as could be ascertained by careful examination, four-fifths of the cases of either class presented appreciable changes in the condition of the uterus,—such as misplacement, enlargement, and hardening of its tissue, while frequently several of these conditions coexisted. An indurated or hypertrophied state of the cervix uteri was, however, more frequent in connection with ulceration of the os uteri than independently of that condition.

5th. The inference, however, to which the last-mentioned fact would seem to lead, as to the existence of some necessary relation,—such as that of cause and effect,—between ulceration of the os uteri and induration of its cervix, is in great measure negatived by two circumstances :—

1. The number of instances in which an indurated cervix coexisted with a healthy os uteri.

2. The fact that, while induration of the cervix was pre-



sent in 25 out of 46 cases in which the ulceration of the os was very slight, it was altogether absent in 9 out of 16 cases in which the ulceration was noted as having been very extensive.

These inferences sufficiently show that I do not subscribe to either the first or second of those three conclusions, one or other of which, it was stated at an early period of this Lecture, would probably be found to represent the truth of this matter; that I do not regard ulceration of the os uteri either as the general cause of the symptoms which have been attributed to it, or even as a general concomitant of them, and index of their degree and severity. It would, indeed, have simplified the study and the treatment of uterine disease very much to have found that a slight erosion of the mucous membrane of the least important part of the womb was the cause of four-fifths of those painful ailments to which the female sex is liable; but I will venture to add that it would have shown diseases of the womb to constitute a most marvellous exception to the ordinary rules of pathology.

If, then, there be no more here than elsewhere, any royal road to knowledge, it remains for us only to make out, as best we may, with what varied states of the general health, or of the sexual system, the various signs of uterine disease are connected; to learn how, in different cases, we may surely distinguish, or even shrewdly guess, their import. The task is tedious, perhaps, but it is the same as in all other departments of medical enquiry we have to encounter.



### LECTURE III.

Causes of uterine ailments very various—sometimes independent of local disease, as in the case of chlorosis, of hepatic disorder, of granular disease of the kidneys, of the gouty or rheumatic patient,—all illustrate the dependence of uterine disorder on constitutional disease. Ulceration of the os uteri, when present in such cases, of secondary importance; and equally so in many instances where disease really begins in the uterus itself, as in ailments succeeding to pregnancy, abortion, delivery, etc.

Sketch of the history of a patient in whom menorrhagia succeeds to delivery or to abortion; case in illustration of defective involution of the uterus, and its results. Enquiry as to the result of inflammation attacking the uterus under these circumstances; case in illustration,—reasons for believing the mischief in such cases to begin in the interior of the womb, confirmed by history of patient in whom uterine inflammation succeeded to gonorrhœa; extension of this hypothesis to explanation of other somewhat similar cases. Importance of affections of canal of cervix uteri believed to have been overrated, and why.

Ulceration of os uteri not absolutely unimportant; case illustrative of symptoms of its simplest form—characters which it presents—uncertainty as to nature of some of them—remarks on so-called Granular Metritis. Question of local treatment in some instances in which ulceration persists after subsidence of original ailment.

Explanation suggested of alleged cures of uterine ailment by local use of caustics—mischievous result, both to patient and practitioner, of the opinions on which their indiscriminate employment is founded. Cases considered in which the stronger caustics are alleged to be required; practice objected to, and why. Reference to exceptional cases of ulceration calling for local treatment; peculiarity in case of uterus modifies nature and mode of employment of local remedies.—Concluding observations.

MR. PRESIDENT,

SIR,—The task of to-day is a far more difficult one than was that of either of the two previous days; and in



my endeavor to fulfil it, I shall stand more than ever in need of your kind indulgence. Hitherto I have been engaged in the attempt to show what I believe to be the fallacies of certain opinions which come before us not only recommended by high authority, but also attractive from their simplicity, from the easy explanation that they profess to offer of very varied and very complex processes of disease, and from the uniformity of the treatment that they suggest as applicable alike to all.

It may not unnaturally be expected that before undertaking so invidious an office, I was prepared with some other solution of these different morbid phenomena equal to that which I reject in its simplicity and in the universality of its application, but claiming to rest on stronger grounds, and to be open to fewer objections.

Unfortunately I can put forward no such pretensions, for I believe that instead of the different symptoms which are supposed to depend on ulceration of the os uteri being produced by that or by any other single cause, they in reality arise from very various causes; that at one time they attend on general constitutional disorder, at another on some ailment of the sexual system, and that ailment by no means the same in every instance. If this be so, however, instead of the consideration of one pathological condition of the uterus and its possible consequences, we have to enquire into little less than uterine disorders in general, their causes and their symptoms,—an undertaking which would occupy not one Lecture, but several; and the preparation for which would be the study of a life-time.

All, then, which I can attempt will be to furnish a few illustrations of the subject, such as may serve, if to do no more, at least to show the direction that investigation should take in order to remove the difficulties by which it is surrounded.



A not infrequent instance of disorder of the uterine function, independent of ailment of the organ itself, is afforded us in the case of the chlorotic girl, in whom the menses scarcely show themselves for months together, while an abundant white discharge is often poured forth from the uterus, either constantly or with an ill-marked periodicity, and uterine and lumbar pains attend upon the symptoms. Remedies improve the general health, correct the morbid state of the circulating fluid, and step by step the local ailments improve too; the leucorrhœa subsides, the pain ceases, and all indications of uterine disorder disappear, although the womb itself has never been the object of special treatment.

Or, in another and usually a much older person, the liver performs its functions but imperfectly; constipation, headache, an icteroid tinge of the skin, mark its disorder: at length menstruation comes on with unusual profuseness, and the signs of hepatic disturbance disappear. This may occur but once, or it may occur several times; the slightest error in diet, the slightest neglect of the state of the bowels, or some cause too trivial to be discovered, may produce the same derangement of the function of the liver, which may again give rise to the same train of symptoms, and cease on the recurrence of a similar hæmorrhage. But nature's healing power is often ill-regulated, and erring in too little or too much; the regular periodicity of the menstrual function becomes deranged; many weeks pass without the appearance of the menses, and then they appear again and again with a frequency and profuseness which seriously impair the patient's health, which sometimes even threaten her life.

Or, again, the kidneys, from unsuspected disease, perform their duties incompletely, and the blood, imperfectly depu-



rated, its red particles diminished, its watery elements increased, pours forth at the return of each periodical congestion of the womb in larger quantities than when the patient was in health. Leucorrhœal discharges follow in the intervals of menstruation; pain is felt in the back; bearing down follows any exertion; the frequent micturition seems to indicate the sympathetic suffering of the bladder, while the loss of muscular tone, and the long persistence of congestion of the womb at every period, favor the actual prolapsus of the organ. The patient seems to be sinking under menorrhagia: she is really dying from the effects of granular degeneration of the kidneys, and consequent albuminuria.

Or, lastly, to take another illustration of the mode in which uterine symptoms depend on constitutional causes,\* let us notice how important a part the gouty and rheumatic diathesis sometimes plays in the production of uterine symptoms. A casual attack of cold is in some instances referred to as the occasion of the patient's illness, while in other cases the ailment comes on by degrees, and with no definite exciting cause. Menstruation begins to be more painful than was its wont, often more scanty; an unusual degree of constitutional disturbance attends each period; the pulse at those times is very frequent, the skin hot though perspiring, and lithates abound in the urine. In the intervals profuse leucorrhœal discharges take place; the pain, though less intense, is yet severe, and is aggravated by trifling causes, or without any obvious reason. The pain at one time is most severe in the back, at another is

\* The observations of Dr. Todd on this subject, in Section ix. of *Practical Remarks on Gout, Rheumatism, Fever, &c.* 8vo. London, 1843, and those of Dr. Rigby, in his work on *Dysmenorrhœa*, published in 1844, have more specially called attention to this subject.



referred to one or other iliac region, shooting down the legs, in the course of the crural nerve, or, like sciatica, affecting the back of the thighs ; while occasionally, in addition to these abiding discomforts, the patient is kept in bed for a day or two at a time by slight feverish attacks, accompanied by wandering pains in the limbs, though seldom attended by inflammation and swelling of any of the joints.

Cases of this kind are met with in all classes of society ; and wherever they occur they are chronic in their course and difficult of cure. Among the poor they do badly out of a hospital ; for rest, uniformity of temperature, and a suitable diet, can seldom be obtained, while they do but ill in a hospital, since the absence of regular occupation and of exercise cannot but be injurious, while the listlessness of mind which the patient's state and circumstances engender is favorable to hypochondriasis, and to the exaggeration of any ailment of the nervous system. The affection is one not unusual among young women who follow the occupation of book-folding, working, as they are compelled to do, in a heated, but at the same time in a damp atmosphere, and for the most part in ill-ventilated apartments. A very obstinate case of it came under my notice some time since in a young person who had been compelled, by lameness from birth, to lead a very sedentary life, and who had always suffered from vague rheumatic pains. And, not long since, a washerwoman, whose finger-joints were enlarged by chalk-stones, but in whom menstruation had already ceased, applied at the Out-Patient room of St. Bartholomew's Hospital on account of profuse leucorrhœa and rheumatic pains, which disappeared simultaneously under the use of colchicum and iodide of potassium.

The rich enjoy no immunity from this ailment. A lady, who had suffered severely from rheumatism in India some



twenty years before, experienced more or less of these symptoms ever since; and when I saw her, menstruation having ceased for more than a year, leucorrhœa still persisted, associated with abundant deposits of lithates in the urine, a tendency to eczema of the vulva, and most intense tenderness of the uterus, though that organ had already begun to undergo the atrophy of age. An unmarried lady, aged 35, who inherited gout from her father, displayed the symptoms just mentioned, with the exception of the cutaneous affection, most severely; and, in addition, suffered much from pain in the back and dysuria, excreting from time to time very large quantities of lithic acid crystals. Errors in diet, and all the accidents inseparable from mixing in society, render this ailment almost as unmanageable among the wealthy as it is among the poor, and the chances of relapse nearly as great. In either class of patients improvement in the general health is associated with amendment, though not with an equivalent amendment, in the uterine symptoms; while any exacerbation of suffering is accompanied by most abundant deposits of lithates in the urine, and by a specific gravity of that fluid as high as  $1030^{\circ}$  or  $1035^{\circ}$ .

That the muscular tissue of the uterus should, under these circumstances, be the seat of extreme pain is just what might be expected. The distinction, indeed, between rheumatic and neuralgic pain is not very clear; and many cases resembling those of irritable uterus, as described by the late Dr. Gooch with all that graphic skill of which he was so great a master, may be referred to this category. The treatment which affords relief is just such as the state of the urine and the assumed rheumatic character of the symptoms would seem to indicate. Colchicum, iodide of potassium, diaphoretics and sedatives, alkalies and vegetable bitters, are the remedies on which we must rely to obtain



amendment, and by which, under favorable circumstances, we may even accomplish a cure.

Now it scarcely need be observed that, in the different classes of cases glanced at, disease of the womb is not the cause of the symptoms, nor can it be by medication of that organ that we can hope to cure the patient. I have known a lady in whom amenorrhœa and menorrhagia alternated, associated with obstinate functional disorder of the liver, flood to death from a uterus which was small and, as far as careful examination during life could ascertain, quite healthy. Pain and exquisite tenderness of the uterus existed in another case just referred to, together with abundant leucorrhœal discharge, although the menstrual function had not only ceased, but the uterus had begun to undergo the atrophy of age. True it is, that a uterus from which hæmorrhage takes place more frequently and more abundantly than natural, may be found larger and heavier than it will be weeks afterwards, when treatment has stanchèd the bleeding or reduced its occurrence to the proper times, and confined its quantity within the natural limits. It is also true that a limited abrasion of the os uteri is now and then present in some of these cases, but it is neither considerable in extent nor uniform in its presence; it exists one day, and is not to be discovered a week afterwards; and then again it reappears, once more to vanish. But what of that? The dyspeptic patient has a congested palate, or enlarged tonsils, or even aphthous ulcerations of the mucous membrane of the mouth; and, as the extremity of the digestive tube sympathises with the disorders of its important parts, so does the orifice of the womb often afford an index to the condition of its interior. With the restored health, the swollen tonsils or the soreness of the mouth disappear; and so, when the uterine congestion subsides, its orifice resumes a natural aspect. The abrasion of the os in these



cases is indeed very slight, much slighter than we shall find it to be in other instances in which the cause of the symptoms is seated in the sexual organs themselves; but, if I do not mistake, the explanation just suggested of the import of ulceration will be found to be often applicable even to them.

The tables to which reference was made in the last Lecture showed that, in a very large proportion of cases,—between 40 and 50 per cent.—marriage, pregnancy, abortion, or delivery, was referred to as the exciting cause of the symptoms from which the patients suffered; while these symptoms were just of that kind which are often attributed to ulceration of the os uteri.

According to the opinion of some observers, these causes act by producing inflammation of the cervix uteri, and consequent ulceration of its orifice, of which occurrences all the different phenomena we have noticed are the direct or indirect results. Others, however,—and I confess myself to be of that number,—demur to this explanation, and believe that these cases not only allow, but require, a different interpretation. We will select for examination one of the most frequent, and at the same time of the simplest kind. A woman, after delivery, leaves her bed too soon, or makes some injudicious exertion at a time when the uterus is still heavy, its vessels are still large, and the process of involution of its tissue is still incomplete, while the persistence of some lochial discharge shows that that exfoliation of the mucous membrane of its cavity which is repeated again and again after parturition has not come to an end. Perhaps no striking ill effect is produced at the time, but blood still continues to flow through vessels which, under other circumstances, would long since have ceased to convey it, and whose collapsed walls, undergoing the same fatty degeneration as the rest of the old uterine tissue, would have been in course of re-



moval. The lochial discharge, indeed, persists, but the patient experiences no other inconvenience until the lapse of about a month after her delivery. Then, however, the ovaries, in obedience to the law of their periodic activity, make a slight effort to resume their wonted function,—an effort which, in the healthy subject, is just indicated, and no more. But, under the less favorable circumstances in which this woman has placed herself, the undue congestion of her sexual organs that before existed becomes now raised to a point at which hæmorrhage breaks out from the interior of her womb. This hæmorrhage lasts for some days and then subsides, but abundant secretion from the mucous membrane still continues; and before long,—probably under the influence of a return of ovarian excitement,—a fresh outbreak of hæmorrhage occurs, and then another, until, by the frequent return of bleeding, and by the profuse secretion from the mucous membrane in the intervals, the blood becomes impoverished and the health enfeebled. If we examine such a patient, we shall probably find her uterus lower down than natural, its size and weight increased, its orifice open, its cervix short, and its tissue soft, while the epithelium of the os may or may not be somewhat abraded. Whence, now, in this case comes the hæmorrhage? whence the abundant leucorrhœa? what importance is to be attached to the abrasion of the os uteri when it is present? The discharges are doubtless furnished in great measure from the uterine cavity, within which all the important physiological processes of pregnancy, labor, and its consequences have been recently transacted; in part, perhaps, from the whole tract of the Fallopian tubes, which may be found, at an ordinary menstrual period, distended to double or treble their usual calibre by a thick mucus stained by admixture of blood to a rose colour, or even to a deeper tint. The lining membrane of the cervix uteri doubtless participates in the general



congestion ; its mucous crypts probably pour out their secretion with more than usual abundance, and thus add to the leucorrhœa ; but no one can suppose that, in such a case as this, the source of the symptoms is to be found in the neck of the womb, or that the absence of epithelium for a few lines around its orifice is here a matter of the slightest pathological importance.

The same occurrence may follow after abortion, and happens, indeed, more frequently than after delivery at the full period, since the necessity for care is less apparent. The symptoms which attend it are the same, and under their persistence the involution of the uterus may for weeks be completely arrested.

A married woman, the mother of five children, and who had miscarried three times, but not successively, was received into St. Bartholomew's Hospital on account of symptoms which she had experienced since a miscarriage at the third month six weeks previously. She suffered from a constant discharge almost always tinged with blood, and sometimes from profuse hæmorrhage. She complained of great pain at the lower part of her back and of her abdomen, and of a constant bearing-down sensation, which was much aggravated on any attempt at exertion, or effort at defæcation ; her countenance was pale, and expressive of pain, and her pulse was feeble. On examination the uterus was found low down, retroverted, its orifice looking directly forwards, and about two inches from the vulva ; its body and fundus enlarged, so as to form a globular tumor, about the size of a small apple, the walls of which were elastic. The anterior lip of the uterus was thin and small, the posterior somewhat thicker, and about half an inch longer. The os uteri was open, and the finger could be passed for a short distance without occasioning pain. The uterine sound was introduced with the concavity di-



rected backwards: on turning it round, the tumor before mentioned completely disappeared, the sound passing to the extent of  $5\frac{3}{4}$  inches, showing the uterus to be three inches larger than natural.

Rest, tonics, and the cold douche to the uterus, arrested the hæmorrhage, greatly checked the discharge, and improved the patient's health. The uterus, however, remained of about the same dimensions at the end of a fortnight, when the outbreak of small-pox in the ward necessitated the woman's discharge from the hospital. I saw her again once six weeks afterwards, and the uterus was greatly diminished in size; but I had not then the opportunity of ascertaining its exact dimensions by means of the uterine sound. Other cases of a similar kind have at different times come under my notice, but I do not remember any in which the uterus remained of so large a size as in the instance just related.

In the above-mentioned instance, and in many others of a similar kind, there is no evidence of any other morbid condition than a mere deficient involution of the uterus.\*

It must, however, be at once apparent that such a state is one in which processes akin to inflammation will be very likely to supervene, and to aggravate the patient's condition; while, even should that not be the case, the law which connects hypertrophy of an organ with long-continued congestion of its vessels will, at any rate, not meet with an exception in the case of the uterus. No organ of the body presents naturally conditions so favorable to the occurrence of hypertrophy as the uterus, since no where else is there the same store of formative material only awaiting some stimulus to excite it to development. The presence of an impregnated

\* See, with reference to this subject, a short but very interesting paper, by Professor Simpson, on Morbid Deficiency and Morbid Excess in the Involution of the Uterus after Delivery, in the Monthly Journal for 1852.



ovum in its cavity is the appropriate stimulus which awakens to the full its dormant vital energies. But I need not mention how the development of an extra-uterine ovum, the formation of a polypus in the cavity of the womb, the growth of a fibrous tumor in its wall, even the cancerous disease which destroys its substance, will also call those energies into activity, and cause the uterus to grow to dimensions far exceeding those which it naturally presents. It may, indeed, be stated that excitement of the uterus of almost any kind during the period of sexual activity tends to increase its size: and further, that this increase of size will be marked in proportion as the stimulus acts upon the cavity of the organ, and not simply upon its cervix. How different is the amount of uterine enlargement produced by a small fibrous tumor imbedded in its walls near to its cavity, from that which accompanies even a large cancerous growth from its cervix! Enlargement of the neck of the womb may, probably generally does, accompany enlargement of its body; but that the latter is the consequence of the former appears to me to be in the majority of instances not merely not proven, but even opposed to probability.

But it may be asked, what does inflammation do if it attacks the uterus in these cases? If this question be put as to the intimate nature of the changes which it works in the uterine tissue, I must confess that I do not know, and may add that, to the best of my knowledge, no one competent to attempt the investigation has applied himself to the elucidation of this so difficult problem. If, however, the enquiry be limited to those obvious results apparent to the ordinary observer, I think I may say that it produces pain of a severer kind than is experienced in the other cases;—pain presenting somewhat of a paroxysmal character, and sometimes even being excruciating from its



intensity ; while even in its absence there is extreme tenderness of the uterus, with great heat of the vagina, and usually a very abundant purulent leucorrhœa, often, though by no means invariably, tinged with blood. Moreover, these local symptoms are associated with more or less considerable constitutional disturbance, while on their subsidence, the uterine tissue, as far as its state can be ascertained, is felt to be harder in texture than before ; and lastly, these symptoms, when once they have occurred, are apt to return at uncertain intervals during a period of many years, presenting on each occasion the same characters, amenable to the same treatment, but in spite of it retaining the same disposition to recur over and over again.

In September, 1851, a married woman, aged 41, was admitted into St. Bartholomew's Hospital, and told the following history of her ailments :—Having married at sixteen, at which time the menstrual discharge was scanty, and irregular in its return, she at once became pregnant, but miscarried at the third month. A second pregnancy terminated at the full period after a lingering labor of two days and a half duration, in the eighteenth year of her age ; and a third pregnancy soon afterwards likewise terminated prematurely at the fourth month. Her symptoms dated from the time of her lingering labour, and consisted of leucorrhœal discharge, sometimes very copious, occasionally also very offensive ; constant sense of discomfort in the uterine region, with occasional sharp stabbing pain, chiefly referred to the right groin, and always aggravated at a menstrual period ; while the menstrual discharge, which for years had been gradually increasing in quantity, and was now extremely profuse, was always succeeded by temporary relief to the patient's sufferings. The pain and the hæmorrhage together had worn down her health ; her countenance was anxious, and her pulse



128 and feeble. The uterus was found to be rather low down, but not much enlarged, though very tender; the cervix uteri was indurated, somewhat elongated, and very painful; and the os uteri, which was small and circular, presented no trace of abrasion, either affecting its lips or extending into the canal of the cervix, though the congestion of that part was very marked. Rest, frequent local leeching, and sedatives, relieved the patient's sufferings, improved diet restored her strength, and when she left the Hospital, in November, she had lost the sense of pain and bearing down; there was but little leucorrhœa, the tenderness of the uterus was much diminished, and the congestion of its orifice had entirely disappeared. It may be added that once during the course of her treatment superficial abrasion of the os uteri showed itself, but disappeared of its own accord in a few days. Great as the relief was which this poor woman had obtained, I did not anticipate that she would continue free from suffering if she returned home to bear a part in the duties, and to submit to the hardships, which are inseparable from poverty. Accordingly, in less than twelve months, she returned to the Hospital, presenting the same symptoms as before, and submitted to a similar plan of treatment with the like result. The os uteri on this occasion also presented no abrasion, though frequent examinations were made with the speculum to ascertain this fact. The patient remained this time somewhat longer than before in the Hospital, and took small doses of the bichloride of mercury for several weeks, though never in such quantities as to affect the mouth. For six months after her discharge she continued almost free from suffering; but in September, 1853, her symptoms began to return: menstruation, though not so profuse as before, became once more very painful; and for some days before her admission into the Hospital on



October 20, she had paroxysms of such intense severity that she rolled about the bed in uncontrollable agony; which large doses of sedatives were unable to subdue. On her admission there was the same intense congestion of the os uteri as on former occasions, with a very abundant, highly offensive, purulent discharge, slightly tinged with blood from its interior; the womb itself being low down, somewhat larger than natural, and the cervix large, hard, swollen, and intensely tender; but no trace of abrasion of the os was perceptible. The application of six leeches to the uterus was followed by bleeding so profuse as to cause syncope; but for several days subsequently the patient continued perfectly free from pain, and though it afterwards returned, yet it never again attained the same degree of intensity. She remained in the Hospital for six weeks; during which time local leeching was occasionally resorted to, small doses of the bichloride of mercury were again given, together with the syrup of the iodide of iron; and under this treatment improvement once more took place, and the neck of the womb at the time of the patient's discharge was at least a third smaller than it had been at her admission.

In this instance we observe symptoms of the greatest severity recurring again and again without ulceration of the os uteri, or of the canal of the cervix (for the slight abrasion apparent once, and then vanishing spontaneously in the course of a few days, cannot be regarded as of importance); and this was observed during three distinct attacks of illness, spread over a period of three years. I apprehend that one does not err in connecting the patient's illness with some inflammatory affection of the mucous membrane of her uterus, which supervened upon her delivery, and which, during the many subsequent years, was every now and then lighted up afresh by causes which in the household of the



poor are not far to seek. In this instance it is true that the most marked enlargement of the uterus was perceptible in the neck, not in the body of the womb; but I doubt whether a difference from other cases in this respect is a matter of so much importance as at first it may appear. When a woman has frequently given birth to children at the full period, the *portio vaginalis* of the *cervix uteri*, or in other words that portion of the neck of the womb which projects into the vagina, becomes greatly shortened, sometimes almost completely disappears, while it commonly remains of considerable length in the case of women who have only aborted, or at most have given birth only to one or two children at the full period. The deficient involution of the uterus after a miscarriage, will in such cases be shared in its measure by the *cervix uteri*, and by as much of the *portio vaginalis* as exists; and to this circumstance, rather than to any essential difference, I am disposed, in a large proportion of instances, to attribute the difference in size of the *portio vaginalis*. But admitting even that this explanation is not conclusive, and that the condition of the *cervix* is of more importance than I have just suggested, the fact still remains that all the symptoms of ulceration of the *os uteri*, and even that enlargement of the *cervix* which is said to depend upon it, were observed during a period of many months, and observed to be unconnected with any such state during the whole of that period.

It would not be difficult to multiply cases of this description if time allowed; but, in further illustration of the subject, I will just refer to one other of a kindred nature. In some few, happily very few cases, the inflammation, which in gonorrhoea is usually limited to the vagina, not only attacks the mucous membrane of the bladder, but affects the lining of the uterus also, and even extends to the peritoneum, sometimes endangering the patient's life. But



without causing those most formidable results, acute inflammation of the vagina sometimes extends beyond its original seat, and gives rise to symptoms such as we are now considering. A patient, aged thirty-five, was admitted into St. Bartholomew's Hospital, complaining of dysuria and frequent micturition, of painful and profuse menstruation, and of leucorrhœal discharge,—symptoms which she referred to a somewhat severe attack of gonorrhœa three months before. Her uterus was found much enlarged, anteverted, and fixed in its unnatural position, while its tissue generally was much harder than natural, and the margins of the os uteri, though free from the slightest trace of abrasion, presented a very marked congestion, and discharge was poured out from the interior abundantly. It is here, I think, no unfair assumption to suppose that all these symptoms, from which the patient had never suffered previous to the gonorrhœa, were excited by it, that that had affected the interior of the uterus, and had also bound down the organ in its unnatural position by adhesions consequent on peritoneal inflammation. At any rate, here was no ulceration of the orifice of the womb, and yet here were all the symptoms which are usually described as indicative of its presence.

It is well, also, to bear in mind, with reference to cases of this and of a similar kind, that the assumption of inflammation affecting the body of the womb is not sufficiently negatived by the absence in the patient's history of any mention of symptoms so grave as we might be inclined to imagine, that inflammation of the more important parts of this viscus must of necessity produce. In making examinations after death we constantly find adhesions between the uterus and rectum, or matting together of the parts within the fold of one or other broad ligament, although the patient during her lifetime may never have



mentioned any attack of uterine or abdominal inflammation. Not infrequently, too, we find the uterus firmly fixed in the pelvis, with most obvious thickening of the broad ligament, or of the pelvic cellular tissue ; while yet the closest enquiry will fail to elicit anything more definite than the statement that a bad confinement or a bad miscarriage some time before was succeeded by a painful and tedious convalescence.

Other cases might be mentioned which, I believe, admit of the same interpretation,—cases where the symptoms have succeeded to marriage, or where they have followed suppressed menstruation ; nor would I propose a different explanation of those instances in which uterine misplacements, as anteflexion or retroflexion, are succeeded by signs of sexual disorder such as we have been considering, or where they have been associated with misplacement of the ovary. In all of these instances it is, I believe, the interior of the uterine cavity which suffers first—it is thence that the hæmorrhages are derived, thence that the greater part of the leucorrhœal discharge is furnished ; and it is the irritation of that part of the organ in which its most important functions are transacted, which leads to the increase of its size so apparent in the great proportion of cases of long-continued uterine ailment. That the ovaries suffer too, constant observation proves ; and facts illustrative of the affection of the neck of the womb are also perpetually coming under our notice ; but that, as a general rule, inflammation of the canal of the cervix is the first step in the disease, and ulceration of the os uteri the second ; and that these two conditions are the two factors producing all the symptoms we have been studying, is an assumption which I cannot but regard as unsupported by facts, and as opposed to any fair inference from what anatomy, physiology, or analogical reasoning teach us.



There are, however, some writers who, while they concede the comparatively small importance of ulceration of the os uteri, yet appear to me (and I trust that these my doubts are always expressed with that respect and deference for the opinions of others which I sincerely entertain) scarcely to attach due weight to the ailments of the uterine cavity. The elaborate secretory apparatus of the cervix uteri, so minutely described and so beautifully delineated by Dr. Hassall and Dr. Tyler Smith, seems indeed to furnish an ample source for almost any conceivable amount of discharge. But it must be remembered that, like many other secreting apparatuses, this is by no means in constant activity. Its full action seems to be called forth only during pregnancy, and my own observation does not by any means confirm the statement, that in the intervals between the menstrual periods a mucous plug is secreted, hermetically closing, as it were, the canal of the cervix; for I have observed any such secretion, to say the least, quite as often absent as present in uteri which I have examined. Moreover, at each menstrual period it is the mucous membrane of the body of the uterus which is congested, and from which the mucus and epithelium, as far as we can ascertain, are derived, which form at its commencement and end the greater part of the menstrual flux, and constitute the white discharge that not infrequently continues in the healthy subject for twelve or twenty-four hours after the cessation of all admixture of blood. Nor must it be forgotten that the mucous membrane of the uterine cavity is furnished with appropriate glands to furnish such secretion almost infinite in number, curiously convoluted to increase the extent of their surface, and susceptible of a peculiar hypertrophy more remarkable than any which is observed to take place in the glands of the cervix. Observation also not infrequently discovers the



membrane of the uterine cavity abundantly moistened with secretion ; while cases are now and then met with in which inflammation having attacked it, it pours out abundance of pus.

Such a case some time since came to my knowledge ; and the uterus, removed from the patient after death, is now in the Museum of St. Bartholomew's Hospital. A fibrous tumor growing in the substance of the posterior uterine wall occasioned an unusual amount of irritation of the pelvic viscera, the cause of which was not detected during the patient's life. After death, this tumor, of the size of a small apple, was seen to be most intensely injected, while the mucous membrane of the uterine cavity, into which, however, the tumor did not at all project, was of the brightest possible rose tint, and looked like red velvet. Pus had been poured out from the inflamed mucous membrane, and collecting within the uterine cavity all the more readily from the neck of the womb having become bent upon itself so as to prevent the ready escape of fluids from the interior, had distended it, as may be seen in the specimen, to the size of a hen's egg.

It is true, indeed, that our means of investigation do not enable us, during the lifetime of our patients, to ascertain beyond a doubt whether a discharge poured out from the os uteri is furnished from the cervical canal, or from higher up in the body of the uterus, or from both. Probability appears to me to incline to its being chiefly derived from the uterine cavity ; though I do not doubt but that it is often furnished in a measure by the cervix also. The weight of proof seems to me to lie upon those who see in leucorrhœa only a hypersecretion from the glandular apparatus of the cervix uteri. Moreover, it is not only the excessive mucous or purulent discharge which in these cases attracts our notice and calls for our interference, but



menstrual disorder, abdominal and pelvic pain, uterine enlargement,—all that category of symptoms, in short, which have been so often dwelt on in these Lectures, that to refer to them again, even in the briefest manner, seems an almost needless tediousness.

But it may not unnaturally be asked, whether I then believe that the condition of so-called ulceration of the os uteri is one of absolutely no importance, adding nothing to a patient's sufferings, in no respect protracting her illness, calling for no treatment? I do not believe this; though at the same time disease of the os uteri is so almost invariably associated with other evident ailments of the organ as to render it very difficult to distinguish accurately one set of symptoms from the other. That the existence of an abraded condition of the os uteri is capable of producing under some circumstances very considerable discomfort, is, however, certain; and is proved by cases such as the following:—

A woman, twenty-seven years of age, who had lived in sterile marriage with two husbands, was admitted into St. Bartholomew's Hospital on account of dysmenorrhœa. The canal of the cervix uteri was extremely narrow; and, under the impression that the case was one of those comparatively rare instances of menstruation rendered difficult by mechanical causes, sponge tents were introduced to dilate the contracted cervix. The presence of the sponge tent, though causing no other inconvenience, occasioned a very distressing sense of itching referred to the uterus: on the withdrawal of the tent, the edges of the os uteri and the cervical canal, as far as it could be seen, were observed to be very red, and quite denuded of their epithelium, while a rather abundant glairy secretion was poured out from their surface. So long as the abrasion continued, and it did not disappear till three days after the removal of the sponge tent, the sense



of itching and the discharge continued, though with gradually diminishing severity. Causes so purely local in their action are of course very rare; but symptoms such as were here produced by mechanical irritation are sometimes observed in other cases in which disease, as far as can be ascertained, is confined to the os uteri.

I will but just allude here, by way of illustration, to cases in which the earliest stage of uterine cancer has been attended with some vague sense of itching, burning, or smarting, referred to the mouth of the womb: to do more than merely mention them would take us away from our more immediate subjects. But, independent of such cases, it happens now and then that without any other, or at any rate with very little other, appreciable evidence of uterine disease, one observes the orifice of the womb present a red, coarsely granular surface, from which a glairy secretion is poured forth abundantly. This surface is somewhat tender to the touch, and bleeds so readily that even the most careful examination with the speculum causes the blood to flow. Much more rarely I have also seen what looked more like an ordinary ulcer with sharply cut edges; its surface apparently a little depressed below the adjacent tissue, partially covered by a thin layer of dirty yellowish lymph, but red, and bleeding on its removal. Both of these conditions I have usually noticed in women whose previous history contained mention of some syphilitic infection only a few months previously; though I should hesitate to class the appearances among secondary syphilitic symptoms.

I apprehend that the marked granular appearance is due to hypertrophy of those papillæ covering the surface of the os uteri, for our acquaintance with which we are indebted to the late Dr. Franz Kilian of Mayence; whose early death it may be permitted me here to deplore, since it was as much



too soon for science as for his own fair fame ; while unanswered problems remind one painfully every day of the loss of him who had proved himself so well fitted to attempt their solution. In these cases the analogy between the state of the os uteri and that granular condition of the palpebral conjunctiva observed in purulent ophthalmia, would seem to be complete ; and no one who has observed the abundant secretion poured out from between the lids of the infant affected by that disease, need wonder at the amount of discharge furnished from so comparatively small a surface as the os uteri. That sometimes there is an actual destruction of substance over and above the mere abrasion of epithelium, can also not be doubted ; but I believe that this is not generally the case. With reference to the morbid states of the os uteri, however, there is much need of careful microscopic research. We hear of phlebitis of its minute vessels, of herpes and eruptive diseases affecting its surface ; terms expressive sometimes of a theory, at other times descriptive of the character of an appearance which presented itself to the observer ; but such phraseology cannot at present be accepted as a statement of any well-ascertained pathological fact.

One of these conditions I must notice, because it is met with independent of other uterine disease, and presents characters so marked as to have attracted the notice of Boivin and Dugès, and to have received from them a distinct name as granular metritis. Under this not very appropriate name, two different conditions at least have been described. In one, numerous small, rather hard, miliary prominences beset both lips of the os uteri, usually, but not invariably, destitute of epithelium, giving exit when pricked to a small drop of mucus or muco-pus, and being probably hypertrophied follicles. The other condition is



produced by a number of small, soft, red papulæ, similar in size to those just mentioned, very vascular, bleeding easily, but solid, and probably identical in structure with the granulations ascertained by M. Robin to be small hypertrophied points of mucous membrane ; and which, occasionally developed in the uterine cavity, have been the object of a somewhat over-active treatment on the part of M. Récamier and some other practitioners, who, believing them to produce obstinate leucorrhœa, menstrual irregularity, and other ills, scrape out the uterine cavity with a blunt instrument, and find in the blood-stained débris of the mucous membrane the proofs of their diagnostic skill, and the trophies of their chirurgical dexterity. These states of the os uteri, however, though by no means common, are unquestionably attended with leucorrhœal discharge, often very profuse, with a tendency to slight bleeding from their surface ; while they produce uncomfortable sensations of itching, smarting, and the like, not amounting, indeed, to actual pain, but quite sufficient to keep alive all the patient's anxiety lest they should be the portent of some worse ailment to follow.

Affections such as these have seemed to call for local treatment, and when resorted to, I have seen them yield under it, and the patient return rapidly to health. These cases, however, are, I believe, exceptional ones, and, in the majority of instances, the morbid state of the os uteri is but a part of the general disease which has attacked the organ ; the ulceration persisting, now larger, now smaller, presenting different aspects, not as the cause of the symptoms, but with them dependent on, and expressive of, the influence of another and a common cause. What causes these may be I have already stated. But even in such cases it has seemed to me that the ulceration has itself sometimes outlasted the graver evils under which it arose, and has remained, causing discomfort, leucorrhœa, and



slight sanguineous discharge, and keeping up a perpetual disposition to uterine congestion, which but for it would subside. That under such circumstances a tendency to slow increase in the size of the cervix uteri should exist, is surely no matter for wonder, since the neck of the womb is more exposed to irritation of every kind than any other part of the organ; while, slight though the morbid state may be, it yet is sufficient to produce some increased afflux of blood thither, whence its return is more difficult than from any other part; and we have already seen how great is the tendency in the uterine tissue under any stimulus, either natural or morbid, to some degree of that hypertrophy which, during thirty years of life, represents its highest physiological condition.

It cannot be necessary that I should say a word to point out the difference between these opinions and those which I have ventured to criticize, and according to which inflammation of the cervix and ulceration of the os uteri are the first and the last in uterine pathology. It may, however, be asked, how is it that such successful results have followed a course of treatment directed exclusively to the cure of the ulceration,—that the application of caustics to the os uteri has been succeeded by the restoration of the patient to health? Now, I think it should be borne in mind that, in connection with this mode of treatment, various other measures are of necessity adopted eminently calculated to relieve many of the slighter forms of uterine ailment. The married woman is for a time taken from her husband's bed; the severe exertion to which either a sense of duty urged, or a love of pleasure prompted her, is discontinued; while rest in the recumbent posture places the uterus and the pelvic viscera in just that position in which the return of blood from them encounters the smallest difficulties. The condition of the bowels, probably before habitually neglected,



is now carefully regulated, and the patient's diet, bland, nutritious, and unstimulating, often differs widely from that with which, while all her functions were overtaxed, she vainly strove to tempt her failing appetite. Add to this, that the occurrence of the menstrual period is carefully watched for; that all precautions are then redoubled, and each symptom of disorder, such as on former occasions had been borne uncomplainingly, though often not without much suffering, is at once encountered by its appropriate remedy; while generally returning convalescence is met in the higher classes of society by a quiet visit to the country, or to some watering-place, in pursuit not of gaiety, but of health; and we have assembled just those conditions best fitted to remove three out of four of the disorders to which the sexual system of woman is subject. But the very simplicity of these measures is a bar to their adoption; for you will bear me out in saying, that the rules which common sense cannot but approve, but which seem to require nothing more than common sense to suggest them, are just those to which our patients least readily submit. The case is altered, however, when these same rules are laid down not as the means of cure themselves, but only as conditions indispensable to the success of that cauterization which, repeated once or oftener in the week, is the great remedy for the ulceration that the doctor has discovered, and which he assures his patient, and with the most perfect good faith, produces all the symptoms from which she suffers. The caustic used in these milder cases is the nitrate of silver; the surface to which it is applied is covered by a thin layer of albuminous secretion, which it is not easy to remove completely, and which serves greatly to diminish the power of the agent, while the slightly stimulating action that it nevertheless exerts seldom does harm, sometimes, I believe, does real good, though no more than might have been equally attained



by vaginal injections, or other similar remedies, which the patient might have employed without the intervention of her medical attendant.

There is no more difficult problem in therapeutical enquiry than how to distinguish between the results which really depend on our remedies, and such as only casually follow their employment. The patient had symptoms of uterine ailment; the orifice of her womb was abraded, caustic was applied, and the healing of the abrasion and the subsidence of the uterine symptoms took place simultaneously. From these facts a formula is framed, which is applied to the management of uterine ailments generally,—to three fourths or four-fifths of the diseases of the female sex that come under the care of the practitioner. So far, indeed, are these views sometimes carried, that even the utter absence of all signs of uterine disease is not always thought a sufficient reason for doubting its existence; but examination with the speculum is made, and the detection of some slight speck of abrasion of the os uteri is thought to furnish an explanation of chronic ailments of the most dissimilar kinds; and a panacea for those ills is sought in the use of the caustic. There are those here who can bear me out in the assurance that this is no overcharged statement; but the annals of medicine are full of instances of the extent to which preconceived ideas modify the experience of men whose honesty is as much above suspicion as their ability is beyond question; and no Fellow of this College will doubt the integrity or the talent of either of the would-be combatants who, some hundred and twenty years ago, drew their swords in Cheapside to settle the proper treatment of the small-pox.

It would be a matter of comparatively little moment whether the views which I believe to be erroneous really were so or not, if they led to nothing more than an over-



estimate, on the part of some practitioners, of the value of a certain kind of therapeutical proceeding. But their evil, if they be erroneous, does not cease here ; they exert an injurious influence, both on the patient and the practitioner. No one engaged in the practice of medicine but must have been often struck with the important part which the sexual system plays, unconsciously to herself, in almost all the diseases of woman. The frequent sadness and low spirits in celibacy, the grief, the almost shame of childless marriage, depend on causes more deeply seated than reason can dispel, and are familiar to us as often stamping a peculiar character on the diseases of our patients. To the same cause is due the nervous susceptibility which women often manifest on the least symptom of ailment affecting their uterine system ; to control which, and to prevent the disposition to unconscious exaggeration of their symptoms, becomes often one of our most important, and at the same time one of our least easy, duties. Any course of proceeding, then, which, without the most urgent and absolute necessity, directs the patient's attention in the slightest ailments painfully and frequently to her uterine system, is in the highest degree objectionable. The patient recovers from her illness, but with the impression that all the sensations that for weeks or months before she had experienced were exclusively due to the local disease which had called for local remedies. On the first return of any symptoms resembling them, all her apprehensions are revived, lest the same painful investigation, the same distressing manipulations as before, should be again required. The fact that it needs but to watch the beatings of one's heart for a few minutes in order notably to quicken its pulsations, and to become painfully conscious of its action, is one of the most familiar illustrations of that influence of attention upon the functions of the body of which, both in health and in



disease, we see so many instances. Digestion, watched through its different stages with the not unnatural anxiety of a dyspeptic invalid, often leaves him a hypochondriac, unable to take other than certain articles of diet, and those cooked in some peculiar fashion ; while in many instances, neither in the food itself, nor in its mode of preparation, is there any reason to be found why that alone should be tolerated by his fastidious stomach. More or less discomfort,—often, indeed, much positive pain,—attends in the great majority of women upon the performance of the menstrual function, precedes or follows it. These pains are now thought to be of more importance than before ; their occurrence is watched for, the suffering of one month is weighed against that of the month before, as the woman thinks she finds in its increase or diminution grounds for hope or for apprehension. But the sensations thus attended to increase in intensity and in persistence ; the slight ailment which, but for the coming evil that it is supposed to portend, would in a few days be forgotten, is noted with anxious vigilance ; and the more it is observed, the more it seems to grow ; she fears she never will be well again, and at length makes up her mind once more to go through the same treatment as before relieved her, though it brought to her the painful revelation of the grave cause on which her sufferings, once thought so little of, in reality depended. Such persons among the poor come to our hospitals ; and on questioning them as to their ailments, they at once, and without waiting to describe their symptoms, say that they are suffering from ulceration of the womb ; though on examination one finds no trace of it, or at most a little redness of the edges of the os uteri, or it may be even that slight abrasion which I trust that I have shown to be as trivial in importance as it is frequent in occurrence. But though they have no



serious disease, they are not the less, or perhaps one might say all the more, real sufferers, and sufferers most difficult to cure. The treatment they perhaps are once more subjected to serves but to confirm the morbid habit of mind which has been gradually increasing upon them, and destroying both their present happiness and their capacity for it in future years. They are the victims, I believe, not of the want of honest purpose, or of high motive in those who practise our art, but of an erroneous opinion.

This erroneous opinion, however, reacts injuriously upon the practitioner himself. He unlearns what physiology might teach him of the uterus and its functions, and sees in all the varied manifestations of disorder the expression of one fact, and of one alone; namely, the existence of ulceration of the womb, and its reaction first on the uterine system, then on the general health. For him, indeed, there is little more to learn in uterine pathology; for when once a case has been ascertained not to be one of fibrous tumor, polypus, or cancer, then ulceration of the os uteri is the almost invariable cause to which the symptoms are referred, and the cure of this ulceration is the one grand object at which he endeavors. All the evils inseparable from the practice of a specialty are thus aggravated, and the natural tendency of such practice to subside into routine, or to degenerate into empiricism (I use the word in no invidious sense) becomes almost unavoidable.

There was a time in a neighbouring country, and not very long since, when the clue to the understanding of all diseases, the essential cause on which they depended, was supposed to be Gastro-Enteritis. It was conceived to be the primary pathological condition, or proximate cause of fevers, to play a most important part in the disorders of the cerebral and respiratory systems; and all that ingenious argument could do was done by M. Broussais to support



his new doctrines. For years France was divided into two schools,—the supporters and the opponents of M. Broussais' theories; and though truth was elicited by the contest, yet medical science advanced during the time much more slowly than, but for these divisions, it doubtless would have done. In the same way, I believe that the progress of uterine pathology has been retarded by the disputes about ulceration of the os uteri; for while one party has denied its very existence, and another has exaggerated its importance, both have allowed numerous important questions to pass without even an attempt at a reply.

But though it is my conviction that, in the great majority of instances in which the nitrate of silver is applied to the os uteri, the proceeding is simply superfluous, it yet would not be right to leave unnoticed other cases in which the neck of the womb being more or less enlarged, stronger agents are employed. On these occasions, the caustic potash is generally used, and by some with the view of destroying outright a certain portion of the enlarged cervix, by others with the intention of getting rid of the enlargement by means of the inflammation which it sets up in the uterine tissue. With whichever object resorted to, this proceeding is confessedly devoid neither of suffering nor of danger. If the caustic be introduced, as is usually done, within the cervical canal, it is allowed that the pain produced, and which sometimes lasts for two or three days, is very intense, causing nausea or sickness, and sometimes even syncope, or occasioning extreme depression, prostrating a patient so completely as to render her unable to quit her bed or sofa for several days. Thus much for the present effect of this remedy, for which its strongest advocates can scarcely lay claim to such an epithet as *jucunde*. But it does not fare much better with it as far as *cito* is con-



cerned. The application of the potassa fusa so as to produce an eschar implies a subsequent course of treatment with frequent applications of the nitrate of silver for a period of about forty days, at the end of which time, the action of the remedy being supposed to be exhausted, unless the patient is cured, it will be necessary to repeat the same treatment again and again. This treatment, too, it will be observed, confines the patient during the whole time that it is in progress to her room, and almost to her couch, and entails upon her the necessity of one or two examinations with the speculum every week during its continuance. But if it can be said to act neither *cito* nor *jucunde*, it might be hoped that this mode of proceeding had at least the third merit of *tuto* ; but it has not. The tendency to contraction or obliteration of the cervical canal after these proceedings is very considerable, and is referred to even as a frequent occurrence, while inflammation, both of the uterus generally, and of its appendages, is a contingency far from uncommon. Of the last of these accidents I have seen several instances among patients at the Hospital who, previous to their coming under my care, had been treated with the stronger caustics for ulceration of the os uteri.

I will not attempt to follow the advocates of this practice through the explanation which they give of its mode of action ; and the rather, since where some see a healthy stimulus to the affected tissues, others discern what they consider to be a dulling, stupefying influence, as they term it, weakening the vital force ; while, throughout the language used with reference to this subject, there is a mingling of metaphor with scientific terminology, from which it is extremely difficult to arrive at a clear notion of what is meant. I do not doubt but that by either mode of applying the caustic potass, the cervix uteri may be



reduced in size ; but my dissent from the practice is founded on the fact that it has none of the three recommendations of painlessness, speed, or safety ; while my own experience would lead me to believe that when adopted, it is usually either out of place or superfluous. During the presence of any active symptom of inflammation, such a proceeding as the destruction of a portion of the uterine tissue by caustics cannot but be perilous ;—after their removal the womb will return slowly, often indeed but imperfectly, to its previous size. This return, however, does take place, as far at least as my experience goes, in the immense majority of cases, and takes place as surely, and not much more slowly, under just those conditions which best promote the general health, as under a course of treatment which, apart from other evils, confines a woman for weeks and months to her chamber and her couch, to the grievous impairment of her general health, and the utter ruin of her cheerfulness, as on several occasions I have had the opportunity of observing. Moreover, very wide variations in the size of the womb seem to be equally compatible with the healthy performance of its functions, while the special tendency which it exhibits under any circumstances that produce congestion of its vessels to increase in size must never be forgotten in estimating the pathological importance of hypertrophy, either of the whole or of a part of the organ. In this opinion, too, I am further strengthened by the fact that some of the most marked instances of enlargement of the neck of the womb, with increased hardness of its tissue, which have come under my observation, occurred in cases where there was no trace of ulceration either of the os uteri or of the canal of its cervix.

At the same time there are some exceptional cases, which I have already referred to, where ulceration, or some allied



morbid condition of the os uteri, is found to exist independent of any appreciable disease elsewhere; and others, equally rare, in which, after symptoms of uterine ailment have been subdued, a morbid state of the os uteri persists, which is benefited by stimulant applications. In such cases I use either the nitrate of silver or the acid nitrate of mercury, though neither of them frequently, and for weeks together no case appears among my patients at St. Bartholomew's Hospital in which the employment of either appears to me indicated. In justice to others, it should, I think, be observed, that we have no right to infer that the majority of practitioners who resort to those agents with much greater frequency than some of us feel warranted in doing, regard them as absolutely the best remedies that could be used, but merely as the best under the peculiar circumstances in which uterine diseases have to be treated. Were it possible to keep any of those milder agents in contact with the abraded os uteri which can generally be applied to an irritated or ulcerated surface elsewhere, this would doubtless be allowed in many instances to be a preferable proceeding. The problem, however, is to find some agent sufficiently powerful to exert an influence which may continue for several days, and thus to obviate the necessity for that frequent painful interference which would otherwise be required. That lotions, baths, and other remedial agents which may be safely entrusted to the patient herself, will answer the desired ends more frequently than some practitioners imagine, is my firm conviction; but I could not refrain from stating what seems to me to be the candid interpretation of their conduct who pursue a different course of proceeding.

Time forbids that I should enter into further detail,—nor indeed does my subject need it; for I proposed to



myself only "To enquire into the Pathological Importance of Ulceration of the Os Uteri." In doing this, I have had of necessity to refer to opinions from which I differed. It was no want of respect for many of those who entertain those opinions, and whose talents have done so much to render them popular, which has led me studiously to abstain from referring to them by name; but I believe, and have high authority for acting on the belief, that "The cause of truth gains much by a course which not only avoids personal controversy, but confines attention to the real merits of the case, independently of the extraneous circumstances which ought not to influence the decision."

I have treated this enquiry, Sir, into what is after all but a comparatively small ailment, as gravely as though it were one of those dire diseases in the study and the cure of which the highest skill of the greatest votaries of our art has found its fit employment. But you will not blame me, I trust, for this: the thousand smaller ills to which mankind is subject bring, in their frequent repetition, as much suffering, cause as much sorrow, and therefore are as worthy of our heartiest labor to understand, and of our best efforts to relieve, as those perilous visitants,—inflammations, fevers, apoplexies, which threaten life only at long intervals or on rare occasions. If, however, it should still seem to any that I have chosen a theme beneath the dignity of this College: may I remind them that Sydenham himself has told us he should not deem his life ill-spent if he had contributed to even the least improvement in the very humblest branches of practical medicine;\* and taking shelter behind his great name,

\* "Etsi nihil magnificentius," says he, "quam odontalgiaë, aut clavorum pedibus innascentium curatio."



plead in extenuation of my poor performance, “Quanta-  
cumque fuerint aliorum conamina, semper existimavi mihi  
vitalis auræ usum frustra datum fore, nisi et ipse in *hoc*  
stadio versatus symbolam aliquam utcunque exiguam in  
commune medicinæ ærarium contribuerim.”

THE END.

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