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/ by a London physician.**

**Contributors**

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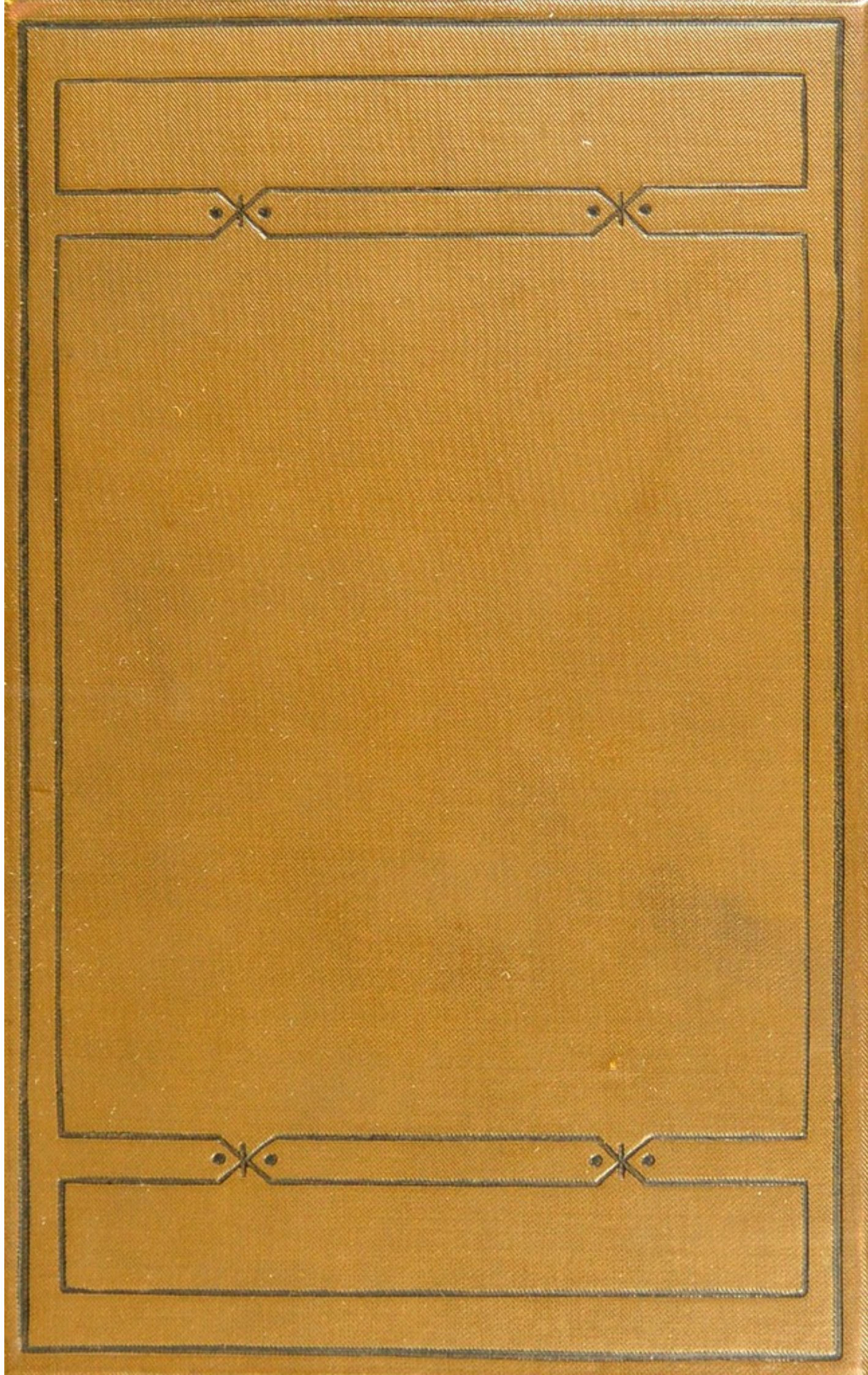
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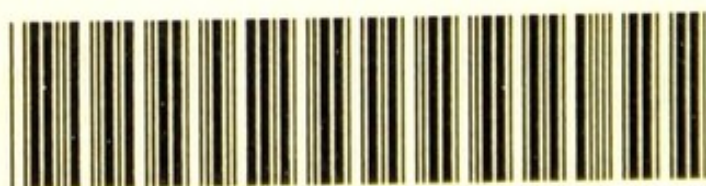
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THE  
LADIES' PHYSICIAN.

A Guide for Women

IN THE  
TREATMENT OF THEIR AILMENTS.

BY A LONDON PHYSICIAN.

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NINTH EDITION.

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1891.

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NOTE.—This Volume contains an account only of those ailments which are peculiar to the Female sex. For ordinary ailments common to both sexes, the Diseases of Children, Hints on Nursing and the Management of Health, the reader is referred to the "FAMILY PHYSICIAN," issued by the same Publishers.

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## THE FAMILY PHYSICIAN:

A Modern Manual of Domestic Medicine.

BY PHYSICIANS AND SURGEONS OF THE PRINCIPAL  
LONDON HOSPITALS.

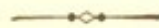
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# THE DISEASES OF WOMEN.

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## CHAPTER I.

### PUBERTY.

Importance of—Age at which Menstruation first appears—Conditions which affect it—Climate—Race—Hereditary Tendencies—Social Position—Habitation—Change of Figure preceding the Appearance of Menstruation—Diet at this Period—Clothing—Exercise.

PUBERTY — the time of transition from girlhood to womanhood—forms one of the most important epochs in the life of the human female. It is a time when great demands are made upon the constitution, in consequence of the rapid development of the intellectual, the emotional, and the generative systems. It is one peculiarly liable to disturbance of the physiological processes which naturally go on in the body, and to attacks of disease. Marked care should be taken of the young girl at this period, with a view to favour the natural processes which are taking place, to ward off evil influences, and establish the general health as well as the functions of special organs. One of the most marked of the latter is the discharge, every



month, of a sanguineous fluid from the generative organs—or menstruation. When this function is naturally and healthily established, it is generally and rightly considered that a great crisis has been passed. When, on the other hand, it is not established at the proper time, or but imperfectly, the condition of the young subject is regarded as one of anxiety. Every mother should be acquainted with the physiology of this subject and this period, in order that she may know what to expect, understand the meaning and value of certain peculiar symptoms which not unfrequently make their appearance at this epoch, recognise those of evil omen, and place her child in the most favourable conditions to pass through a time which must always be regarded as one of considerable anxiety in a favourable manner.

At this period, physical and moral care and education are of peculiar importance, for lack of either may result in disease, which can with difficulty be eradicated; while, on the other hand, both the mind and body are in such a plastic state that by proper treatment they can be moulded, in a great measure, according to desire.

The above observations are more or less true of infancy, childhood, and the whole period of growth and development, but they are especially true of the time when a function which is acted upon by, and

reacts upon, all the other functions of the organism in such a marked and mysterious manner as the function of the organs of generation is being developed and established.

We will, therefore, in this chapter briefly describe the changes which take place at this period, and point out the general home treatment that is likely to lead to a favourable issue.

*The Age at which Menstruation first appears.*—This varies considerably in different individuals. The average age, calculated from observations made in a very large number of cases, is in this country about the fifteenth year. It may, however, appear much earlier, and may be retarded to a much later age. Indeed, instances are known in which infants have suffered from a monthly discharge of sanguineous fluid from the genital organs, accompanied by all the symptoms of menstruation. On the other hand, cases are on record in which the appearance of the menstrual function has been delayed until after the thirtieth year. Both are, however, of great rarity, and should be regarded rather as curiosities than as normal evolutions. It is, at the same time, well to bear in mind the possibility of such occurrences, especially as mothers are liable to become over-anxious about a retarded puberty, and desirous to force the appearance of what the young girl is not yet prepared for. There are other rare cases



in which menstruation never appears throughout life, or where it is established only after marriage or after pregnancy. The cases where the function is never performed are, probably, instances of deficient development, or absence of some of the organs of generation; while those in which it is established only after marriage are cases in which those organs have not attained full development before marriage was contracted.

There are several conditions which appear to exercise a marked influence on the time of the first appearance of this monthly flow. Amongst these the most important are climate, race, hereditary tendencies, social position, and town and country life.

*Climate.*—In our own climate there is, it is true, a great variation in the time of the appearance of the first flow in different women, but, as has been said, the average age is about the fifteenth year. In hot countries, as India, the average age is about thirteen; while in cold climates, as in the North of Europe, menstruation is not established until about the seventeenth year. Moreover, in hot climates girls pass into womanhood, and women become old, at an earlier period of life than those who dwell in colder climates.

*Race.*—Inasmuch as different races inhabit different climates, it is difficult to attach to race and climate the exact influence each exercises on the first appearance of the menstruation. Both usually act together, and

the influence of each is in the same direction ; yet it cannot be doubted that race plays a marked influence in determining the first performance of the function we are considering ; for Englishwomen brought up in India menstruate for the first time about fifteen, while the Hindoo women are regular at the age of twelve or thirteen. Observations made in several nations prove the same thing ; but none are more striking than the one just mentioned.

*Hereditary Tendencies.*—The females of some families menstruate early, while in those of other families the function is late in its appearance. Occasionally the daughter becomes regular for the first time at the same age that the menstruation first appeared in the mother. This may happen in two or three generations, though, owing to numerous causes, it occurs only rarely.

*Social Position* has a determining influence on the date of the first appearance of the catamenia, or menstruation. Girls of the higher classes of society, who lead luxurious, sedentary lives, whose diet is rich, stimulating, and abundant, are regular at a somewhat earlier age than those whose fare is scanty, who work hard, and are accustomed to muscular exercise, &c.

The last element which exerts an influence on the appearance of the monthly flow which we shall mention is *Habitation*. Those who live in large towns, and who are subject to the exciting influences of the social life



of cities, menstruate earlier than women who live in the country.

All these conditions should be kept in mind when the time of puberty is approaching, so as to have some idea of the time when the appearance of the monthly flux may be expected, and to relieve any anxiety that may be felt on account of its precocity or retardation.

The quantity of the discharge varies much in different women, and consequently it is impossible to fix the exact amount proper to any individual subject. The personal experience of the female herself alone can do this. In some the flow is habitually scanty, lasting a day or two only; while in others it is profuse, lasting seven or eight days. - In the great majority of cases, however, it lasts from three to five days. By the Mosaic law, five days was fixed as its duration. It is not improbable, however, that, owing to peculiarities of the race and the climate inhabited by them at the time the laws were given, its duration was somewhat more prolonged than it is usually in our country.

In many cases menstruation makes its appearance suddenly and unexpectedly, without any previous warning. In some cases accidents, falls, over-exertion, or horse-riding, may determine the first flux. A girl should always be forewarned against being frightened when this happens, by being duly and properly

informed beforehand of the changes that are taking place in her system, and of what she may expect. This is the mother's duty; and the due performance of it may not unfrequently save from very serious consequences. It has happened that the flux has taken a girl unawares, that she has become frightened, thought herself injured, and bathed herself with cold water, checked the flow, and thus caused very serious illness. This is due only to gross negligence of duty on the part of those who have charge of her; for it should never be possible for her to find herself in such an unfortunate and cruel position.

Usually, however, Nature warns both mother and daughter of what is coming: changes that cannot be misinterpreted by the initiated take place in the organisation of the young girl, which point out that the period of transition to womanhood is approaching.

The form—no longer thin, angular, and clumsy—becomes plump, rounded, and graceful. The gait becomes firm and animated. The chest enlarges, the hips grow broader, the breasts develop and become full and round. The whole body, indeed, partakes in the process of development—the girl becomes a woman.

Besides interpreting the meaning of these changes to her daughter, a mother may do much to favour the normal performance of the function of menstruation,



and to preserve and establish the health of her child at this critical period. Her efforts should be directed to physical and moral training. With regard to the latter we shall say little or nothing, but the former falls in an especial manner within our province. And first of all of

*Food.*—The rapid growth of the body, the development of its various organs, and especially of the system of generation, demand an abundant supply of nourishing material. By this is not meant luxurious living; that would be productive of mischief. Besides laying the foundation for habits of indulgence and of ease, it has, as has already been mentioned, a tendency to bring about a too early advent of menstruation, before the system is properly prepared for the drain which that function entails, and before the organs concerned in its performance have attained the degree of maturity requisite for its healthy continuance. It is not luxurious living, then, but plain, wholesome nutritious food should be the fare of the young girl who is approaching the period of puberty: meat twice a day, plainly cooked, with vegetables, milk, and fruit puddings. Stimulants—even beer—are, as a rule, quite unnecessary.

*Clothing.*—Girls should be warmly clad from an early period. They should wear flannel next the skin, a flannel vest, and drawers drawn closely, but

not tightly, round the leg, just below the knee. Warm clothing is particularly necessary when puberty appears: especially should exposure to severe cold when imperfectly clad be avoided during the menstrual epochs. Imprudence in this respect may be productive of severe mischief, as will be pointed out in the next chapter. It is better to wear flannel next the skin than to interpose linen between, because the former not only prevents the dispersion of the heat of the body, and so preserves the general warmth, but it also gently stimulates the cutaneous surface, favours the circulation as well as perspiration in it; and when, after exertion, while the skin is acting freely, exposure to cold becomes necessary, suppression of perspiration, together with the evils that may result from it, is far less likely to happen.

Stays are very generally worn, and there is no objection to their use, provided only they are properly made. Indeed, they may be of great service, in giving support to a feeble spine, and in helping the full expansion of the upper part of the chest. They should be made to fit the body, should not press on one part unduly, and, of course, should not be tight. It is hardly necessary here to refer to the evils of tight lacing; the fashion has, fortunately, long ago passed, and a very small waist is no longer regarded as elegant or natural to woman.



With regard to other clothing, it should vary according to the season of the year. During the hot days of summer errors are more likely to be committed than at other times, because of ignorance, or neglect of the difference in temperature in the day and in the evenings. This difference renders clothes which are ample during the heat of the day quite insufficient for the cool of the evening.

Whether stays be worn or not, clothes should not be tied too tightly round the waist. With a view to avoid the necessity of this, hooks should be fastened to the stays, in order to support the clothes and prevent them from slipping, and the tying should be sufficient only to retain them on these hooks. Whatever may be said in favour of the evening dress which is at present in use, it cannot be denied that exposure of so much of the upper part of the body is, in our climate, fraught with great danger. Slight draughts in hot rooms frequently give rise to severe colds, and the ordinary evening dress is only too favourable to the effective action of such currents of cold air. In such circumstances great care should be taken to cover the shoulders after any exercise which heats the blood and causes free perspiration.

*Exercise.*—During the whole period of growth and development the young girl should take regular daily physical exercise. It favours the processes which go

on in the body, facilitates nutritive changes, and renders regular and uniform the play of all the functions. Indeed, without exercise there cannot be health. All exercise at command should be undertaken—walking, riding, swimming, dancing. Walking is within the reach of all, and is sufficient to maintain robust health. It should not be taken immediately after a full meal, but in the morning or in the middle of the day, so as to have the combined effects of exercise, of good air, and the stimulating influence of the sun. Riding, when possible, is one of the best forms of physical exercise. It should not, however, be taken to the exclusion of walking.

Swimming is luxurious as well as bracing. The time that different persons can remain in the water with benefit varies much with the vigour of the constitution and the power of endurance. After being in water for some time the body becomes colder, but this should not be allowed to be carried to any considerable extent; for the good effects of swimming depend not only upon the actual muscular effort made, but also on the reaction which should be established after leaving the water. If this reaction fails, swimming and all forms of bathing are injurious. The duration of the bath should be regulated so as to ensure such reaction. This varies much; and some persons may remain in the water for hours, others for minutes,



while some can only take a single plunge. After bathing, the skin should be thoroughly dried and rubbed well with a rough towel, so that the whole surface becomes warm and red. Then a glow is felt all over the surface, and a pleasant feeling of lightness and activity. When this occurs, bathing does good; but when it fails, bathing should be given up.

Dancing is not only a graceful, but a most healthful exercise. It is, unfortunately, in this country associated with late hours, hot rooms, and bad hygienic conditions, and the evils resulting from these associations more than counterbalance the good derived from the exercise. For this reason we do not hesitate to condemn the practice of sending young girls to balls and parties, much as we would value dancing exercise when undertaken at proper hours, in the open air or well-ventilated rooms.

Nothing should be allowed to interfere with the regular sleep of young and growing girls; and exercise should be taken up to slight fatigue, for nothing is more favourable to healthy and peaceful sleep. Early hours should be observed, both in going to bed and in getting up; the air of a room is fresher and healthier in the morning, when they have been unoccupied for several hours, than in the evening, when they are hot and stuffy, from burning of gas, candles, or lamps, and from the products of respiration.

## CHAPTER II.

## SYMPTOMS OF MENSTRUATION—DISORDERS OF MENSTRUATION.

Scantiness or Absence of—Causes of such Condition—Treatment—  
 Suppression of Menstruation—Causes of—Consumption—  
 Disease of Kidneys—Green Sickness and Pallor—Treatment—  
 Hæmorrhage and Other Discharges—Mental Emotion—Treat-  
 ment.

WHEN a menstrual epoch is about to appear, certain symptoms make their appearance which indicate that the flow is coming. These vary in different women; in some they are absent—there is no suffering of any kind, and the flow appears without their knowledge.

In the majority of cases, however, there is preceding suffering, and the subject is conscious of her condition two or three days before the appearance of the flux. These symptoms consist in a general aching, languor, a feeling of unfitness for work; there is often headache, and a dark ring around the eyes, pain in the back and stomach and down the thighs. Occasionally there is sickness, a slight diarrhœa, and frequent desire to pass water. These are the symptoms which usually precede the flow; they should not be severe, for when they suffice to lay the woman up, they are due to a diseased and not a natural condition. In the next chapter these conditions will be discussed.



One of the first symptoms which usually attracts the attention of women to disorder or disease of the organs of generation is some abnormality in the performance of the monthly function called menstruation. This function is peculiar, so far as is at present known, to the human female. It consists in a discharge of blood and serum from the genital organs. It usually takes place every four weeks; but in some cases this interval is shorter, while in others it is of longer duration. The function is first performed at about the age of twelve to fifteen; it continues to be repeated every month up to the age of forty or forty-five. The process is of so striking a character, so entirely out of the common—indeed, unique—that it has attracted the attention of all people, both civilised and uncivilised. It is the process which marks woman as woman. When the discharge appears, and continues to be repeated without any irregularity or suffering, the girl has become a woman, and it may, with almost absolute certainty, be affirmed that the organs of generation are well formed and of a healthy character. This discharge, then, its appearance, its character, and the regularity of its performance, form a sort of index to the condition of the pelvic organs, and any deviation from the healthy performance of the function points to something wrong in the general condition, or in the organs which are the source of the discharge. The

aberrations in the performance of this function are of three kinds. The menstrual flow may be scanty or absent; it may be profuse, or the bleeding may be repeated too often; and the flow may be accompanied with intense pain. Any one of these conditions indicates that there is something wrong in the constitution itself or with the organs of generation. Moreover, a very large number, indeed, the great majority, of the diseases to which the organs peculiar to the human female are liable call forth or induce one or more of the functional deviations named, so that the importance of these symptoms (for they are not diseases) cannot be over-estimated; for they are the indicators—frequently the first, and sometimes the only ones—of the existence of constitutional or local disease. Further, inasmuch as in the great majority of cases the presence of one or more of the symptoms named are the troubles, *par excellence*, to which a woman is subject, and that during the interval between successive monthly flows she feels herself perfectly well, it becomes us, in a popular work of this kind, to classify diseases, which we shall discuss under the heads of prominent symptoms rather than according to pathological or scientific relations; because, in order to appreciate a classification based on the latter principles, a thorough scientific training is requisite, whereas such training may not be necessary for the appreciation



of one based on the former. Indeed, in actual practice, the process by which a physician or surgeon frequently arrives at a conclusion with regard to the nature of a disease—and this is especially the case with him who treats the diseases peculiar to women—is by analysis—a tracing back of one or more prominent symptoms to their causes, the subordinate or less marked symptoms forming a series of finger-posts to direct him along the right track. We will then, first of all, enumerate and describe those diseases which give rise to the three leading and prominent symptoms named, viz., scanty or absent menstruation, excessive discharge, and painful discharge.

*Menstruation Absent or Scanty.*—This condition is technically or scientifically known as amenorrhœa. It is an affection of frequent occurrence. Its causes are numerous and various. It may, and frequently does, make its appearance at puberty. In that case the sanguineous monthly flow does not show itself at the usual age, and the girl, having passed the period of puberty, and the signs of puberty not having made their appearance, becomes the source of great anxiety to herself and to her parents. The causes of this condition are the following:—

1. Absence of the internal organs of generation or of some portion of them. The presence of some of these organs are absolutely essential for the discharge

to take place. The source of the discharge is the body of the womb itself, or the uterus. The inner surface of that part of the organ becomes immensely congested, the vessels give way, and rupture and a flow of blood takes place from them. But the womb may be present and still the discharge may not appear. There are two small organs lodged in the pelvis, one on each side of the womb, called ovaries. These organs are the factories of the germs which, when fertilised and placed in favourable positions, develop and form a child. These organs also appear to have a very important part to play in the monthly function of the uterus, in the formation and flow of the menstrual discharge, so that their absence would entail absence of menstruation. Absence of the ovaries, then, is one cause of amenorrhœa.

This, however, is not of frequent occurrence: the ovaries are not often absent; more frequently they are somewhat smaller, less plump than natural—in fact, somewhat imperfectly developed. When these organs are wanting, the subject of the malformation is asexual. The external characters which accompany this deformity are a general appearance resembling more that of the male than that of the female. The hips are less wide, the pelvis small, the breasts remain flat and undeveloped, the voice is harsh and manly. It is also said that hair grows on the face and chin like the beard of the male. There are present none of those symptoms



which precede and accompany menstruation ; the recurring headache, the pain in the back, the weight at the bottom of the stomach, the aching of the thighs, the general lassitude, and the dark areolæ round the eyes, are all wanting. Indeed, such a person presents to an observer but few of the peculiar characteristics of woman. The ovaries are lodged high up in the true pelvis, at the junction of the true with the false pelvis—a position which renders exploration of the organs during health impossible : so that it is not possible to recognise with absolute certainty absence of the ovaries ; yet the general symptoms, positive and negative, go far to prove such absence, or, at least, complete inaction of the organs if they be present. Of course, nothing can be done to remedy such a malformation. At the same time, it should be borne in mind that though the person cannot become a mother, yet the general health is in no way affected by the deficiency, and that she cannot become the subject of many diseases to which well-formed women are liable.

2. Absence of the womb, or uterus. This is the organ which supplies, at the instigation of the ovary, the menstrual blood, and its presence is consequently essential to the performance of the menstrual function. It is also the organ which forms the nest in which the child, or embryo, is lodged and nourished before its birth ; and, moreover, it is the active agent in

the act of giving birth, for by the force of its powerfully contracting muscles is the child driven into the world. Entire absence of the uterus is very rare, but a rudimentary condition of the organ is less rare, though still not frequently met with. In persons in whom the womb is absent or rudimentary the menstrual flux is absent or scanty. The flow may take place without pain, but in many cases the pain accompanying the performance of the function is severe.

The general configuration of the body is womanly, the hips are broad, the pelvis large, the breasts round and well developed. The menstrual colic, or the aches and lassitude which so often accompany menstruation, may be present, though more often absent. Treatment is vain when the uterus is absent; and when the organ is rudimentary, there are no means yet discovered by which its development can be ensured.

3. The menses may have not made their appearance by reason of an obstruction to their outflow. In such a case the uterus and ovaries are present and perform their functions; the menstrual discharge is poured into the cavity of the womb, but, owing to the occlusion of the outlet, remains dammed up in the cavity of the uterus or the canal of the vagina, or passage leading to the womb. The obstruction is most frequently met with at the mouth of the vagina. It is usually



caused by an abnormal condition of a membranous fold placed in that situation and completely closing the passage. This fold of membrane—called the hymen—is a natural structure, forming a sort of imperfect valve to the vaginal orifice, but not completely closing that opening. Complete closure is a condition which, unless remedied, may lead to very serious results. It causes no trouble or inconvenience, however, during infancy and childhood, not indeed until the advent of puberty, and not then unless the organs of generation become active and the menstrual secretion is formed. When the secretion of the menstrual flux begins, the troubles arising from closure of the vagina also begin. The discharge is secreted and poured out of the womb into the passage which leads outwards, in order to be separated and cast off from the body, but the orifice of the vagina, being completely closed by the hymen, prevents the escape of the discharge. In this manner it becomes lodged in the vagina. When the menstrual flow has ceased, but little discomfort, if any, will be felt during the first interval; but when the time of the next flow arrives the trouble returns. In this manner the discharge in the vagina accumulates and increases in quantity. As time wears on, the pains preceding and accompanying menstruation—the *molimena*—increase in severity. They become more and more intense, and at last

agonising. If carefully looked for a tumour or swelling may now be found in the bottom of the stomach. It is smooth, elastic, often very tender, the upper part is roundish ; it rises from the pelvis, and has the shape and character of the uterus during the early months of pregnancy, and the girl may be unjustly charged with being in the family way. This tumour gradually increases in size every month. It should be noted that the increase always occurs at the times the pains are present—that is, at the times when the discharge is poured into the cavity of the uterus—and not during the interval. The pains in the stomach at last become prolonged and almost constant. The general health becomes deteriorated. The healthy and rosy-looking girl becomes sickly, pallid, and sallow. The appetite is lost, there is frequent vomiting, the bowels are confined, and there is constant urinary trouble.

The discovery of such a condition is of the greatest consequence. It should be done in order to save the innocent from foul and unjust aspersions. It should be done in order to relieve her from continual and agonising suffering. It should be done in order to save her life, for so long as it (the state) is permitted to continue, so long is the danger to life imminent. It has just been stated that life is endangered by this condition. This danger comes about in the following way :—The discharge, not finding an outlet, accumulates



in the vagina, and distends that organ. When this distension has gone on to a certain degree, and still more fluid is poured into the cavity, the uterus begins to dilate, and this organ in its turn becomes distended; then the fallopian tubes, which lead from the womb to the cavity of the belly, become dilated, and the menstrual fluid may regurgitate along the dilated tubes into the abdominal or peritoneal cavity. This would give rise to an inflammation of a virulent and fatal character. The consequence would be certain death. But the fallopian tubes may not have been dilated. In that case the womb itself, by its over-violent contractions to get rid of its contents, which act as a foreign body, may give way by rupture, and the discharge escape, through the opening thus formed, into the peritoneal cavity — to give rise to intense pain and rapid death. Under such circumstances, interference becomes absolutely necessary, with a view to avert ultimate death.

This condition requires considerable skill and knowledge for its discovery. An examination of the parts and organs contained in the pelvis must be made before the state of things can be diagnosed. Digital and ocular examination of the external parts will discover the closure of the vagina and imperforate condition of the hymen. The finger cannot be introduced into the passage, and the eye cannot discover the

fissure in the hymen. This, however, is not enough ; it is further necessary to make out whether the uterus is present or absent ; and if it be present, whether it is active in its functions, forcing out the menstrual fluid. A further examination is necessary for determining this point, and it is to be conducted through the bladder and the rectum ; a sound, or catheter, should be introduced into the bladder, and the finger into the rectum. In this way a full and complete exploration should be made of the organs, of the thickness of the vagina, and of the contents of its canal, whether it is empty or whether it contains a quantity of pent-up fluid. Careful examination of the lower part of the abdomen above the pubes is necessary, and if a tumour be discovered in that situation its relation to the contents of the vagina should be made out. In this manner a skilled observer can readily recognise the condition, especially when he takes into consideration, in addition to what he observes for himself, the history which has already been told him. In addition to the above symptoms, in some cases the membrane closing the passage is greatly bulged out and thinner, and the dark sanguineous contents of the vagina may be distinguished through it. Such is the history and such the symptoms of this malformation of the hymen.

The obstruction to the flow may, however, be



situated in other parts of the passage than the external orifice. The vagina itself may be entirely wanting. This is always a congenital defect, a malformation existing at birth. It is of rare occurrence. The vagina may be simply a stout thin pouch of varying length, but not reaching the womb. This is likewise a congenital malformation.

The canal of the vagina may be narrowed and completely closed in any part of its course. This condition may have existed at birth, or may be the result of inflammation acquired after that event. This is caused by wounds or tears of the wall of the canal, caused by severe labour or accidentally. Adhesions are formed by the pouring out of inflammatory products, and complete closure of the passage results.

The canal of the uterus itself is sometimes closed at its external orifice. This is, however, rare.

The symptoms in all these forms of obstruction are similar to those met with in imperforate hymen, and the method of examination already recommended for the discovery of the fault should be adopted.

The question now comes, What can be done to relieve these troubles and to cure the deformity? Can the condition be relieved and the patient cured without running any great risk? To this it is to be answered that in the case of imperforate hymen the condition can be readily enough relieved. An opera-

tion is required. The offending membrane should be incised or punctured. No operation could be simpler or easier of performance, yet it must be said that it is not free from danger—at least, in many cases. The fact is, that most of these cases have been going on for a long time before they seek medical advice, and before any efficient means are taken for their cure. Perhaps in many cases medicines, baths, gin, whiskey, and the whole series of domestic medicines generally in use have been tried with a view to establish an impossibility—the bringing on of the flow when there is no outlet for it. These means, indeed, instead of relieving the condition, have greatly aggravated it, for they have doubtless increased the amount of the monthly flow, and in a proportionate degree the sufferings of the patient. When domestic knowledge and skill have been exhausted in vain, then the doctor's advice is sought. He discovers the condition, but only when the vagina and uterus have been for a long time distended and are in a very irritable condition. Under these circumstances an operation for the cure of the malformation is accompanied by great danger—far greater than when performed at an earlier period, before the organs have become so greatly altered in form and texture. The danger arises from the tendency of the womb to contract irregularly, and in this way to drive some of the fluid into



the cavity of the peritoneum, thus giving rise to peritonitis.

But peritonitis, or inflammation of the belly, may arise also without regurgitation of fluid into the cavity simply as the result of the operation.

Operations for the relief of the other conditions causing obstruction to the menstrual flow are more complex and difficult. When the vagina is absent, or a considerable portion of it, the operation is by no means easy, and requires the greatest skill, knowledge, and patience on the part of the operator. The making of a new vagina, entirely or in part, is necessarily accompanied by some danger, but the danger is less than that arising from obstruction to the flow, which will in time necessarily prove fatal unless removed.

When the symptoms which usually precede and accompany menstruation have been present on two or three occasions, and the monthly flow still remains absent, the subject should be at once carefully examined. Should she then seek proper advice, the cause of the absence of the discharge would be found and removed before the fluid has accumulated behind the seat of obstruction and caused distension of the organs above and alterations in their tissues—conditions which not only endanger the life of the patients themselves, but also render the means of relief dangerous; whereas, were the operation performed at an early period of

the menstrual life, it would entail little or no risk, and spare the patient much unnecessary and severe suffering.

Several other causes besides those mentioned may give rise to failure of the appearance of the menses at the proper time; among these no one is of greater importance than that condition known as anæmia and chlorosis, on account of its frequency. These as well as others will be discussed further on.

When menstruation has been regularly and properly established; when the flow has recurred every four weeks on several occasions, and then fails to return at the expected time, it is evident that there is something wrong with the general health or with the organs of generation, unless pregnancy be present. The causes of such cessation are numerous, and all different from those already mentioned. It is evident as the menstrual function has been regularly performed, that the organs of generation are properly formed and fully developed—there is no deficiency in their size, and the passage cannot be obstructed.

One of the first symptoms of pregnancy is cessation or suspension of the menses; and when in a married woman the catamenia do not appear at the expected time, she generally believes herself to be in the family way, and she is usually correct in her suspicions. At the same time, there are many other causes which may



bring about suppression of the menses in those who have been already quite regular; and this should not be forgotten, for should pregnancy be regarded as the only cause of suspension of the catamenia, many young girls would be unjustly accused or suspected without the slightest cause. These causes we will now proceed to enumerate, and we will at the same time give brief descriptions of the symptoms which usually follow or accompany their action.

Many general diseases give rise to suppression of the catamenia. For the healthy performance of the functions of any organ in the body sound general health is necessary. This is eminently the case with regard to the womb. Disorders of the womb itself give rise to innumerable general troubles, and many disorders of the general health give rise to suppression of the uterine functions. The diseases which cause these troubles are of a depressing and enfeebling character. They deteriorate the blood, partially arrest nutrition, cause wasting of the system, sometimes by some drain on the constitution, sometimes by their interference with the natural processes. Consumption is not unfrequently associated with amenorrhœa or menstrual suppression. Indeed, a suspension of the menstrual discharge is often one of the first symptoms of this insidious disease observed by the patient herself, and she goes or is taken by her friends to the doctor in

order to "have them brought on." She has not been regular for some time, and she as well as her friends regard this as the source of all the mischief—of all her symptoms. Of this she is so firmly convinced, that in all probability she has already tried all the means of which she has knowledge, in order to bring about their return, but happily in vain. Indeed, it is often difficult to persuade her and her friends that her symptoms are not due to the suppression of the menses, but to a much more serious condition, of which the suppression is the consequence. "I am sure," she says, "if they were brought on I should be all right." They have, according to her idea, run to her head or her chest; whereas the real truth is, she is suffering from a severe disease of the lungs, of which she is quite unconscious, and the exhausting effects of this disease on her constitution it is which has caused the suspension of the flow. In such a case it would be very wrong to attempt to bring on the flow; the constitution cannot afford the loss of so much blood; it is required for other purposes. Indeed, in treating the case, no thought should be given to the amenorrhœa; all the attention should be directed to the disease of the lungs, which is at the root of all her troubles. Nourishment, fresh air, oil, and iron, and change of air should be the means employed to counteract the mischief.



Another disease which is not rarely a cause of amenorrhœa is that disease of the kidneys known as Bright's disease. This is an affection which causes deterioration of the blood by causing a part of its albumen to pass out through the kidneys with the urine. It causes extreme pallor and dropsy. This form of suppression, like the former, should be treated by attacking the disease of the kidneys, and improving the blood and the general health.

*Chlorosis, Chloranæmia, or Green Sickness.*—This is a disease very frequently associated with disorders of menstruation, and especially with suppression of the menses. It consists in a deficiency of red blood corpuscles and a watery condition of the blood. The blood is paler and less in quantity than it should be. It attacks young girls very frequently at the approach of puberty, and is often a most troublesome disease to cure, defying all efforts, and rendering all our skill vain. It sometimes comes on before puberty is established, and strong, lively, rosy, healthy girls become pale, sickly, dull, and feeble. In such cases the catamenia do not appear at the usual age, or only appear but very slightly. In other cases puberty has been attained and crowned by the regular and thorough establishment of the menstrual functions. The person has passed from girlhood to womanhood without a hitch; but soon after she begins to ail, she becomes a

little paler, her appetite is fanciful. It is the beginning of anæmia, or perhaps green sickness.

The symptoms of the disease are pallor. In simple bloodlessness the pallor is of a transparent white; in green sickness there is a peculiar and often very striking greenish tinge with the pallor. The skin everywhere is pale, according to the degree of the disease. The lips are pale, sometimes almost white; the gums and mucous membranes of the mouth and eye are pale. The veins of the skin are bluish and not distended, for the actual quantity of blood is diminished. There is headache: this is almost constant pain in the temples and forehead. The patient is often giddy, and has noises in the ears. She complains of pain under the left breast, but she is not feverish. She has often pain along the spine, in the neck, between the shoulders, and in the loins. She complains of pain here and there of a neuralgic character. The appetite is very uncertain; there is often loss of appetite; in other cases the appetite is degraded, and the patient eats the most indigestible things: she eschews meat altogether, and eats pickles, fruits, bits of chalk, &c. The bowels are confined, often obstinately so, and greatly loaded. The stools are often offensive. The tongue is often furred, sometimes even covered with a thick brown fur. It is, however, often clean but pale. The breath is short; the patient is



unable to go up-stairs or up-hill, or to walk any distance, for want of breath. The heart is in a very irritable condition; the least excitement or exertion will bring on palpitation, owing, probably, to the condition of the nervous system and the deficiency in the quality and quantity of the blood. The anæmic person is incapable and disinclined for any exertion; she likes to lie about or sit, does not care about going out, remains in the house, doing nothing but lounging about in a languid fashion. She is drowsy, heavy, and dull. She suffers from great lassitude; she is good for nothing; she is sometimes sick. Owing to the watery state of the blood, all the tissues are in a relaxed condition; nutrition is greatly impaired; the watery part of the blood oozes out of the vessels in the lax or depending part of the body, so that there is slight swelling of the ankles, sometimes of the eyelids. On listening to the heart and the great vessels of the neck, peculiar and characteristic sounds are heard, owing to the thin blood travelling along through the heart and vessels. This sound diminishes in loudness as the patient gets better of the disease, but often does not disappear altogether, or, at least, it may be heard in a slight degree after the patient has gained her usual healthy colour.

This disease is brought on by depressing causes—causes which act unfavourably on the nutritive

processes of the body and cause a deterioration in the quality of the vital fluid. Some of these causes are want of food, want of fresh air, bad food, bad air, sedentary occupation, living in warm, stuffy, ill-ventilated rooms, the inhalation of air contaminated with the poison of sewer gas, or other volatile poisons, over-work, &c. Sempstresses frequently are subject to this complaint; indeed, the conditions under which many of them live fulfil to perfection the demands for the production of this disease; but not only those who live in conditions unfavourable to health, but also those who possess every advantage and comfort may become the subjects of this affection. Without discoverable external cause, with good and plenty of food, with fresh air and change of air, with wealth and comfort, and all the necessaries to ward off disease, a member of the family may become the subject of chloranæmia. In such a case the cause may be emotional, but it may be an inherent vice of the constitution. The patient has never been strong, has always been delicate, though never seemingly ill. Still, her constitution has never been robust; and towards puberty, when an extra demand is put upon it, it gives way, and the whole complex machine is thrown completely out of gear. The patient becomes chlorotic because the constitution does not possess sufficient vitality to carry on the nutritive processes with sufficient vigour to meet the



increasing wants of the economy. The constitution is not equal to the demands of development and the duties of life. In such cases much may be done by external means and medical and moral treatment. By such means constitutions may be changed and completely altered—the weakly may be made strong, and the sickly healthy; and by such means may the chlorotic be sometimes cured.

When the disease has been thoroughly established, the difficulty of effecting a complete cure is very great. When it has been once apparently removed, it returns again and again; at the same time, by persevering in the use of proper medicines, proper hygienic and dietetic means, the disease may be removed and the patient effectually cured. These means require often to be used for a long time and continuously. Change of air is a very useful agent in the treatment; exercise in the open air is of the greatest importance. Exercise within doors will not do; the exhilarating influence of fresh air is necessary. Walking and riding are most useful, and better than carriage exercise. Change of dwelling is often useful. The place of abode may be too low, too damp, or in the neighbourhood of malaria; in such cases it should be changed, and a proper one selected. The food ought to be carefully chosen; no indigestible meat, vegetable, or pastry should be taken. Red meats are better than white;

beef and mutton best. Red game may be taken. Fish should not be altogether eschewed, but should be taken sparingly. Good soups are useful, and beef tea above all of them. Milk is a most nutritious diet, and proves beneficial in chlorosis; milk puddings may be taken.

The medicines usually given are administered with the object of improving the condition of the blood, of increasing the number of its red corpuscles, its red colouring matter; with this view iron is given after food. One of the best forms of iron is the steel wine, because it is easily digested and absorbed. There are other forms of iron which are of the greatest utility; for no single form of iron can be taken with benefit for a very prolonged period: the system appears to become accustomed to it, and after a time does not receive that benefit which is expected from it. When this happens, the preparation of iron should be changed; in this way the effects of iron on the system can be obtained for a long period continuously.

Other medicines are given with the same object, especially the preparations of arsenic and manganese, and in some cases where iron cannot be borne with great benefit.

The bowels should be kept regular. In these cases there is generally constipation, and in some cases obstinate constipation. The motions are often dark and offensive. The liver appears to be acting



sluggishly ; indeed, the functions of all the organs in the body seem to be less active than usual. In these circumstances a little blue pill at night to act on the liver, and a small dose of salts or a black draught in the morning, give great relief. They lighten the whole system, remove much of the drowsiness, and cause the patient to feel brighter and better. At other times a dose of Pullna water, Carlsbad salts, or Friedrichshall water, two or three times a week, taken in the morning, gives great relief, and keeps the bowels regular.

There are various watering-places, both in England and abroad, a season at which is productive of much benefit to chlorotic or anæmic persons. These places are those where there are two kinds of springs—a saline and a chalybeate. The saline should be taken in the morning on first going there until the bowels have been acted upon freely—it should in most instances be taken every morning for a few days or a week ; and afterwards the chalybeate or iron water should be taken two or three times daily after meals, taking care to regulate the bowels by an occasional dose of saline. Iron is liable to cause headache when the bowels are confined, so that the importance of warding off constipation is great ; for not only does it interfere with the proper absorption and action of the steel, but it also causes very severe suffering. The

chief places where saline and chalybeate springs are found are Cheltenham, Leamington, Scarborough, Carlsbad, Ems, Franzensbad, Homburg, Pyrmont, Schwalbach, and Spa.

Baths are very useful in the treatment of the affection we are now discussing. The action of the skin should be excited. The bath should be taken cold every morning; the patient should remain in the water for at most a minute, and if she does not become warm and feel a glow all over soon after she has come out of the bath, she should only plunge into it, and be then thoroughly well rubbed with a rough towel until she is dry and warm: this should be done always after a cold bath. It makes the skin red, gives a glow over the whole body, makes the person feel warm—causes, in fact, a healthy reaction. Baths do harm when such reaction is not excited after them.

The patient should have mental occupation given her, for she will find none herself. It should not be of a severe or exhausting character, but light and amusing. It should be just enough to occupy the mind without wearing it. It should be alternated with amusements, change of scene, and all the little things that contribute to make life happy and bright. Depressing influences should be altogether avoided.

No attempt should be made directly to bring back



the menses. The treatment must be directed entirely against the general disease. The absence of the flowers is only a symptom of the general condition under which the whole frame labours, and of the influence of which every organ in the body partakes. When this general condition is cured and the disease removed, the symptoms will disappear, and the menses will return and become regular; when, however, this object has been attained, great care will be required to prevent a return of the affection, and a careful watch should be kept on the sufferer, in order to ward off the earliest symptoms of such return.

Again, all diseases which affect nutrition of the body in an unfavourable manner, or cause a constant and profuse drain upon the constitution, may bring about suppression of the menses. Among these may first be mentioned hæmorrhage. Hæmorrhage, in the first instance, causes an actual diminution in the amount of blood in the system, and, at the same time, brings about necessarily a deterioration in its quality—in fact, it causes anæmia; and while this state lasts, and even for some time longer, the menses may not appear.

Long-continued and profuse discharges from any part of the body, such as a chronic discharge of matter from an ulcer, or from an abscess, or from a diseased bone, or an exhausting white or yellow discharge from

the womb or vagina, may, by lowering the system, in time bring about amenorrhœa.

Mental disturbance, anxiety of mind, strong emotions of pleasure or of pain, joy, grief, and sudden fright, may cause a similar condition. This is not to be surprised at. The influence of the mind on the body, and on the processes, whether healthy or diseased, which take place in it, is very marked. Emotions will arrest digestion, in some cases give rise to diarrhœa, in others constipation. They often increase the secretion of the kidneys, and sometimes cause a constant desire to pass water. Thoughts of unpleasant things are often most effectual emetics—they cause the stomach to expel its contents in a most sudden manner. The secretions of the stomach and of other organs may be instantaneously and entirely suppressed by a strong emotion. In other cases emotions cause a great increase in the secretion of organs, as that of the lachrymal or tear-forming gland and the kidneys. It cannot be wondered at that the womb—an organ that is in such intimate sympathy with the other organs of the body—is subject to similar influences, and that emotions may bring about total suppression of the monthly functions of the others, and that it may also, as will be pointed out later, give rise to an increase of the secretion, and to a profuse flow of menstrual fluid.



Disease of the ovaries is also a cause of amenorrhœa. The exact relation between the ovaries and uterus is not known. What influence the former exert over the latter is somewhat uncertain; it was at one time believed, and indeed is still by a great majority of physiologists, that the ovary is the prime mover in the performance of the monthly functions of the generative organs. This has lately, however, been called in question, and it has been maintained that the womb performs its part of those functions quite independently of any ovarian influence. Whether this be the case or not, it is certain that the ovaries play a very important part in the life and in the formation of the physical and moral character of woman; and when the ovaries are removed by artificial means, or an operation, or by disease, a great change takes place in the subject of such deformity, and one of these changes is suppression of the menstrual discharge. It is stated that this does not occur in all cases, yet the exceptions are so few as not to invalidate the rule. The suppression may take place at the time when the ovarian disease sets in, or may come in after it has progressed some time and involved the structure of both ovaries.

Inflammation in and around the uterus is another cause of menstrual suppression. By this process the ovaries become bound down by artificial bands of

membrane, and their activity may become entirely destroyed, and the menses then cease to appear. Tumours of the uterus occasionally bring about a similar suppression.

The *treatment* of these various forms of suppression of the menses varies according to their cause.

Hæmorrhages should be stopped; whatever be their source, this should be our first object. When this object has been attained, the next step in the treatment is to supply the place of the lost blood—to increase the quantity and improve the quality of the vital fluid. The means for effecting this are those for the improvement of the general health—a nutritious, healthy, easily-digested diet; beef tea, milk, red meats, fresh air. A small quantity of wine may be useful if the digestion be feeble.

Profuse and exhausting discharges, chronic abscesses, or ulcers, should be made to heal as rapidly as possible, by appropriate surgical means, and the means already pointed out for the improvement of the general health.

Discharges from the womb and generative passages should be treated by means of injections. Injections of warm water for the sake of cleanliness, and of astringents, as oak-bark, tannin, alum, or sulphate of zinc, for cure. General treatment in their cure is of the greatest importance. The bowels should be



regulated, the digestion seen to, the diet should be good. In spite of all these means, such a discharge may persist. Then further treatment of the inner surface of the womb will become necessary.

A suppression arising from mental anxiety, exposure to cold, &c., requires very careful treatment. It is in these cases that attempts should be made to act directly on the womb; at the same time, violent remedies should not be carelessly taken with that object. It not unfrequently happens that with the suppression the general health is disordered. In such cases the general condition should be attended to first. If there should be indigestion, it should be cured. If there be constipation, it should be removed. If the liver act sluggishly, small doses of blue pill may be given. Should the general health be good, attention may be directed to the organs of generation themselves, and medicines administered and means employed directly to bring on the flow. The medicines used for this purpose are mild purgatives—a pill of aloes and myrrh, or aloes and iron, or brisk doses of mercury; iodide of iron has also been given with benefit. Oil of savin, ergot of rye, and cantharides are remedies which are believed to act directly upon the uterus, and to have the power of bringing on the flow when suspended; but their action is such that they require the most careful handling, and that they should

never be taken except under medical advice. Beside remedies given internally, there are external applications which, when properly used, are of great service in the treatment of this form of amenorrhœa. They are the hot hip bath, placing the feet in hot water, or in hot water containing mustard, large linseed poultices to the abdomen, or a bag of hot salt, sitting over hot water and injections of warm water into the vagina, stimulating liniments to the abdomen and thighs, dry cupping of the thighs, leeches to the womb, the inside of the thighs, or the perinæum. All these remedies are in their turn useful, but each one of them may fail to bring about the desired result; then recourse must be had to other means, or to a combination of two or more of the above at the same time.

Electricity has also been recommended. This is a very powerful agent, both for good and evil. It is a powerful stimulant and anodyne; it is also a powerful destroyer and depressor. It may be applied externally; but when so used it frequently proves of no avail. Instruments have been made to wear in the womb; when placed there they generate a feeble current of electricity, and they are said to have proved effectual in procuring the return of the catamenia in some obstinate cases of amenorrhœa. They are not free from very serious danger.



## CHAPTER III.

DISORDERS OF MENSTRUATION (*continued*).

Flooding, or Menorrhagia, Causes of—Fibroid Tumours of the Womb—Polypus of the Womb—Cancer of the Uterus—Ulceration of the Womb—Subinvolution—Good Effects of Nursing—Evil Effects of Over-nursing—Inflammation of the Womb—Inversion of the Womb—Hæmorrhage into the Tissues in the Neighbourhood of the Womb.

BLEEDING from different parts or organs of the body is of frequent occurrence. Bleeding from the lungs is not uncommonly met with, and then it is said that a "blood-vessel has been ruptured." It is of serious import, for as a rule it is the precursor of a very grave disease called consumption. Bleeding also takes place from the nose, especially in youth and early manhood. It is said that this form of hæmorrhage is not due to disease, but to rupture of the blood-vessels of the mucous membrane lining the nasal cavity, owing to their over-distension with blood. Hence it is said to be caused by blood plethora—an excess of blood in the system—and that Nature avoids more serious consequences by this simple expedient. Whether this be true or not, it cannot be questioned that in the adult woman—maid or mother—who has attained full and perfect growth, a discharge of blood takes place periodically

every four weeks in a healthy manner from the inner surface of the womb. It is a curious fact that all the hæmorrhages above enumerated take place into tubes or cavities which communicate externally. Blood from the lungs is forced into the bronchial tubes, and is expectorated with the phlegm. Blood from the stomach is ejected by the mouth or expelled by the intestine. Similarly hæmorrhages from the nose and uterus are discharged into channels communicating with the exterior. Again, with the doubtful exception of the bleeding from the nose, all the above are the result of disease, but the bleeding from the uterus is the result of health. Though the womb is not peculiar in pouring out blood on its inner surface, yet it is peculiar in the fact that it pours it periodically; that the bleeding is repeated with regularity for a certain period of life; that such bleeding lasts a certain number of days, and does not, as a rule, exceed a certain quantity in any given case; that it does not occur in childhood and infancy nor in old age.

But the amount of the flow may be increased until it becomes profuse, or may even threaten life; or the bleeding may continue without intermission, or with but slight intermissions, from month to month; or the regularity of the return of the flow may be deranged, and a bleeding may come on at irregular intervals—at intervals much shorter than the typical four weeks.



These symptoms are generally and popularly known as "Flooding." In scientific language, two words are used to denote these conditions, according as the bleeding takes place at a menstrual period, or at any time in the intermenstrual interval.

When the hæmorrhage occurs with the monthly flow, or when the menstrual flow is profuse and excessive, the term *menorrhagia* is used to denote it. When it occurs at any time during the interval between two successive monthly flows, it is called *metrorrhagia*.

Flooding may take place at almost any period of life. It sometimes takes place when menstruation occurs for the first time. It may come on, and indeed it is by no means uncommon, at the change of life—during what is called the "dodging-time." It may appear at any time during these two periods, and may occur even in old age, when the monthly bleeding has entirely ceased for many years.

It is always due to disease, and the conditions that give rise to it are very numerous. Some of these are remediable, while others have hitherto resisted the influence of general and local interference, treatment by medicines, as well as operative procedures, while all cause great discomfort, and may prove, if allowed to proceed unattended to, of a grave nature; for frequent and excessive losses of blood must after a time tell

upon the system, must undermine the constitution, and ruin the health.

The causes of flooding may be divided into local, or those due to the state of the pelvic organs; and constitutional, or those in which the whole system is more or less involved. We shall, first of all, describe the former, and shall limit ourselves at present to those that are found in the unimpregnated womb, reserving those which occur during pregnancy for future consideration.

*Fibroid Tumours.*—Fibroid tumours of the uterus are, after a certain age, of exceedingly common occurrence. The fibroid is by far the most commonly met with of all tumours that affect the uterus; at the same time that it is the most frequently met with it is also, fortunately, the most innocent in character. They are called “innocent growths,” in contra-distinction to “malignant growths,” or those of a cancerous nature. When they attack an organ or part, they have no tendency to repeat themselves in other parts or organs; at the same time, a large number of fibroid growths of various sizes may occupy the walls of one and the same uterus. Fibrous tumours may be present in the womb and give rise to no symptoms, cause no inconvenience, and interfere in no way with the duties of life. This, however, is far from being always the case. Indeed, in many cases, fibroid tumours are a



source of great trouble, much anxiety, great inconvenience, and danger. They occasionally, but very rarely, prove fatal. They are met with at all ages after twenty. They are seldom seen before that age, are more common after thirty, and still more so after fifty. They probably begin to grow at the period during which a woman is regular—that is, between fifteen and forty-five. At the same time, it is not proved that they may not originate after this age; it is certain that they continue to grow after this age in some cases. They grow in the womb itself—in the body and in the neck of this organ, more often in the former than the latter situation; in the fallopian tubes—round and broad ligaments which are attached to the border of the womb; they may also grow in the vagina, but this is not a common seat of fibroid tumours. They are composed of a substance or tissue similar to that which enters into the formation of the womb itself. They are like small local enlargements, or hypertrophies of the substance of the uterus, but that they are in some, though not in all, cases separated from the tissues of the womb surrounding them by a case or capsule of tough membrane. It appears, therefore, that they are—though their structure presents a character similar to that of the womb itself—new formations, new growths altogether foreign to the uterus. They are usually of a roundish form,

but their shape may be modified by a variety of causes. Several may grow together and form in the aggregate one tumour. In this case the surface would be irregularly nodular, and the general shape would possibly be roundish or indeterminate. Or a single tumour may grow so large as to become pressed upon by the solid and resisting walls of the pelvis, or the bony ring forming the lower part of the skeleton of the trunk, and in this manner receive the impress of that ring.

They vary much in size. They may be as small as a hemp-seed, or they may attain such dimensions as to fill the belly, and weigh sixty or seventy pounds. Tumours of such an immense size are but rarely seen; but every size, from the smallest to the greatest, may be met with.

In the same womb there may be present one or several fibroid tumours. Sometimes the number present is very great; so great, indeed, that the tissue of the womb itself has almost entirely disappeared, its shape has become hardly recognisable, and but little is visible except a bunch of fibroids. More frequently there is one or, perhaps, two tumours in the uterus. They grow in the substance of the womb; in that of the upper part, or body, and in that of the lower part, or neck, of the uterus. They are seated more often in the former than in the latter position.



The position the tumour occupies in the uterine wall, with regard to its internal and external surfaces, is of great importance. Upon this depends very much the symptoms which are present and due to the tumour; upon this also depends, in a great degree, the method of treatment which should be adopted. There are three positions which a tumour may occupy in the wall of the uterus. It may be close to and beneath the inner or mucous surface—then it is called sub-mucous; it may hold a similar position with regard to the peritoneal or abdominal surface—then it is said to be sub-peritoneal; or it may occupy a place in the middle of the wall—and then it is said to be interstitial. A fibroid tumour of the womb always occupies one of these three situations.

The symptoms of these three varieties are somewhat different.

*The Sub-mucous* variety, whether small or large, is almost always accompanied by symptoms of a more or less severe character. When even of inconsiderable size, they are accompanied by profuse menstruation, hæmorrhage, and pain. They also give rise, not unfrequently, to a profuse yellow or white discharge—the whites.

*The Interstitial* and *Sub-peritoneal* forms, when of small size, may give rise to no symptoms, and the discovery of their presence is often a matter of acci-

dent. As the tumours grow in size, symptoms appear. These are generally caused by the pressure exercised by the hard and growing fibroid upon the organs in the pelvis, the bladder, the rectum, and the nerves which pass along the wall of the pelvis. The pain caused in this manner may be of the most intense and severe character. It is situated in the bottom of the stomach, on one side or both, extends to the hips, to the back, and down the thighs and legs. It is sometimes like pins and needles, at others a numbness, and occasionally it is of an agonising character. Besides, there may be constant irritability of the bowels, a constant desire to go to stool, a slight diarrhœa, or a constant forcing and bearing down; or there may be difficulty at stool, the bowels may be pressed upon and the canal narrowed, and ultimately entirely obstructed, and complete inability to pass a motion may follow. The bladder troubles are sometimes the most prominent symptoms. The passage of urine may be entirely obstructed, complete retention of urine follow, and artificial aid be necessary to relieve the bladder; or, on the other hand there may be a constant desire to urinate, and the quantity passed on each occasion amount to a few drops only; or the urine may pass involuntarily, the woman having lost all control over the bladder.

When the tumour is so large as to rise above the



brim of the pelvis, it may easily be felt above the pubes by palpation of the abdomen. It feels hard, smooth, firm, round; or it may be of an irregular shape, as in those cases where the tumour is compounded of several small ones bound together, as sometimes occurs. It may be fixed and immovable, or it may be easily moved from side to side or from above downwards. It may be very tender to the touch, or there may be a good deal of pain in or over it. This is generally due to inflammation of its surface, or rather of the membrane covering it—the peritoneum. In consequence of this inflammatory action, adhesions not uncommonly form between the wall of the abdomen and the tumour; and in this way a tumour which was once freely movable may become firmly fixed.

*The Interstitial* form of fibroid tumour—that is, a tumour situated in the midst of the tissue of the uterine wall—has a tendency to assume one of the other two forms. It tends towards the inner surface or cavity of the uterus, or outwards towards the peritoneum or cavity of the abdomen; it does not remain stationary. When it approaches the cavity of the uterus it becomes sub-mucous; when the cavity of the abdomen, it becomes sub-peritoneal. Having reached the peritoneum, this outward progress may go on until the tumour is completely outside the wall of the uterus, and attached to it by a little stalk or

pedicle only. This pedicle may remain short, or it may become greatly prolonged, so that a tumour of fibroid character may be felt to float apparently free in the abdominal cavity. Indeed, this freedom may be real, for the stalk may actually give way, and the pedicle be detached from all its connections.

*Sub-peritoneal Tumours* may not only become detached from the uterus, but they may also become attached to other organs in the cavity of the abdomen by adhesions due to inflammatory exudation. In this manner the real nature of a swelling or tumour may be so disguised that it is impossible to recognise its true character.

Fibroid tumours are easily discovered and distinguished in some cases, while in others this distinction or diagnosis is surrounded by the greatest difficulties. In the former case the veriest tyro may discover their presence, while in the latter the diagnosis may baffle the skill of the most accomplished expert. This arises from the fact that fibroid tumours of a certain size, and occupying a certain situation, are unlike any other tumour or swelling occurring in the pelvis; while at another time, being of a different size and in a different situation, they may resemble other swellings to such a degree as to be almost indistinguishable.

Fibroid tumours may be mistaken for several totally different conditions which occur in the pelvis,



as new growths from other organs, as the ovary, and the product of inflammation. Tumours of the ovary sometimes resemble tumours of the uterus in their history, their symptoms, physical characters, as shape, position, hardness, so closely, that the distinction between them becomes impossible. They may also be mistaken for portions of the uterus when that organ is displaced and misshaped, and with other conditions, such as a loaded bowel, hæmorrhage into the neighbourhood of the womb, and so on.

The diagnosis can be made only after a careful examination of the abdomen and of the womb. The examination should be conducted both internally and externally. Some cases can be recognised by an examination through the walls of the stomach alone, but the great majority of cases require for the recognition of the condition present a careful examination of the womb and pelvic contents also.

The history of fibroid tumours is an uncertain one. Sometimes they grow very rapidly, at other times very slowly. They certainly begin, as a rule, between the age of twenty and forty-five, and their growth is usually most active during this period. After the change of life they have a tendency to decrease in size, or at least not to grow. This rule is, however, not without exceptions, for occasionally cases are seen in which the growth takes place very rapidly after the

period we speak of. Sometimes they undergo a process of atrophy—a gradual diminution in size until they entirely disappear. In other cases they become the subject of inflammation, and finally break down, and become converted into an abscess. In a third class of cases they become the seat of a deposition of lime salt, and the tumour becomes ultimately converted into a calcareous stony mass. In this form it may be driven into the cavity of the uterus, and afterwards expelled by that organ through the vagina, and passed externally. These have been called uterine stones. Such calcareous degeneration of fibroid tumours is not very rare, but their expulsion in the manner described is certainly a very rare occurrence. In other cases rapid death of the tumour may happen from some cause or other; it thus becomes converted into a sloughing, putrid, offensive mass. This is a dangerous termination, for absorption of the decomposed mass may take place; the system thus becomes poisoned, pyæmia sets in, and the life of the patient is in imminent danger.

Occasionally the action of the womb itself drives the tumour into its cavity, separates the mass from its attachment, and ultimately expels it altogether, thus effecting a permanent cure.

All the above terminations are, however, rare. The great majority of women affected with fibroid



tumour of the uterus go on suffering more or less distress and discomfort from the presence of the tumour until the change of life. In the great majority of cases the tumours after this period do not increase, and often they actually decrease in size, and the symptoms due to their presence become less distressing.

The treatment of these cases naturally divides itself into two kinds—that for the relief of the symptoms and sufferings of the patient without materially acting upon the tumour itself, and, secondly, that for the removal of the tumour.

In the large majority of interstitial and sub-peritoneal tumours, palliative treatment alone is applicable. No radical cure can, as a rule, be attempted. The evils arising from this sort of tumour consist in displacement of the uterus, pressure on the surrounding parts, and flooding. The signs of pressure have already been mentioned. The displacement of the womb can in many cases be removed, and the distress arising from it be relieved, by elevating the tumour or the uterus and the tumour into the cavity of the abdomen, and taking means to retain it in that elevated position. The tumour should not be allowed to sink into the pelvis, because in that situation it is sure to give rise to symptoms of pressure. The elevated position of the tumour should be maintained by the introduction into the vagina of a suitable pessary, and

removing everything that is likely to cause pressure downwards on the womb, such as tight clothing; and by slinging the clothes from the shoulders, or wearing a supporter or suspender for them in the form of a girdle supported by the hips. By these means the effects of pressure may be relieved, or even entirely removed.

The flooding may in most cases be controlled, though only to return again. The presence of the tumour in the uterine wall attracts a greater amount of blood into the organ, and this is a constant factor in producing the symptoms. The uterus is therefore in a state of chronic congestion. This congestion cannot be done away with altogether, but it can generally be reduced in amount. One of the most powerful means for its reduction is rest—absolute rest—in the recumbent position, especially during the times of flooding. When a person floods, she should lie down on a hard bed or mattress. She should be kept moderately cool, and should not be allowed to move out of the recumbent position at all—not even to relieve the bowels and bladder; indeed, everything should be done for her. When rest is insufficient to arrest the bleeding, recourse should be had to medicines. The drinks should be cold—iced if necessary. Cold may be applied to the lower part of the abdomen, and to the private parts; small doses of diluted



sulphuric acid may be frequently given, or large doses of the tincture of the perchloride of iron, the extract of Indian hemp, gallic or tannic acid, acetate of lead. These are the drugs usually given by the mouth, and in the great majority of cases they prove effectual as far as to arrest the bleeding. Should, however, these means fail, local applications become necessary. The vagina should be plugged by a wet bandage, a silk handkerchief, or a sponge; or the neck of the uterus itself may be plugged by lint or a tent. The latter would also dilate the canal of the neck, and thus aid not only in arresting the hæmorrhage, but also in clearing up the exact condition of the inner surface of the uterus. Should these fail, recourse must be had to surgical means. The exact means to be employed depend upon the nature of the particular case, and upon the immediate object in view. These medicines and surgical means can be adopted by a doctor only.

The second method of treatment is for the cure of the tumour, for the removal of it either by medical or surgical means. In the former, medicines are given with a view to prevent the growth of the new formation, to diminish the supply of blood into it, and cause its absorption. In the latter, the removal is effected by operation.

*Attempts at Removal of the Tumour by Absorption*

--Absorption is the process by which the veins and

lymphatics take up material brought into contact with them, carry it away, and circulate it through the body. Attempts have been made at all times since these tumours have been known to effect their absorption by the administration of medicines. Sometimes success is obtained by their use, but this is rarely the case. Usually they appear to have little or no action on the size or the growth of the new formation. The medicines used and generally recommended with this object are iodine and bromine and their salts, iodide of potassium and bromide of potassium and of ammonia, arsenic, lead, and phosphorus.

Another method appears to promise more success, and that is the injection under the skin of ergotine—the active principle of ergot of rye. Ergot of rye is well known as a potent drug, having direct influence on the tissue of the uterus during pregnancy, and it is believed to act in a similar manner on the unimpregnated organ. For this reason it has been used to destroy fibroid tumours. It is, as has been already said, injected under the skin; it is absorbed into the circulation, acts upon the muscles of the uterus, and compresses the vessels in its walls. In this manner it diminishes the supply of blood into the tumour, and when the supply of blood is cut off from a part or diminished, the nourishment of that part is cut off or diminished. The consequence of this is, that



the tissue of the tumour begins to undergo degeneration, a formation of fat takes place in it, this is in its turn absorbed, and the tumour consequently diminishes in size and substance. It undergoes a process of atrophy. This process is occasionally associated with some inconveniences from the peculiar effects of the ergot on the general system, from the abscesses which occasionally follow in the places where the injection was made, as well as from the pain which arises consequent on the muscular action called forth in the uterus.

Salts of lime have been used with a view to cause a deposit of calcareous matter in the substance of the tumour, and in this manner check its growth. The chances of success are slight, and the evil effects of the lime salts on the general system forbid its use, except in a few cases, and under the most careful supervision.

For some years the attention of physicians and surgeons has been directed to the surgical treatment of these growths, and has been attended with a fair amount of success. The number of cases, however, suitable for surgical interference is comparatively small, but some cases of a desperate character—cases in which no hope could be held out, except by removal of the tumour by surgical means—have by those means been rescued from their peril, and restored

to health. There are various ways in which the removal of such tumours can be surgically effected. The means employed would depend on the character of the subject, the size, the situation, and the surroundings of the tumour. As a rule, these operations are attended with great difficulty, and moreover they are not free from danger. Still, great success has attended some of the most formidable operations, even in the most desperate cases. Such cases do not often occur, but when they do, surgical means are the only ones which hold out any hope of prolonging life and of restoration to health—and rather than meet a premature death, art should be allowed to interfere to save the threatened life. Such cases are amongst the greatest and most dazzling triumphs of modern surgery. When hope fails, and death appears to approach to seize its victim, the surgeon's knife steps forward into the arena, snatches the victim even from the grasp of the foe, and restores her to her friends, and gives back to her health.

*Polypus of the Uterus* is another not uncommon cause of flooding. A polypus is a tumour growing from the inner surface of the uterus. Polypi may be attached to the uterine wall by a stem, and then they are called pedunculated; or may be attached directly to the wall of the organ without the intervention of a pedicle, and then they are called sessile. They differ



much in size, sometimes being no larger than a pea, at others as large as a melon. Their structure depends to some extent on their origin. They vary much in consistence, some being hard and firm, and others soft and gelatinous.

The hard or fibroid polypus is similar in structure to a fibroid tumour; indeed, it often is only a later stage of the latter. The fibroid tumour is constantly subject to the action of the contracting uterus. In this way there is a tendency to drive the tumour into the abdominal or uterine cavity; if it be driven in the latter direction it becomes a polypus. This polypus is at first sessile; it has no pedicle, and indeed projects but slightly into the uterine cavity, but after more or less time the continued expulsive action of the uterus drives it farther and farther from its original seat, and the polypus becomes pedunculated; later it often is driven out of the cavity of the uterus into the vagina, and may ultimately be separated altogether. This form of polypus grows usually on the upper part of the uterus, but it occasionally grows from the neck or lower part.

The soft or gelatinous polypi are usually very small, and never attain a great size. They are enlargements of the glands of the mucous membrane of the lower part of the womb. They are supplied with a large quantity of blood, and are usually con-

gested through pressure. They grow from the canal of the neck of the uterus.

*Pluental Polypus.* — Sometimes portions of the after-birth, or placenta, are retained in the womb after labour or miscarriage, and these become organised, attached firmly to the wall of the uterus, and live. This kind of polypus is intermediate in hardness between the other two. They have, of course, a structure similar to that of the after-birth itself, with varying proportions of blood. These may remain in the uterus for a very long time, even years.

There are no known causes of polypus except the last-named.

*Symptoms.*—The most prominent symptom of polypus of the uterus, and the symptom which first directs attention to its presence, is flooding. At first this may happen only at the time of menstruation—the flow being profuse, clotty, and prolonged; but after a time floodings appear at any time during the intermenstrual interval, and often they last for weeks. During the intervals when the patient is free from hæmorrhage there is a profuse white, yellow, or watery discharge. Sometimes this discharge has a very offensive odour, and causes a suspicion of cancer. There is pain in the back, bearing down and sometimes violent pains like the pains of labour, bearing down and forcing in the bowel; there is a



continual desire to pass water, and often forcing in the bladder.

In the majority of cases the doctor has no difficulty in recognising the presence of a tumour of this kind. Sometimes it is driven outside through the vagina, and hangs by a thin fine stem only; then it is easily seen. In other cases an examination will reveal the nature of the case. The womb is enlarged, the mouth of it is open, and the tumour projects into the vagina, or, if lodged in the uterus, it may be felt with the finger. In some cases, however, the mouth of the womb has not been sufficiently dilated to allow of exploration of its cavity; then it becomes necessary to effect such dilation before the nature of the case can be properly made out. When the polypus is small it may escape detection, even though every means at our disposal be employed.

Polypi are sometimes entirely expelled, and Nature effects a complete cure; in other cases they become calcified, or inflammation and mortification set in in the growth and it perishes; or absorption of the foetid products may take place, and the patient becomes affected with blood poison. Their course, however, unless interfered with, is one of prolonged suffering and ill-health. The constant drain upon the constitution from the bleeding and the leucorrhœal discharge exhausts the system, and may bring on permanent disease.

There is but one way of dealing with these growths, and that is to remove them. When flooding has been taking place for a length of time, the cause of it should be definitely ascertained; and if that cause should be polypus, it should be at once removed. There are safe ways of doing so without incurring the risk of bleeding, and indeed without incurring the danger that may arise from the presence of the tumour. The cure is permanent.

*Cancer of the Womb.*—We enter now upon the consideration of one of the most awful of the diseases to which the human frame is subject. It is regarded with fear and dread by all, on account of its malignant and fatal character. It is a disease which may attack almost any part of the body, and in a very large number of cases it proves fatal; while in others—but unfortunately the few—it may be entirely removed and eradicated. The cases in which the disease is curable consist of those where it has attacked parts of the body which can safely be removed by operation. When it attacks the womb, it is usually that part which is easily reached, which is not essential to life, and which may safely be cut off. It attacks the mouth of the womb. It is but rarely—very rarely—that the original seat is in the body of the organ.

Cancer is a disease of old age, or at least of the



time of life when the nutrition of the tissues has become less active and is on the decline. It is met with usually between forty and fifty years; at the same time it may be seen in old people and in young children. It is, however, a very rare affection in children, and when seen in them it runs its course and proves fatal with great rapidity; while in old people its course is slow, and its duration more prolonged. The causes of cancer are unknown. It is believed to be hereditary; it is transmitted from parent to offspring. If the parents have suffered from cancer, some of the children may suffer in a similar manner. When the constitution of cancer has been inherited, slight causes are said to bring on the disease, such as blows and slight injuries.

Cancer of the womb occurs more frequently in the married than in the single, in those who have had children than in those who are barren, in those who have had many children than in those who have had few; so that it appears that fecundity, and the processes of bearing and giving birth, seem to favour the development of this disease. Cancer is not contagious. It cannot be transferred from one person to another by contact; it cannot be inoculated in another person.

There are several forms of malignant disease of the womb which have been usually classed under

cancer. Some of them are very rare, as the hard cancer. This, though met with frequently in other parts of the body, rarely affects the uterus. The forms usually met with in the womb are the cauliflower growth of the neck, or the epithelial variety, and the encephaloid.

Both these varieties form tumours, the latter in the neck of the womb, and the former attached to it like a cauliflower mass, as its name implies. The encephaloid is hard, irregular, or nodular, growing in the cervix, and not attached to it. The cauliflower mass is soft, spongy, and breaks down easily. These diseases are characterised by rapid growth. They increase quickly in size. In the early stages of their existence they appear to be limited to the neck of the womb, and may be removed entirely. This is especially true of the cauliflower growth. It rapidly extends, however—a few weeks or months suffice for it to extend to the neighbouring parts. The vagina, the rectum, and the bladder become involved. Soon the mass begins to break down and mortify or slough. When this takes place, shreds are passed, and an ulcer is formed in the womb. Ulceration goes on and involves the surrounding parts; the bladder and rectum may be opened, and the whole or nearly the whole womb eaten away.

The symptoms of cancer may show themselves at a



very early stage of the disease, or they may not appear until the disease has existed for a long time, and made serious progress. One of the first symptoms which usually attracts the attention of the patient is a flooding. This sometimes comes on early, before ulceration has taken place, and it may be very considerable in amount, or it may be a constant pinky discharge. Before this appearance of the flooding or discharge of blood, there has been usually a little white, or yellow, or watery discharge, but often in such small quantity as to be considered of no importance. When a profuse flooding, or a constant pinky discharge is present, attention is directed to it, and advice sought.

After this there is usually an abundant watery, gummy discharge. This comes on when the tissues begin to break down and ulcerate. The discharge often contains shreds of tissue, clots of blood, and is exceedingly offensive and irritating. The foul smell it possesses sometimes makes the patient a burden to herself and to those near her. This is occasionally the chief cause of complaint. This discharge causes irritation of the external parts, and may give rise to the most obstinate itching.

Pain is another symptom of cancer. It is present in some cases from the first, while in others there is but little pain throughout the whole course of the disease. The pain is in the bottom of the stomach,

and is of a gnawing, stabbing, or lancinating character. It is sometimes constant and severe.

When ulceration has begun, the disease makes more rapid progress. The discharge becomes very profuse, there are frequent floodings, and constant watery or serous discharge. These losses weaken the patient, and undermine the constitution. She loses flesh, and loses it rapidly, becomes thin, and occasionally very thin; a peculiar tint of skin soon appears, a slight yellowish-green colour. This appearance, when well marked, is almost characteristic of cancer. When the disease has extended to the neighbouring tissues or the glands of the pelvis, the broad ligaments of the uterus and the ovaries, a tumour may be felt in the bottom of the stomach. The disease having invaded the peritoneum, causes inflammation of that structure, and gives rise to pain and tenderness.

When the ulceration has extended to the bladder and rectum, the contents of those organs are forced into the vagina, entailing the greatest misery upon the sufferer.

Cancer can with care be readily recognised by a doctor, but there are some forms of disease with which it is occasionally confounded, such as polypoid and fibroid tumours and certain ulcers, together with papillary growth of the neck of the womb.



Few cases of cancer recover. Rarely Nature alone effects a cure. If the disease be recognised in its early stage, there is no doubt that removal is the best method of treatment, and the only one that should be adopted. It admits of no delay. The case may be a suitable one for operation to-day, for it is possible to remove it entirely, but in a week or in a month other tissues may have become involved, so that it is impossible to remove the whole of the affected tissues. When this is the case, the treatment can be only palliative. The pain should be relieved by narcotics. Strict cleanliness should be enjoined so as to remove all discharges, and for this purpose an injection containing some disinfectant, as carbolic acid or Condy's fluid, may be used. The diet should not be too full. Rest is necessary, for motion frequently brings on flooding. It may be advisable to remove as much of the growth as is possible, with a view to check the bleeding. In this case astringent pessaries made of tannic acid and cacao butter will for a time effect this object. Nothing, however, can arrest the progress of the disease, yet removal of a part of it may so far palliate the symptoms as to render life tolerable. The disease brings with it occasionally a train of complications, such as inflammation round the womb, inflammation of the abdomen, poisoning of the blood, dropsy of the kidneys, which, inasmuch as

their cause cannot be removed, must be permitted to run their course. The only help that can be rendered is that for the relief of pain, to prevent flooding and fever, and to keep up the strength.

*Ulceration of the Uterus.*—Ulceration of the womb is an affection said to be of very frequent occurrence, and a great number of the troubles from which women suffer have been ascribed to it. The part of the womb affected by ulceration is that which projects into the vagina, and is called the cervix. The term ulceration is applied to true ulceration where there is destruction of tissue, and also to another condition, where there is only removal of the thin layer of cells covering the part—of the epithelium. The latter condition is a very common one, while the former is of much greater rarity. Indeed, abrasion of the epithelium covering the lips of the uterus is found in almost all cases of long-standing uterine disease. It is most marked usually at the edges of the orifice of the uterus, but it may extend for some distance over the lips and up into the cavity of the womb. It is often very slight, and it may be difficult to say whether it is really present or not. It presents to the finger a soft velvety feel, and to the eye a red or dark-red congested appearance. In most fairly marked cases this condition can be readily diagnosed by the finger alone. This ulceration is said to give much trouble, and to



prolong and aggravate other uterine and ovarian diseases. They tend to keep up congestion of the womb, and in this way give rise to a constant discharge of "whites," and frequently to floodings. The patient also suffers from pains in the back and bottom of the stomach—a constant aching. The pains and the losses of blood and whites keep up a constant feeling of discomfort and uneasiness, and together reduce the strength and depress the spirits of the patient, until often she feels unfit for occupation of any kind.

The causes of this condition are sometimes somewhat obscure, but often its causes may be discovered and removed. The bad state of general health, or a derangement of the whole system, may give rise to abrasions of the womb. In these cases the treatment should be general and local. The strength of the patient should be improved by tonics, as quinine, iron, bark, mineral acids. The bowels should be regulated by mild laxatives. The dyspepsia from which these patients so frequently suffer should be removed by regulating the diet and by appropriate medication. The food should be of a nourishing character—milk and a fair amount of animal food. Stimulants should be taken sparingly, or not at all, unless absolutely required to improve the condition of the stomach and favour digestion. When required,

they should consist of sherry, or a little weak brandy and water. But again it should be said that it is better to avoid them as a general rule.

The question of exercise is one on which opinions differ considerably. Some believe that absolute rest is required, while others advise exercise in the open air. This question can only be decided for the particular case. No general rule can be laid down with regard to it, except, perhaps, that when the patient feels equal to taking exercise in the open air she should do so. Not the ulceration only, but the complications which accompany it, give indications of the necessity for taking or refraining from exercise. The local treatment consists, in the first place, in cleanliness—in injections of simple warm water night and morning. This removes the secretion—which is occasionally very irritating—from the part, and gives a fair chance for the *vis medicatrix naturæ* to effect healing of the sore. Frequently, however, other means are necessary, such as alum or sulphate of zinc in the water injection. The astringent action of these substances tends to diminish the size, or to contract the vessels of the part, and thus to relieve the congestion. In some cases bleeding is performed—a leech is applied to the womb, or a few punctures are made in the lips of the cervix by means of a short lancet. Other cases are treated



with lunar caustic—the solid nitrate of silver—or by other stronger and more powerful agents. These latter are very powerful caustics; they destroy the unhealthy tissue for some depth, and when the dead tissue which forms in consequence falls off, a healthy surface is found beneath. This, after a time, gradually heals, and the epithelium forms over it.

True ulceration—that is, destruction and removal of something more than the epithelium on the surface, the destruction of an appreciable thickness of the tissue of the cervix—is much more rare than simple abrasion.

This form may affect every part of the cervix, or it may be limited to the margins of the uterine orifice. The ulcer is of an irregular shape, and presents a granular uneven appearance; or it may be covered with a greyish or yellowish substance. The cervix of the uterus is red, swollen, and congested. This congestion extends through the whole of the womb, and even to its appendages. There is an abundant discharge from the womb, of a yellowish colour. There is a pain and a feeling of uneasiness in the pelvis, a bearing down and aching in the back. Sometimes the diseased part causes more or less profuse hæmorrhage. There are frequent attacks of floodings. The general health suffers in consequence. The patient becomes pale and nervous—often hysterical. The stomach

becomes deranged, the appetite is lost, the bowels confined. The patient becomes weaker ; she complains of headache and pains here and there over the body. She gives up taking exercise, feels unfit for exertion, and becomes a confirmed invalid, and is confined to her couch.

The treatment is much the same as that of simple abrasion.

*Rodent Ulcers.*—This is a disease of a much more severe character than the two former. It partakes of the character of cancer, inasmuch as it is malignant. Like malignant disease, it is rarely, though it is occasionally, met with in the young. It is a disease which makes slow progress. It is much less rapid in its course than true cancer. It affects the neck of the womb, and may extend along the surface, healing at one part while extending at another ; or it may eat deeply into the substance of the uterus.

The treatment consists in keeping up the general health—cod-liver oil, iron, rest, good food, and hip-baths. Strict cleanliness should be enjoined, for the discharges from it are of an acrid character. If there is pain, anodyne injections or pessaries containing opium, morphia, or belladonna, should be employed under proper advice.

*Subinvolution of the Womb after Delivery.*—During pregnancy the womb enlarges to several times its size



in the virgin state. After labour it weighs about a pound and a half, or even more. The process by which the organ is reduced to its original size is called "involution." This process should be accomplished in a month, or at most six weeks, after delivery. Sometimes it fails, or takes a longer time than usual; then involution is said to be impeded, and the womb to be in a state of "subinvolution." This is a condition very frequently met with, especially in the poorer classes of the inhabitants of large towns, as well as in those who live in luxury and ease.

Involution is accomplished in part by the muscular contractions of the womb itself, in part by absorption of the fat formed in the degenerated elements of the uterine tissue, in part by the discharge which escapes from the organ after delivery. Whenever any one of these three factors is interfered with, involution fails. There are numerous causes which arrest the proper changes in the womb after delivery, and give rise to subinvolution.

Amongst these the state of the general health plays a very important part. All exhausting diseases—as disease of the lungs, liver, or kidneys, fevers, scrofula—give rise to a general want of power in the system, a want of muscular power; the muscular system does not act with the vigour met with in health, and in such circumstances the womb after

delivery acts in a languid and feeble manner. This permits the organ to remain larger, less firm, and more flabby than natural; a greater quantity of blood is allowed to circulate, or, rather, to stagnate in it. This is in a high degree unfavourable to the occurrence of rapid healthy changes, and the consequence is that involution goes on slowly and imperfectly; the womb remains larger than it should be, and a low form of inflammation of the womb, with an abundant white and yellow discharge flowing from the organ, is the result.

During labour the neck of the womb is pressed upon by the head of the child, and in all cases that part is more or less bruised and lacerated. This natural condition greatly favours subinvolution, because it is a source of irritation, and tends to attract an increased flow of blood through the organ.

Rest is one of the most powerful agents in the treatment of disease, one of the most valuable aids in bringing about healthy changes. In the form of sleep it has aptly been designated "Nature's sweet restorer." The expression may not inappropriately be extended to all forms of rest, physical, mental, or functional. After the functional activity of pregnancy, the physical activity of labour, and the mental excitement associated therewith, rest—absolute rest of mind and body—is a most imperative want. Rest in bed for



at least a fortnight should be enjoyed by every young mother, and rest on the couch for a second fortnight. By this means alone many of the evils which follow pregnancy and labour may be avoided. Want of rest, too early getting up, and excitement are among the most common causes of subinvolution and the evils which follow it.

Want of food acts as a cause of arrest of involution in numberless cases amongst the poor of our large towns. They go for days during pregnancy without meat of any kind, and perhaps taste fresh meat once only in a week or a fortnight; and when their time of travail comes, it proves also a time of imperfect starvation. They have not the necessaries of life, much less the little delicacies which are acceptable to a woman at this time. Not only do they suffer from want of food, but want of rest comes in to aid it in its injurious influences, and the two are sure in their effects. This accounts for the exceeding frequency with which subinvolution is met with in the class of people named. Supply them with sufficiency of food, and the improvement in the condition of the subinvolted womb is marked and rapid. Fibrous tumours, polypus of the womb, and flooding—the two former uncommon, but the latter a frequent cause of imperfect involution—give rise to permanent enlargement of the womb. The two former are rare causes

of this disease, because it is not common for a woman who suffers from either of them to conceive or become pregnant. Flooding after delivery, however, is a frequent occurrence in the weakly, and a prolific cause of uterine disease.

Inflammation of the womb, or of the tissues surrounding the womb, sets an effectual stop to the changes which naturally take place in the recently emptied uterus.

The sympathy between the breasts and the womb is at all times manifest, but during pregnancy and after delivery in a more marked and palpable manner than at any other period. The secretion of milk and the act of suckling are favourable to the natural changes which take place during the lying-in month. Indeed, nursing is the most healthy stimulus to involution of the uterus; and it is an unfortunate occurrence when the breasts refuse to perform their natural function of secreting milk. Under such circumstances recovery is more tedious and less complete than when the breast functions are naturally performed. How much more injurious must it be, then, when the breasts act healthily and vigorously, secrete abundance of natural food for the infant, but the mother refuses to perform her duty! There is no doubt that the neglect of maternal duties in respect to suckling is a prolific cause of disease of the womb. On the other



hand, nursing may be over-done. It is not uncommon to see strong and healthy country women nursing their children for two or even three years, and it does not appear to do them any harm ; but this is owing to the native strength of their constitution, to the fresh air which they breathe, the plain nourishing food which they take, and the regular habits which they practise. Without all these it would be impossible for them to nurse for such a time without any grave and serious effects. The inhabitants of towns when they nurse for a long period—as they occasionally do—pay the penalty after the next pregnancy. Their system is soon enfeebled and exhausted. They cannot bear a prolonged drain upon it, and subinvolution and uterine disease is the inevitable result.

Subinvolution gives rise to pain in the back, bearing down on the pelvis, a feeling of exhaustion, and languor and lassitude, inability to walk, and unfitness for exertion. There is usually profuse whites and often profuse menstruation, or flooding. With these symptoms are frequently associated others due to the general state, as headache, giddiness, extreme general weakness, pains in the side, shortness of breath, palpitation, constipation, &c.

The treatment of this affection when undertaken early is favourable. It can, as a rule, be easily cured. If, however, it be allowed to go on unattended to for

months or years, then changes take place in the womb, which will remain more or less permanent in spite of all treatment. Hence the importance of early attention in those cases where the recovery after delivery has been imperfect.

The first requisite for cure is rest—especially after labour—rest in the recumbent posture. A good, plentiful, nutritious diet should be given. A little wine is very useful to help digestion in these cases. The bowels should be kept regular, and twice a day injections of warm or cold water, according to the nature of the case, should be made into the vagina. Tonic medicines are necessary to improve the blood and strength; bitters or acids and bitters to improve the appetite; then steel, or steel and quinine, will prove of great benefit. Should there be any active cause of the condition, as nursing, it should be stopped at once. If the discharges from the vagina be profuse, they should be arrested by injections of astringent substances, as decoctions of oak-bark, tannin, alum, &c. There are some medicines which act directly on the womb, and these prove occasionally useful. Of these the best, and the one usually given, is ergot of rye. It should be given in combination with iron. It is hardly necessary to add that fresh air and healthy surroundings are necessary to a rapid recovery. As soon as possible the patient should go

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for change of air and scene. This acts most beneficially upon the general health, and thus improves the tone of the whole of the muscular system, and favours involution.

*Inflammation of the Womb.*—Any part of the womb may become the seat of inflammation, the abdominal surface, the internal surface, or the whole tissue of the organ. It may be brought on suddenly, and then is said to be acute. This happens more frequently after labour than at any other time; indeed, acute inflammation of the virgin womb is of very rare occurrence; and when brought on, is due to foolishness or negligence. Its causes are suppression of the menses through exposure to cold at the time of menstruation, the use of cold or astringent injections at or about the time of the menstrual flow, and injuries from falls, blows, &c. The two first causes may, and ought to be, entirely avoided. A woman ought to know the time of the appearance of the menses, she should not be taken unawares, and should be prepared for their appearance. Unfortunately, however, the slight care and observation required for this is frequently not taken, and some, but by no means all, have to pay the penalty of carelessness in acute suffering.

The symptoms are stoppage of the flow, shivering, heat and pain in the pelvis, pain in the back and

thighs, bearing down, distension of the abdomen. There may be high fever, sickness, nausea, and painful micturition. The inflammation extends in some cases from the womb to the bowels; then there is great fever, acute pain, severe sickness, distension of the abdomen, shortness of breath, drawing up of the knees. The least movement of the patient, or the least pressure on the stomach, gives rise to the most intense suffering. This is a very dangerous disease, and may prove fatal.

*Treatment.*—Medical advice should be sought without delay. Meanwhile, hot applications, as linseed-meal poultices or fomentations, should be applied to the abdomen, injections of warm water to the vagina. The further treatment of the case depends upon the symptoms present. In some cases leeches or gentle purgatives may be needed. In others warm hip-baths, and in others leeches to the abdomen and fundament; while in some cases opium is of the greatest use. But inflammation of the womb does not always come on suddenly. It comes on insidiously, and the sufferer is not aware of it until it has existed for some time and has become thoroughly established; or having set in as an acute attack, it does not entirely pass off, but slides into a milder form, which remains for a longer or shorter period. It is then called chronic inflammation. At first this form,



when it comes on insidiously, gives rise to few, if any, symptoms. It is certain, at any rate, that these are so slight that they do not attract the attention of the woman. One of the first things that excites suspicion of something wrong is a leucorrhœal discharge—the “whites”—and this is allowed to go on without treatment for months or even years. This discharge may be viscid, sticky, transparent, like white of egg; or it may be a thick, yellowish, or greenish fluid, like matter; or it may be a thin, watery, pale fluid, having most irritant properties—giving rise to inflammation and excoriation of the external parts and upper parts of the thighs. Just before and after the monthly flux the discharge may disappear or be greatly increased in quantity. The menses may be accompanied by much pain, the discharge being profuse and clotty. In time the womb becomes tender, increases in size and weight, and sinks in the cavity of the pelvis. There is a feeling of heat and pain in the bottom of the stomach, bearing down, and a sense of fulness, dragging in the back, loins, and thighs, and sometimes sharp pains in the womb itself. The bladder also suffers; there is pain, and constant desire to pass water, sometimes there is difficulty in micturition. The bowels suffer in a similar manner; there is a forcing in that situation, frequent desire to go to stool, and pain with it. Walking becomes painful.



In course of time the general health suffers, the appetite fails, vomiting sets in, the bowels become constipated, there is headache, giddiness, pain in left side, and deterioration of the blood due to imperfect action of the stomach. Menstruation becomes painful and profuse, general nervous symptoms set in, neuralgic pains in various parts of the body, and confirmed hysteria.

The causes of this condition are, in the first place, those which produce the acute form—exposure to cold during a menstrual flow, either from washing in cold water, getting wet, or getting the feet wet, or simply insufficient clothing; irregular appearance of the menses seems to give rise to it also; over-exertion during the menstrual flow; displacements of the womb, abortions, miscarriages, and labour, and the subinvolution which follows them.

When attended to early, the disease is easily cured; but in most instances, as is usual in diseases of the womb, it has existed for a long time before anything is done to alleviate or cure it. Indeed, owing to the insidious manner of its early course, it is often not possible to take it at the start, and consequently treatment is often required for a long period. One of the most important agents in the treatment is rest. The sufferer should lie in the recumbent posture. It is not necessary for her to lie in bed, but she



should be moved during the day from the bed to the couch. She should not stand on her feet or walk about—this always aggravates the suffering. The bowels should be well regulated. Nothing is better for this purpose than saline aperients. Epsom salts are perhaps the best of all. They tend to relieve congestion. They can be regulated according to the patient's wants. The taste is offensive, but it can be pretty well disguised by the addition of a little syrup of lemon. Mineral waters are of service, and a sojourn in one of the English or foreign watering-places will in some cases effect a cure. The diet should be good, nourishing, easily digestible. Malt and spirituous liquors, or wine, should be avoided, or taken sparingly, as they seem to have an unfavourable influence on the congested womb. Light wines are the best when necessary. They should be taken for the sake of the digestion only; when the stomach performs its work efficiently they should be avoided. Unfortunately, it is rarely that the digestion is good, especially when the disease has lasted some time, and the use of wines becomes then necessary.

There is no medicine which has a direct and specific influence on the inflammation. But the general troubles associated with the condition should be met by acids and bitters, or, in some cases, soda, with bitters to improve the appetite, and then by tonic

medicines to improve the state of the blood. Quinine, gentian, calumba, and iron are all useful in their turn. Local treatment is also usually necessary in these cases. Leeches to the fundament, or to the womb itself, or the withdrawal of a little blood from the uterus, applications of caustics, astringents, absorbents, or alteratives to the neck, or to the interior of the womb, may become necessary. Injections of hot or cold water, according to the individual case, may prove useful; or, if there be pain, injections of solutions containing soothing or anodyne substances, as opium, or pessaries containing opium, henbane, or belladonna. None of these, however, should be used except under medical advice.

*Inversion of the Uterus.*—In this disease the womb is turned inside out, and lies in the canal of the vagina, or projects outside the vulva. It may be complete, or only imperfect. It is a rare affection, and is usually brought about suddenly after labour, as the after-birth is born, or gradually through a dragging on the inside of the organ by a polypus attached to it. When it comes on suddenly, as after labour, the patient has pain, feels faint, violent flooding sets in, the patient becomes collapsed, and, unless relieved at once, death may ensue. When it comes on gradually, it is due to the expulsion of a polypus, and consequent dragging on the womb. Then there



is flooding, occasional or continuous; pain in the back, loins, and pelvis; walking is difficult; pain and difficulty at stool and in making water. When these symptoms have lasted some time, the constitution begins to sink. The continual loss of blood and pain depreciate the state of the blood, the appetite fails, the woman becomes pale, thin, and suffers from all the evils attendant upon a watery condition of the blood.

The condition of the womb can be recognised only by a careful examination of the organ.

When the womb is inverted suddenly after labour, attempts should at once be made to return it to its proper position, and in most cases these are successful. Even when it has been out of position for a long time, similar attempts with the same object should be made. In the latter case, however, there are many difficulties to be overcome, for the organ has become reduced to nearly its usual size, and its tissues have become hardened, and consequently the resistance to re-position is very great. By long patience, however, and by pressure exercised on the inverted part for a protracted time, these difficulties have been overcome in some cases which had appeared hopeless. This has been accomplished by the introduction of an elastic ball into the vagina, which, after its introduction, was distended with air, and

the exercise of continuous elastic pressure on the inverted part ultimately caused it to resume its natural position. Reduction of the inverted womb usually demands the greatest skill.

When this has quite failed, the bleeding which takes place from the inverted surface should be checked. The whole of the tumour should be bathed in an astringent solution, as of alum, tannin, acetate of lead, and surrounded with strips of lint soaked in one of these solutions; or in some cases strong caustics may be used, and it is said that these not only check the hæmorrhage, but reduce the bulk of the inverted organ—a result greatly to be wished.

When the inverted womb cannot be returned, and when the hæmorrhage becomes so obstinate as to threaten life, then, as a last resort, the organ has been removed. This operation has been performed several times with success; at the same time it is fraught with such danger to life that it should be resorted to only as a last chance of prolonging life.

*Hæmorrhage in the Neighbourhood of the Womb, into the Cavity of the Belly, or into the Tissues.*—Blood may be poured out in this situation from a number of sources. It is due generally to rupture of some small blood-vessels, or to blood disease. It usually happens between the age of fifteen and forty-five, more often about the time of menstruation than



at any other. Pale, weakly women and stout women are said to be more liable to it than others. It is caused by violent efforts at the time of the menstrual flow, violence from falls or blows, and disease giving rise to an impoverished state of the blood.

It begins usually with a heavy dull pain in either groin, and a profuse menstruation or flooding. The menstrual flow often lasts a much longer time than usual. Then a sudden sharp severe pain is felt in the bottom of the stomach, the woman turns pale, faints, and becomes cold; soon she vomits. If this happen during menstruation, the flow may be completely arrested, or a profuse flooding may set in. There is bearing down in the pelvis, and forcing in the bladder and bowel. Sometimes there is difficulty, or even inability, to pass water or stool. The patient has a sense of weight in the bottom of the stomach, as if a heavy body were present in that situation. The abdomen becomes blown up with flatulence.

These symptoms pass off after a longer or shorter time, and symptoms of reaction set in. From the loss of blood and the sudden shock, the patient is naturally weak and exhausted. She is pale, often extremely pale—blanched. She soon becomes feverish, she is chilly, or may have slight shivering, the skin is hot, there is thirst. The tongue is foul, and the mouth dry. The bowels are confined, in some cases

obstinately so, owing to the obstruction caused by the pressure of the effused blood on the bowel. There may be frequent desire to pass water, or entire suppression. The bleeding is in some cases so great as to give rise to a tumour extending up as far as the navel. This is smooth, with usually an uneven upper border. There is pain and tenderness over the lower part of the belly.

It is a disease which rarely proves fatal. Most cases recover, though in some bad cases death has resulted from the loss of blood.

*Treatment.*—When the symptoms first set in, perfect rest should be at once secured. The sufferer should lie on the back in bed, and cold be applied to the lower part of the abdomen. Should there be any sickness, ice should be sucked. If the sufferer be very faint, stimulants should be administered, as champagne, brandy, or ammonia. Medical advice should be sought at once. Opium is of great service in this condition, but it is a drug that requires great care in its administration. When the stage of hæmorrhage and collapse is over and reaction has set in, the worst is generally past, though the illness may still prove protracted; yet there will be but little doubt as to the issue, provided the patient submits to be treated. Rest is a most essential condition of rapid recovery. A quantity of blood, varying in amount, has been



poured out of the vessels, and this is to be absorbed. This is a slow process, but it is surprising with what rapidity it will go on under favourable conditions. Rest is necessary not only to favour absorption, but to prevent inflammation and a further pouring out of blood by disturbing the parts. Movement may cause a considerable increase in the size of the tumour formed by the effused blood, and it may do this at any part of the process of recovery, and therefore rest should be secured with scrupulous care. This alone is in some cases sufficient treatment. Others require both local and general means to ensure a rapid recovery. Counter-irritation of the lower parts of the abdomen, by means of blisters or of a solution of iodine, is of great use. Both these act favourably in dispersing or in exciting absorption of the hæmorrhagic tumour. Blisters should be frequently repeated, and allowed to heal rapidly, or if a solution of iodine be preferred, the skin should be constantly kept sore with it. Sometimes the tumour, instead of becoming solid, remains fluid, or forms an abscess. In such cases it is not unusual to open it, and make an exit for the fluid or matter it contains.

The diet should be good, easily digestible, and sufficient. A little stimulant is useful—a small quantity of wine or brandy. Tonics, after the febrile condition has passed, are administered with a view

to improve the stomach, the blood, and increase the strength, and in this way to hasten the process of absorption. The bowels should be kept open, the bladder emptied by means of a catheter if there be retention of urine. Pain should be alleviated by opiates.

Occasionally profuse flooding has taken place at puberty, the menses making their first appearance as an abundant hæmorrhage. These cases are not very uncommon, but it is rare for such bleeding to be so profuse as to prove fatal, yet in some instances that has happened.

During the change of life, on the other hand, floodings are exceedingly common; and the time called the "dodging-time" is to most women a time of anxiety. The complete cessation of the menstrual function sometimes takes place quite suddenly. The woman is regular every month; the amount of the flow and its character are normal. It appears at the usual time, but never afterwards. The function has ceased. In other cases, again, the flow appears regularly from month to month, but in decreasing quantity, until it disappears entirely. In a third class of cases the flow becomes irregular; it is absent for two or three months, and then reappears again, then disappears for some time, then returns as a profuse flooding. It may go on in this manner for months, or even years,



the flooding lasting at times for weeks, and proving a source of grave danger.

A number of other symptoms make their appearance about this time—symptoms of nervous derangement and of disorders of the stomach and intestines. Headache, pains here and there over the body of a neuralgic character, depression of spirits, a gloomy state, irritability, loss of memory, forgetfulness, and waywardness, are now and then seen at this period of life.

One of the most peculiar occurrences of this period is the conviction of the existence of pregnancy acquired by women, when no such state is present. This has been called spurious pregnancy. It is seen not at this period of life alone, but at any other time after twenty or twenty-five. Women who have had several children are sometimes mistaken in this way, and it is not easy to convince them of their error. It is due to the nervous state present, and to disorders of the stomach and bowels. Constipation is frequently present, and when already acquired becomes aggravated. There is a tendency in many to become fat and stout. Flatulence and flooding are very common causes of complaint at this time. This period of life has always been regarded as in some sense critical, and rightly so. Certain diseases take a favourable, others an unfavourable, turn at this epoch. Some diseases disappear,

while others start into existence. If a woman passes through this stage of life in a favourable manner, she has good reason to expect fair health afterwards; she may be said to take a new lease of life.

*Treatment.*—The treatment of the troubles of this period are careful dietetic and hygienic measures. The diet should be plain and simple—meat once a day: fish, meat, game, poultry, with bread, vegetables, and fruit. Beer and spirits should be avoided, and wine taken very sparingly. The bowels should be regulated. A blue pill occasionally, with a saline draught on the following morning, is of service, for the liver acts sluggishly. Indeed, all the secreting organs are somewhat inactive in the performance of their functions. Friedrichshall, Pullna waters, Carlsbad and Vichy salts are very useful, and in some cases should be regularly used. In some robust and plethoric women a few leeches, or occasional cupping, or even a general bleeding, may occasionally be called for. For the nervous symptoms sedatives are recommended, especially the bromide of potassium.



## CHAPTER IV.

DISORDERS OF MENSTRUATION (*continued*).

Painful Menstruation, or Dysmenorrhœa—Neuralgia of the Womb  
 —Congestion and Inflammation—Displacements of the Womb  
 —Flexions—Membranes expelled during Menstruation—Pain  
 in the Groin.

IN some women menstruation is a painless process. The flow comes unawares to them. This is probably the natural and healthy performance of the function. The greater number of women, however, suffer more or less discomfort—backache, headache, lassitude, and languor. In other cases, again, and they are by no means uncommon, the pain accompanying the performance of the menstrual function is severe. It varies in severity in different subjects; indeed, no two suffer exactly alike; the pain may be tolerable, or it may amount to the most excruciating agony. The pain comes on with the appearance of the discharge, and continues throughout the duration of the flow; or it may set in a few hours or a day before the discharge, and then it reaches its greatest intensity about the time the discharge reaches the outlet, continuing for the first day or two, and then subsiding. The causes of this pain often elude our investigation.

It is present when the flow is scanty, as well as in cases where it is abundant; when nothing unnatural is discoverable in the womb as well as when that organ is obviously diseased. There is no doubt that the cause varies in different cases. In some it is believed to be neuralgia of the womb; in others, congestion and inflammation; in others, obstruction to the flow and displacement of the womb; in other cases it is due to the formation and expulsion of a membrane; while, lastly, it may be due to disease in the neighbouring organs.

The pain is usually of a bearing-down character; it begins or centres in the bottom of the stomach, and spreads to the groins, loins, back, sacrum, and down the thighs. It is sometimes compared to the pains of labour. It is often complicated by urinary troubles, as frequent and difficult micturition, and forcing in the bladder, and with bearing down in the bowel.

Neuralgia is an affection of the nerves, and comes and goes by fits or paroxysms. Many parts of the body are subject to it, as the face, the loins, the left side, the back, the thighs, as well as the womb. It is sometimes a most agonising pain, lasting for a considerable time; at other times it is a piercing, darting, or lancinating feeling. When the womb is subject to it, it manifests itself only about the menstrual periods. The pain is not limited to the womb; the skin of the



lower part of the belly and upper part of the thighs is tender, sometimes exquisitely so. The menstrual flow appears scantily at first, then more freely, and then relief is usually experienced; more commonly, however, the flow comes only scantily, and in gushes, then it stops altogether for a time, or is reduced to a mere stain; there is again a return of the pain, and another gush of blood follows. In this manner it goes on for a part or for the whole of its duration. After the flow has ceased the patient recovers, to go through similar suffering with the return of the period. When this has gone on for some time, for years, the general system becomes affected. The patient becomes nervous and hysterical, suffers from flatulence, sickness, and obstinate constipation; has pains here and there over the body, headache, feels chilly, and is generally depressed both in mind and body.

It runs a protracted course, lasts for years. It is generally difficult to cure. Before the appearance of the flow, when the pain first sets in, a hot hip-bath should be used. The water should be as hot as the patient can bear, and she should sit in it for half an hour or an hour. Narcotics are given to relieve the pain, should it continue. They should be used as pessaries.

During the intervals the general health should be attended to. Bark and acids, cod-liver oil and iron,

are often beneficial. Quinine in some cases does good. Constipation should be warded off by gentle purgatives, of which the mineral waters are the best. Fresh air, exercise, walking, riding or driving, and early hours are valuable and necessary for recovery. Pregnancy will often, but not always, cure this disease.

The affection is sometimes seen in people of a gouty or rheumatic tendency. In such cases treatment should be directed to alleviate these conditions. Spasms of the wall of the womb are said to be associated with neuralgia. It is supposed that the narrow portion of the womb between the neck and the body becomes spasmodically contracted, and that at the time of contraction it retains the menstrual blood in the cavity of the womb, and when it becomes relaxed again the flow reappears in a gush. The treatment of this form is similar to that of neuralgia.

Congestion and inflammation of the womb are, as has already been described in treating of flooding, of frequent occurrence. They are often associated with inflammation in some of the tissues of the pelvis. The pain comes on several days before the appearance of the menstrual flow. The flow is at first scanty; after a day or two it becomes more abundant, but the pain continues more or less throughout. The discharge often contains small coagula of blood and shreds of membrane, or "bits of flesh," as they are often called



by patients. There is pain in the back, bearing down, aching of groins and thighs, a tired feeling, lassitude, and often sickness. The womb is often tender on pressure, the breasts swell and become tender and painful, there is irritability of the bladder and bowels, and generally a yellow discharge—the whites.

Hot hip-baths are useful, leeches to the fundament or the womb; during the interval, injections of hot water; plain living, moderate walking exercise, regulation of the bowels, and rest.

Obstruction to the free escape of the menstrual discharge is another cause of painful menstruation; and it is, perhaps, the most common of all. Moreover, it is not only the most frequent, but it is also the most easily relieved. The obstruction may arise from a number of causes, such as constriction of some part or the whole of the canal of the uterus, displacement, or displacement and bending or flexion of the uterus, tumours of various kinds.

Painful menstruation arising from narrowing of the canal of the womb is said to be not uncommon. This condition may be the original condition of the womb, a congenital one, or it may be acquired through the effects of inflammation after labour, or any injury. The pain due to it is severe. The discharge is scanty, escapes in gushes usually, each gush being accompanied by severe bearing-down pain, and followed by relief.

There is backache, constipation, nausea, and vomiting; there is flatulence, and often tenderness over the lower part of the abdomen and groins. It is only possible to recognise the condition after a careful examination of the womb itself. It is not possible to make sure of it from the symptoms alone.

The object of treatment in such cases is to enlarge the canal of the womb, so as to make it sufficiently capacious to permit the easy escape of the menstrual blood. This has been effected by various means. Instruments called bougies have been passed along the canal of the womb through the narrow part. These should be sufficiently large to stretch it; sea-tangle and sponge-tents are used for the same purpose; or the opening may be enlarged by incision. These three methods are useful and suitable in different cases. The last is more permanent in its effects than the other two. Medicines have no effect on the condition in question, but still medication is often useful, because for a time the monthly sufferings of the woman give rise to constitutional disturbance, and bring on a train of symptoms similar to those described in the preceding paragraphs.

*Displacements of the Womb* frequently give rise to painful and also to profuse menstruation. In this place we will describe, as well as the true displacements of the womb, certain conditions which simulate



them, and which are constantly mistaken by women for them.

The womb is liable to be displaced in various directions. Upwards, by tumours pulling or pushing it; there are no symptoms connected with this form except those arising from its cause. To either side, from presence of tumours, or the contraction of inflammatory products; these, again, have no peculiar symptoms or treatment of their own. One of the most common forms of displacement is downwards. It is called falling of the womb. But women frequently say they have falling of the womb, that the womb comes outside, when such is not really the case. They find a smooth body bulging out through the mouth of the vagina, and they conclude it to be the fallen womb. There are other parts, however, which may fall down and bulge out in this manner, and these frequently complicate true falling of the uterus. The wall of the passage or vagina may be turned out, and form a considerable tumour. The anterior wall alone may fall, or the posterior alone, or both together. When the anterior wall is the part thus affected, the condition is called cystocele; when the posterior with the intestinal wall, it is called rectocele. These two conditions we will first describe, as they are so frequently mistaken by women for falling of the womb itself.

The walls of the vagina are attached—the anterior to the bladder, and the posterior to the bowel—by very firm and close-uniting tissue. For this reason it is not easy for the wall of the vagina alone to become the subject of prolapsus or falling; yet occasionally this happens. The far more common condition, however, is for the wall of the bladder or of the bowel, or both, to participate in the fall of the vagina.

Whatever increases the capacity of the vaginal canal, or the dimensions of its walls, or the size of its opening, or renders their tissues loose and soft, may give rise to the conditions now spoken of. Of course, pregnancy and labour are by far the most common causes of such a condition. Pregnancy induces laxity, softness, and enlargement of the vaginal wall, and of all the tissues in its neighbourhood. Labour—the passage of the child—gives rise to immense distension of the canal, and frequently to tearing or laceration of the band of muscles around its orifice, and which forms the chief support of the vagina, the anterior portion of the perinæum.

The displacement may come on suddenly, or by violent efforts, by falls, straining, lifting, and by anything which calls forth violent muscular action. More usually, however, this affection comes on gradually. The person has had several children. She has not completely recovered after her later confinements.



She has had a sense of weight in the parts, a bearing down, occasional trouble with the water, perhaps some difficulty in walking or standing long, but it has not been such as to attract particular notice. The womb has remained larger and heavier than it should be after labour, and the vagina more capacious or more relaxed ; perhaps the perinæum has been slightly torn also. Another pregnancy and another confinement take place, and the consequence is that the fall of the vagina becomes marked. A portion of it is seen and felt in the shape of a round, smooth, soft swelling projecting through the vaginal orifice, and causes no little inconvenience.

Whites, or leucorrhœa, favour the production of this form of displacement. These discharges are rarely present for a long period without causing considerable relaxation of the vaginal wall and the parts around, and thus gradually pave the way for the falling of the part.

This condition is seen also in old people. In them the fat and padding around the vagina have been absorbed, the muscles are relaxed, the tissues are withered and wasted, they are unable to support the weight of the abdominal viscera, they yield, and the vaginal wall bulges out.

The symptoms of this affection are sometimes slight, sometimes severe in character. When the

vaginal wall alone falls, there is a sense of weight and bearing down, a feeling as if something was coming away. There is a feeling of discomfort, and a difficulty in walking or standing. When the anterior wall of the vagina and the bladder are prolapsed, then there is in addition difficulty in micturition, the patient sometimes quite fails in her efforts to pass urine: she lies down, pushes the projecting swelling up, and then perhaps she can relieve herself. But even this expedient may fail; then the doctor is called, and the urine has to be drawn by an instrument. When there is difficult micturition the patient rarely empties her bladder entirely at any time. There is a little pouch of the bladder in the descended swelling which always retains a small quantity of urine; this decomposes, becomes offensive, sets up inflammation of the bladder; the patient now complains of pain, heat, forcing in the bladder, and scalding during micturition. By habitual care to empty the bladder completely, however, the condition last described may be avoided.

Instead of or as well as the bladder, the rectum or lower bowel may be dragged down by the vagina. When this happens, the bowel is affected as well as the bladder. A pouch is formed just within the opening of the rectum, which bulges out beyond the surface. This pouch is liable to become filled with



faecal matter. The bowels cannot be completely emptied. Irritation of the part is set up; inflammation in the lining of the membrane of the gut follows, diarrhoea may set in of a mucous character, or obstinate constipation and great dilatation of the rectum may result; bleeding piles and ulceration are not unfrequent consequences. These changes in the bowel cause the patient the most varied troubles; the pain from the piles and ulceration is frequently excruciating; hæmorrhage takes place from the bowel, and there is a constant desire to go to stool and a severe bearing down.

These diseases can be easily recognised when care is taken in the examination. They should never be mistaken for anything else. When there is a falling of the anterior wall of the vagina, an instrument should be introduced into the bladder, and this cannot fail to show whether the latter organ is prolapsed or not.

When the posterior wall of the vagina is prolapsed, the finger should be introduced into the bowel, and search be made for the pouch characteristic of prolapse of the rectum. If this be found—as it cannot fail to be if present—the diagnosis is certain.

*Treatment.*—The treatment of these conditions is of great importance. Every effort should be made to cure, and not simply relieve the condition. To effect a cure a complete change in the condition of the parts

must be brought about. This may in many cases be effected by rest, and applications in the form of injections or medicated pessaries. The applications used for this purpose are those which have a contracting or astringent action on the walls of the blood-vessels. They may be used in solution, and then are injected into the passage; or they may be used in the solid form, and in that case they are mixed with a substance which dissolves readily when exposed to a temperature of  $99^{\circ}$ , or blood heat. The substance most commonly used is cacao butter; others have been recommended and used, such as jellies; but none are so efficient as the cacao butter. The astringents used as injections are alum, lead, oak-bark, sulphate of zinc, tannic or gallic acid. All these are efficient in their turn. Any one of these should not be used for a prolonged time, because the parts appear to become accustomed to its action. It is advisable, therefore, to vary the preparations and drugs used when their use for a long period is necessary. These means, however, frequently fail, and others become necessary. Of these means instruments called pessaries are most generally in use. They are made of a variety of materials, and should be of the size and shape to suit the individual case. They should not be worn for any time without being frequently seen to. It is true that women often wear them for months and even



years without suffering any great injury, but in many cases the injuries arising from such careless and reprehensible conduct is very great. A person wearing a pessary ought to have it seen to frequently at first, and when it is found to be suitable, it should be examined every three or four months at least. These instruments, however, never effect a cure. Once a pessary is used for this affection, it will have to be used for life. In some cases also it is not possible to construct an instrument which attains the object of retaining the part in position. Such cases can only be treated by operation. Operative measures must be so devised as to meet the peculiarity of the case.

There is one other means which often gives great relief in these cases. It is the T bandage. The method of applying this useful support has already been described. It gives so much support to the perinæum, that it retains the parts from bulging out. The pad should be thick and well formed, so as to support the part uniformly and sit easily. Much may be done in this manner to relieve these troubles or affections without having recourse to an operation for their radical cure.

*Prolapsus of the Uterus*, or falling of the womb, is a disease frequently met with. It is usually seen in those who have borne children, but has been discovered in those who have not. It may come on gradually,

or all at once. A very severe strain, or a sudden fall, or a fit of convulsions may be the cause of the affection coming on suddenly. In the great majority of cases, however, the cause acts slowly. The woman is a mother. She has had several children perhaps. The tissues supporting the womb have been relaxed and stretched at each birth for the passage of the child. After labour the patient has not the amount of rest necessary for the parts to return to their usual state. She has been obliged to get up too early, had to attend to the household duties. The result is a permanently relaxed state of the tissues supporting the womb. This is only one instance of the manner in which this condition of the parts may be brought about. There are other numerous causes, as want of food, over-nursing, a feeble constitution, &c.

Again, the perinæum may be torn during labour, as the head is born. The part is one of the chief supports of the vagina and womb, and any considerable laceration of it almost inevitably leads to falling of the womb.

Enlargement of the womb, provided it be not too large to descend through the pelvis, is another fertile cause of descent of the organ. This enlargement may be due to subinvolution, or a failure on the part of the womb to return to its normal state after labour, to inflammation and tumours of the womb.



Tumours in the neighbourhood may press it downwards, and the vagina may drag it downwards, but by far the most common are the conditions superinduced after labour.

It is met with also in old women, and in these cases the manner of its production is peculiar. In such cases the womb is usually small, it is atrophoid, its weight is small, for the organ is not much bigger than that of a child. In such people the fat which lies under the skin is absorbed, it disappears, and the skin becomes too large, loose, wrinkled. In a similar manner the fat around the internal organs is removed. The fatty pad found in the pelvis, around the vagina, bladder, appendages of the uterus, and the rectum, is removed. In this way the cavity of the pelvis appears larger, and as far as the uterus is concerned is actually larger, and as a consequence the womb descends.

The descent varies in degree. It may fall slightly only in the pelvis, or it may come down as far as the orifice of the vagina, and often it is found entirely outside, hanging down between the thighs.

The symptoms of this affection are by no means enough to characterise the disease, and examination alone is sufficient for the diagnosis. Women subject to prolapsus generally complain of pain in the back. This pain is at the bottom of the back. It is to continuous dull aching. This is a very common

symptom of uterine disorder. The whites is not a rare accompaniment of this form of displacement. The vessels leading to the womb, and the tissues around it, are constricted in consequence of the displacement, and the organ becomes congested and enlarged. Menstruation may be natural, but it is occasionally very profuse and painful.

The actions of the bowel and bladder are interfered with. There may be difficulty at stool or in micturition, and very frequently there is great forcing both in the bowel and in the urinary bladder.

Inability or difficulty in walking is another symptom in these cases. The patient may be quite unable to walk, or they can walk for short distances, but with pain and fatigue. Excessive fatigue after little exertion—fatigue in utter disproportion to the exertion made—is frequently complained of by those suffering from uterine troubles.

When the womb has been outside for some time the soft red mucous membrane covering the vagina becomes altered. The constant exposure, and the irritation to which it is subject, change its appearance and character. It becomes pale, harder, and more like the skin of the body. Ulcers also form on parts of it. These are sometimes deep and sharply defined. They are found in the situations most exposed to rubbing and other irritation. The neck of the



womb itself is frequently the seat of one of these ulcers.

*Treatment.*—The womb should be replaced, and maintained in position. As a rule, there is no great difficulty in replacing the organ; but sometimes the difficulty in effecting this is extreme, and requires the greatest skill in manipulation. In replacing the womb the patient should be lying down on the side, or, better still, on the knees, with the shoulders low down, and then the protruding womb seized and gradually pressed upwards into its normal situation. In some instances it has been necessary to put the patient under chloroform, or some other anæsthetic, in order to attain this object. By this means all resistance, straining, and movement on her part are removed, and the muscles of the abdomen and chest are rendered lax, so that the object can be more easily gained. When the uterus has been replaced, the next object is to keep and maintain it there—to prevent its falling down again. This may be done in various ways.

In this connection a question of considerable importance arises, and that is the female dress. The clothes which women wear are supported by being tied round the waist. In some cases they are very tightly drawn around that part; but, fortunately, the absurd and wicked fashion of tight lacing no longer exists as in former days. But still, much mischief is done

even now by tying the clothes round the waist in the manner usually adopted. The effect of this bad fashion is to increase the weight upon the lower wall of the belly. The intestines are pressed downwards upon the womb, and the perinæum and vagina have to do extra work. When this has been going on for years, and in favourable conditions, falling of the womb is necessarily brought about. The first thing to do, then, is to have the clothes properly made, and instead of being tied round the waist, they should be suspended from the shoulders.

· If the patient can rest on the couch, without walking or making any effort, and if the disease is recent, a cure can often be effected by appropriate treatment; but if the disease is of old standing, and the patient cannot lie up, the means of treatment are palliative only.

There is another disease of the womb which simulates in many points descent of that organ—that is, elongation and enlargement of its lower portion, which is called the neck, or cervix. Cases of this are by no means uncommon. It occurs at all ages, in the married and the single, in those who have had children and those who are barren. It is, however, oftener met with in married women. Women generally believe it is a true falling of the womb, and it requires a careful examination in order to recognise the true



nature of the affection. The length of the elongated part may be such as to project at the orifice of the vagina, or it may only fill that passage like a polypus, or a foreign body. It is hard, smooth, and conical, with a hole at the most prominent part. The womb is longer and larger than usual. The woman complains of weight, bearing down, and discomfort in the bottom of the stomach. She is unable to sit without pain, the enlarged part being pressed upon. Whites are usually present. Menstruation is profuse, and often painful.

In some cases removal is the only effectual remedy. The operation is simple, and devoid of danger. When this has been done, the enlarged upper part of the uterus generally diminishes in size. In other cases, removal of the whole of the elongated part is not possible; but a portion of it may be removed, and this is often sufficient to effect a cure. Before this is attempted, however, rest, with general and local treatment, should be tried. The general health should be regulated, and the tonic applications described under falling of the womb should be used. These all afford relief, if not a complete cure. When these fail, operative means should be resorted to.

*Displacement, with Change of Shape, or Bending of the Womb.*—These are called flexions of the uterus. The organ is bent or doubled on itself. When the

bend is forward, it is called anteflexion; when backward, retroflexion.

An inclination forward, with even a slight bend or curvature, is the normal position and shape of the womb in the virgin.

Flexion backwards, or retroflexion, is never a healthy and proper position of the womb. During early pregnancy the womb sinks in the pelvis, and is inclined slightly backward, but not bent in that direction. Later, as the womb grows larger, it loses that position, and becomes inclined forward, and maintains the latter position until the end of pregnancy. Slight anteflexion, as already stated, is a normal condition in the virgin; when it, however, becomes marked, it is disease. It is not unfrequently met with in a marked degree in the single as well as in the married. Retroflexion, or bending backward, on the other hand, is a rare affection in young girls, but more common in those who have borne children.

The symptoms vary somewhat, according as the womb is bent forwards or backwards; but they are not sufficiently distinct to distinguish one from the other. A careful examination of the womb itself can alone supply evidence sufficient for that. Usually there is severe pain in the bottom of the back, bearing down in the pelvis, pain in the groins and down the



thighs, dragging at the navel, pain at stool, painful micturition, or micturition may be difficult or quite impossible, and painful menstruation. The menstrual discharge is often profuse, sometimes amounting to a flooding. The discharge is clotty, and often comes away in gushes. The pains accompanying this function are sometimes like those of labour. When conception takes place, abortion is likely to follow about the third or fourth month. Conception, however, rarely takes place, and the majority of women suffering with this form of displacement are sterile. There is usually a white or yellow discharge between the menstrual epochs. The general health becomes affected, as it does, sooner or later, in most persons affected with disease of the womb. The appetite is lost, the digestion enfeebled, the blood becomes watery, nutrition imperfect, nervous symptoms now set in, and the patient ultimately may become hysterical. The pain in the back and pelvis becomes aggravated in walking or standing, and the patient is unable to walk. She consequently lounges about, and becomes a confirmed invalid. The causes of these forms of displacement are bad general health, want of tone in all the tissues of the body, congestion and inflammation of the womb, enlargement of the womb, pregnancy, labour, and abortion. Abortion is a very frequent cause, for the reason that it is too commonly regarded

by women as an occurrence of but slight importance, and during the whole time they go about doing their household or other duties; or, if they are compelled to rest for some time, they get up before the womb has had time to return to its normal healthy state. Pregnancy in the poor is equally productive of the affection under consideration, for they are obliged to get up much before the time of complete involution of the uterus. Tumours of any kind pressing on or dragging the womb, as fibroid tumours, or osseous tumours, &c., give rise to flexions by their mechanical effects. Violent efforts, as in lifting, over-reaching, straining, vomiting, falls on the buttocks or pelvis, and tight clothing, may also bring on flexion. Many cases of flexion, however, are congenital; the womb was born in a bent state.

*Treatment.*—The object is to reduce the displacement and straighten the womb, and maintain it afterwards in its normal position. In some recent cases, and cases in which the displacement has been suddenly brought about by violence of some kind, simply straightening the organ and placing it in the normal position, suffices to effect a cure. Such cases are, however, exceedingly rare. Usually, when medical advice is sought, the patient has suffered for months, or perhaps years, and the womb has become accustomed to its abnormal position; and in some cases



inflammation has been set up around it, and bound it down by false membranes in that situation. When this is the case, when the organ is straightened and replaced, it immediately falls back again to the old position. Such cases are very difficult of treatment, and require a long time for recovery. The first object should be to replace the womb in its natural position. This is done by the hand if possible; should this be impossible, instruments have been devised for the purpose.

After the organ has been replaced, means should be adopted to retain it there. These are several:—

Rest. This, in many cases, is absolutely essential. The patient should remain in bed, especially when there is inflammation around the displaced organ. If there be congestion or inflammation and great tenderness of the uterus, leeches and the treatment described under the head of inflammation may be called for.

While resting, the woman should lie on her face if she suffer from retroflexion, and on her back if from anteflexion. Lying on the face is, as one would fancy, a rather irksome position; but by a little management and arrangement of pillows it may easily be rendered quite tolerable.

All pressure should be removed from the abdomen. When the patient rests in bed, of course this will follow in the course of things. When, however, she

is up and about, it is far less likely to be the case. Women's clothes consist of heavy skirts, supported by the hips. In some cases tight stays are often worn so tight as to produce evil effects, by contracting the lower part of the chest and upper part of the abdomen, thus giving rise to imperfect respiration and crowding of the intestines in the lower part of the body. This occasions pressure on the womb, tends to displace it, to maintain it in an abnormal position, and is unfavourable to its restoration to its normal situation. To avoid these, two things may be done, the clothes may be suspended from the shoulders, and an abdominal supporter should be worn. The clothes may, by a very simple arrangement, be slung from the shoulders, and in this manner the abdomen be freed from their weight.

An abdominal supporter should be worn with the view of taking the weight of the abdominal viscera from the uterus. It is especially useful to women when the abdominal walls are lax and yielding, as they so frequently are after repeated pregnancies. It should consist of a belt of webbing, with strong elastic let into it at the sides. The belt should fit tightly round the hips. To the part of it which goes over the lower part of the abdomen a broad pad, stiffened by means of cork or a thin sheet of steel, should be attached. The pad should be about four inches square,



and should fit the lower part of the abdomen below the navel. These means—which have the result of the removing of the weight of the clothes from the abdomen, and the abdominal supporter—are found to give, in many cases, great relief. They are, however, not efficient to maintain the womb in its normal position. They simply relieve it from causes which act unfavourably upon it.

To maintain the organ in the restored shape, certain instruments called pessaries, to which we have before alluded, are necessary.

Pessaries, though great evils, are in many cases absolutely necessary; and when all other means have failed in bringing about a cure, recourse must be had to them. They are, however, not suitable in all cases, for they cannot be tolerated when inflammation is present; and until this is removed or mitigated their use is forbidden. Instruments of this kind are of various shapes. Some are introduced into the cavity of the womb, and allowed to remain there. These are called stems, or stem-pessaries. Others, again, are not introduced into the womb, but into the vagina only, and are made to press on the anterior surface of the organ, so as to raise and push the bent part backwards if the case be one of anteflexion. Those for retroflexion are made to press on the posterior surface of the bent organ, so as to raise and

push it forwards. Some of these are entirely introduced into the passage, and are retained there by their shape and the tonicity of the part; others, again, are introduced in part only, and part of them remain projecting outside. The part in the vagina is made to press on the womb in such a manner as to straighten it and maintain it in position, while the part outside is attached to strings, which are tied round the body so as to maintain the instrument in its proper place. When these instruments are worn they should be frequently attended to. Every two or three months, at most, they should be taken out and changed, or re-introduced. Unless this precaution be attended to, serious injuries may result from too long-continued or too great pressure on one part, besides the tendency of foreign bodies, when introduced into any part of the body, to become foul and encrusted with a deposit.

*Membranous Dysmenorrhœa*, or menstruation accompanied by pain and the expulsion of a membrane, is not a very common affection. It is seen occasionally, and is supposed to be due to inflammation of the womb. The menstrual period returns, and is accompanied by a good deal of pain of a bearing-down character, and situated in the region of the womb—that is, in the lower part of the stomach; on the first, second, third, or fourth day a membrane is passed. It is usually



called by women a piece of flesh, and has somewhat of that appearance. It is sometimes a complete sac, a mould of the womb itself. It is three-cornered, flattened, and flocculent on its surface. There is a little hole in every corner. The membrane may be passed, however, in several pieces, at different days of the flow, or even in small shreds. Some authorities assert that inflammation is the cause of this affection; while others doubt the presence of inflammation in some cases, but admit it in others. There is no doubt of the existence of congestion and enlargement of the womb in all cases. The pain comes on several days before the appearance of the flow. It is situated in the pelvis, the abdomen, the groins, and back. It is of a bearing-down character—somewhat like labour pains. There is forcing also in the bowel and the rectum. Strange pains in the abdomen and around the navel are sometimes felt. The pain gradually increases in severity until the membranes are expelled. After this event it abates, and even ceases altogether. The flow is at first in some cases scanty, but it increases until the membrane is passed, and immediately after is often very profuse and clotty. It occasionally lasts a week or ten days. During the intermenstrual interval the patient may be comparatively well. The membrane is expelled, as a rule, with every menstrual flow. Occasionally, however, a period may pass without

a membrane. The disease sometimes appears to get well of itself. The membranes are not passed for months together, and then are passed again with every period. There can be little doubt that some cases which have been described as membranous dysmenorrhœa were cases of abortion. It is, indeed, difficult to distinguish early abortion from membranous sacs of dysmenorrhœa. It occurs at any age between fifteen and forty-five or fifty. It is seen in the married and in the single, in those who have had children and those who have had none. The condition, once it has set in, usually, but not always, entails sterility. There are some cases recorded where women who suffered from this disease became pregnant, and had happy confinements. At the same time this is rare. The continuance of the disease leads to general suffering. The whole body sympathises with the womb, every organ in the body becomes disturbed and fails in the discharge of its functions, nervous symptoms set in, and may end in confirmed hysteria.

Membranous dysmenorrhœa is a most intractable disease. It is very difficult of cure, and when a cure has been effected it has been after long and patient treatment. Rest, physical and functional, is of the greatest importance.

The attack itself is to be treated by anodynes.



Medicines which relieve pain, as opium, morphia, chloral, &c., are administered; during the interval an effort should be made to improve the general state, and to remove the local affection. The bowels have a great tendency to become obstinately constipated. It is with difficulty they can be regulated. The stomach is almost invariably disturbed—often there is vomiting, and the tongue is foul. Brisk purgatives are the best means of relieving the two conditions: Epsom salts, Carlsbad salts, Friedrichshall water, &c., together with attention to diet.

Tonics are often called for to improve the condition of the stomach and blood; bitters, as quinine, bark, and mineral acids.

*Ovarian Dysmenorrhœa.*—This is due to inflammation and other disease of the ovary. It is not uncommon. It may exist without any trouble in the womb, but it is frequently associated with uterine disease. What relation exists between the condition of the uterus and of the ovary, when they are present together, is uncertain. The pain comes on between the periods, sometimes several days before the appearance of the menstrual flow. When the flow appears, the pain, in some cases, disappears, while in others it lasts while the discharge is on. The pain is situated above the groin, and extends up the side and to the back. It is usually on the

left side, rarely on the right. The pain is occasionally severe, and there is also great tenderness of the skin over that region, so that the patient cannot bear the slightest touch, not even the bed-clothes. Women sometimes imagine that a tumour forms at the seat of pain, for they observe that the part is occasionally swollen. This swelling can in many cases be easily recognised. It is worse when the pain is severest; that is, before and about the menstrual epochs. It is not due to a tumour, but to distension of the intestine with gas—to flatulence. It disappears and reappears again at the next flow. When the bowels are confined, the pain at stool is intense, sometimes so severe that the person faints. This pain is in the left side. There is often intense pain in the back and down the thigh on the affected side. It is aggravated by walking, driving, or riding, so that the patient in many cases is quite unable to take exercise, except that of the gentlest kind, as in a bath chair. It is very frequently accompanied by nervous symptoms. Vomiting is very common; hysteria by no means unusual. At first the nervous attacks appear only during or about the menstrual epoch, when the pain becomes aggravated, but after a time more or less prolonged they come on at any time. Any effort, mental or physical fatigue, or slight emotion, will in many advanced cases of the affection bring on a fit



of hysteria. Exposure to cold during menstruation, and a rheumatic tendency, are said to give rise to it. A more frequent cause is pregnancy and labour. The treatment of such cases is attended with the greatest difficulty and anxiety. The general treatment is of the utmost importance, with a view to guard against the worst and most trying part of the affection, the nervous attacks. Women who are the subjects of this disease are generally weakly and delicate, and no treatment can succeed which does not improve the general health. Warm clothing is necessary. Flannel should be worn next the skin—vest and drawers. The diet should be good, simple, nourishing. Fresh meat and milk should be insisted upon; stimulants entirely interdicted. Exercise in the open air is absolutely necessary, in order to keep up the general health. When a patient is able to walk, it is better for her to do so than go in a bath chair or a carriage; but in cases where walking is impossible, she should be taken out every day in a bath chair. Riding and driving cause jolting, and this gives rise to aggravation of the pain and of the diseased condition. Warm hip-baths are useful. They should be taken once or twice a week. Blisters to the painful part relieve the pain. They should be frequently repeated, and healed as quickly as possible. Other counter-irritants, as croton oil liniment and iodine, are used in some

cases. Anodyne applications, such as belladonna plaster, chloroform liniment, &c., are frequently useful for the relief of the sufferings. Internally, tonics—bark, quinine, iodide of potassium and bromide of potassium, steel—acids, &c., are used. The bowels should never be allowed to become constipated, they should be regulated by saline or mineral aperients, for the certain consequence of constipation is great aggravation of the suffering.



## CHAPTER V.

## THE WHITES—OFFENSIVE DISCHARGES—HOW TO USE INJECTIONS.

IN health the only discharge which takes place from the generative passages is the monthly discharge of blood, called the menses. Many women have a whitish discharge for a few hours before the appearance of the flow and immediately after its cessation, but this must be regarded as part of the menses; while any discharge occurring at any other period is undoubtedly the product of disease either general or local. Discharges are of very frequent occurrence. Indeed, few women pass through life without at one time or another suffering more or less from discharges. They have received the name of "whites." They are, however, of very different characters, have different properties, and originate from different sources.

Slight causes suffice in many cases to give rise to a discharge, as a chill, exposure to a draught of air, or change in the constitution of the atmosphere. The great majority of the diseases which affect the sexual system give rise to a discharge; and such discharge may be poured out by the vagina, by the womb itself, or by parts situated in the pelvis outside the womb.

A pale white discharge is occasionally seen in young girls who are not regular, or in whom the menstrual discharge has not appeared at all. In these cases it returns monthly, at the times in fact when the menstrual flux should appear. It is in fact a sort of substitute for menstruation, a sort of "vicarious menstruation." In some cases the discharge is free and abundant, and consists of whitish or yellowish mucus; it lasts for two, three, or four days, then ceases, to return again at the end of the monthly interval.

Disorders or irregularities of the menstrual function, painful performance of it, increase in the amount of the flow, are frequently associated with a yellow discharge, which flows continually or at intervals.

Constitutional states may be the cause of whites. In scrofulous persons the mucous membranes have a tendency to become soft and somewhat swollen. The surface of the membrane not unfrequently becomes a little uneven—granular. This is very often seen in the mucous membrane covering the eye-ball. In such persons leucorrhœa is a by no means uncommon affection. It is also seen in the gouty, the rheumatic, and the consumptive. These forms of the disease are of a very obstinate and rebellious character. Inflammation of the genital passages, or any portion of them, is a not uncommon cause of this affection. In this manner



inflammation of the vagina or of the womb may be the disease which must be cured in order to remove the accompanying discharge.

It is a matter of some importance to make out the exact source of the discharge, whether it comes from the vagina, from the neck of the womb, or from the body of the womb. It may have its source in any one of the situations named, or in all of them; the treatment of course will vary in some very important particulars, according to the part of the canal diseased; the treatment applicable to vaginal leucorrhœa is not applicable to that of the uterine cavity, and *vice versâ*.

Debility, anæmia, or deficiency and poverty of blood, is a very frequent cause of whites. In this condition of the blood the whole body is affected. The blood being the source of the nutriment carried to the tissues, its constitution necessarily has a direct relation to the constitution of the tissues; and when the blood is deficient and the blood corpuscles few in number, the tissues will be insufficiently nourished, and in a state of relaxation. There is a tendency in these conditions to an excessive secretion from many of the glands of the body. The skin is frequently moist from the excessive action of the sweat glands. The mucous membranes are liable to pour out fluxes, and the genital canal pours out white discharge.

Disorders of the stomach and bowels are sometimes

accompanied by leucorrhœal discharge. Indigestion, constipation, diarrhœa, or excessive distension of the abdomen give rise to it without there being present any evident disease of the uterus.

In many cases it arises from want of cleanliness, and improvement in this respect will be immediately followed by a diminution in the quantity of the white discharge. Leucorrhœa, as we stated when treating of pruritus or itching of the vulva, is a frequent cause of that distressing malady. It may also give rise to inflammation of the external organs of generation, of the upper parts of the thighs, of the vagina, and to sterility or barrenness. It may also in some cases be the cause of enlargement of the womb.

*Treatment.*—One of the first things that should be done is to observe the most absolute cleanliness. External washings and ablutions are not sufficient. The vagina or passage should be carefully washed out with warm water once or twice a day. It is convenient to do this while in the morning bath, and while retiring at night. This is a most important part in the treatment of the affection. The further treatment must depend upon the exact nature of the case. Should the source of the leucorrhœa be the vagina, astringent injections will be useful. Should it depend on disease of the uterus, special local as well as general treatment will, in most cases, be required. When it



arises from constitutional states, these should be treated. If there be a rheumatic tendency, warm clothing, efficient action of skin, &c., will be advisable. If gouty, stimulants should be avoided, exercise taken, and saline purgatives occasionally. If the discharge depends on anæmia, the treatment of that affection should be adopted. There are few cases where the object should be simply the suppression of the discharge; indeed, as a general rule, they should endeavour to remove the cause of it rather than simply suppress it.

Some women are rather fond of using injections of cold water and of astringent solutions. The practice in many cases is harmless enough; but every now and then they are used with very disastrous effects, for they set up inflammation in the abdomen around the uterus, cause intense pain, and render the person an invalid for months. Cold water, and astringent solutions of alum, tannin, oak-bark, lead, zinc, &c., should only be used when advised by a doctor, and when there is no congestion or inflammation of the parts. When the latter conditions are present astringents are injurious, and soothing fluids should be used, such as infusion of linseed or starch, or a weak decoction of poppy-heads. When the acute symptoms have been in this manner subdued and the case has become chronic, then the use of astringent injections

is to be recommended. In many cases, however, it is found that the most skilled and varied treatment fails in its purpose of curing the disease and suppressing the discharge.

*Inflammation of the Vagina—Vaginitis.*—Severe inflammation of the vagina is a very painful, though not a very common affection. It arises sometimes from the injuries done to the vagina by the head in its downward passage during labour; from exposure to cold during the menstrual discharge; from injuries inflicted on the coats of the passage by the introduction of foreign bodies or injections, and it also occurs during fever.

The symptoms are generally very severe. There is intense pain or burning in the part; micturition is painful and scalding, it may be difficult or frequent; there is a sense of bearing down and of weight in the pelvis; violent throbbing; profuse discharge of yellowish matter having an offensive odour; the parts around the opening of the passage become red, swollen, the skin over them stretched, and the inner surface of the canal is intensely red, hot, and covered with matter. It is very tender, and not unfrequently slightly ulcerated. The vulva, or external parts, are excoriated.

In this form the disease lasts several days, or even two or three weeks; then the violent and pronounced



symptoms just enumerated gradually decrease in severity, and the disease subsides into the form next to be described—chronic vaginitis. The inflammation occasionally extends into the cervix and body of the uterus, giving rise to a disease we shall describe later on, which is called endometritis, or an inflammation of the lining membrane of the uterus; it may even pass up into the fallopian tubes, and through them as far as to the cavity of the abdomen, thus giving rise to pelvic peritonitis.

*Treatment.*—The patient should rest quietly in bed, and should avoid walking and movement as far as possible. The pain should be relieved by bathing with a decoction of poppy-heads, or hot water; hip-baths of hot water; injections of decoction of poppies, of starch, or of linseed tea, should be frequently made. After the injection, a pessary of opium or morphia should be introduced into the passage—especially if the pain be very severe. The bowels should be kept freely open by saline draughts, and the diet should be low and unstimulating, alcoholic drinks being entirely avoided. Abundance of diluent drinks, as barley water, linseed tea, and lemonade, should be taken, with a view to increase the quantity and dilute the strength of the urine. When the pain, swelling, and extreme redness have disappeared, and the disease has settled down into the chronic form, then

astringent injections are of great use, as solutions of alum, acetate of lead, sulphate of zinc, &c. But these remedies, it must be remembered, should not be used in the first stage of the disease.

*Chronic Inflammation of the Vagina* is a very common affection, induced by very slight causes. It gives rise to a discharge of yellowish or whitish fluid, which is sometimes constant and profuse. This is not noticed, or, if noticed, not treated at first, and after a time it gives rise to discomfort and unpleasant general symptoms—headache, loss of appetite, depression of spirits, indigestion, nausea and sickness, lassitude, inability to walk a moderate distance, a sense of weariness or fatigue, and constipation. Along with the discharge little shreds of membrane are frequently shed, and sometimes even perfect moulds of the passage.

*Treatment.*—The general health must be attended to. Bitters, as bark or quinine, and acids. The bowels should be regulated; change of air is useful, sea-air and sea-bathing. Cold douches or cold baths; good and generous diet. The local treatment consists in the use of injections of warm water for cleanliness, and of acetate of lead, sulphate of zinc, tannin, alum, or some other astringent solution for constricting the vessels of the part, and to give them tone. Though the disease is frequently obstinate and



rebellious, yet by perseverance, and by improving the general state of the health, a cure may generally be effected. The method of using injections will be given later on.

*Other Kinds of Discharge.*—Children occasionally suffer from a white or yellow discharge from the generative passages. It is of great importance to attend to this, for it gives rise to irritation, and the child may scratch or rub the parts for relief, and in consequence possibly acquire bad habits. It is seen in scrofulous, weakly children. Thread-worms occasionally give rise to it, and to intolerable itching of the part. It occurs also in acute fevers, as small-pox, scarlet-fever, &c.

The first step in the treatment is cleanliness. The parts should be carefully washed with warm water two or three times a day. Having done this, they should be bathed with a little lukewarm Goulard water, and a strip of lint wet with the lotion should be placed between the parts. The child should be kept at rest. But this is not enough, the cause of the discharge should be removed. If the child is scrofulous or weakly, she should have cod-liver oil, steel wine, fresh air, and good food. A search should be made for thread-worms in the motions, and if there be any present, injections into the bowel of salt-and-water, or of lime water, should be administered two or three

times a week until none can be any longer found. At the same time steel wine, or some other preparation of iron, should be given.

When this form of leucorrhœa occurs in the course of an acute fever, the treatment of it should be deferred until the child is convalescent, when the means which have already been indicated should be had recourse to.

Besides discharges of mucus or of matter, a watery discharge occasionally flows from the vagina. This is profuse and abundant in some cases of pregnancy, and probably has its origin in the fluid surrounding the embryo. It passes out of the womb by oozing through, or by ruptures of the membranes enclosing the child. It occurs usually in advanced pregnancy, and may come away in gushes for a short time, or may flow more or less profusely for a considerable interval of time. It does not necessitate miscarriage or interruption of pregnancy, but should pains like those of labour supervene, miscarriage or abortion will probably follow.

Again, in certain forms of abnormal pregnancy a considerable amount of watery discharge from the vagina is seen, such as those cases of false conception called hydatid, vesicular, or grape mole.

In certain diseases of the uterus such discharges are very abundant, as in cauliflower excrescence or



epithelial cancer of the neck of the uterus. In such cases it is almost a clear watery fluid, or it may be slightly brownish. The amount discharged in this disease is sometimes very great.

Such discharges are also associated with cancer of the body of the womb, with polypus, and with fibroid tumours.

Occasionally an ovarian cyst discharges its contents into the womb or the vagina, and a profuse watery discharge follows.

After labour such discharges are also seen, and are due to imperfect involution, or to disease of the lining membrane of the uterus.

The bladder may open into the vagina by an artificial opening, and the urine escape involuntarily by the vagina.

*Offensive Discharges.* — The discharge from the vagina may have an offensive odour. In some cases it is exceedingly offensive—so much so that the patient is a burden to herself. There are several conditions which give rise to this peculiar condition. It has been thought that such discharges are met with in cancer only, but such is not the case. It is true that the discharge which flows from a cancerous ulcer and from cancerous growths of the uterus and vagina have frequently a very unpleasant odour, but cancer of these parts may exist not only without offensive

discharge, but for a long time without any discharge at all.

The discharges caused by the presence of a polypus, however, may become offensive ; indeed, any discharge from the vagina, whatever may be its cause, may become offensive if it be retained in the passages for any time. Such retention may be due to a small external opening, to constriction of the uterine canal by flexion or by fibroid tumours. Sometimes it will happen that the discharge is offensive without any discoverable cause.

Offensive discharges occur also during pregnancy, or after confinement. The embryo may die, and be retained in the womb in part or wholly for a considerable time, and may give rise to abundant discharge having an offensive smell. Or a miscarriage or abortion may have taken place, and a portion of the membranes and after-birth be retained, which, by undergoing decomposition, give rise to similar discharges. A portion of the after-birth may be retained after labour at full time, and cause similar symptoms.

These discharges give rise to much discomfort, sometimes on account of their quantity, sometimes from their offensive odour, sometimes from their irritating properties.

The quantity varies much. It may be so slight



that a woman is scarcely conscious of its presence, and it may be so profuse that she has to employ two or three dozen napkins a day. When she stands up, after having occupied the recumbent posture for some time, it may flow in a stream from her.

The unpleasant odour of some discharges we have already spoken of.

The irritating properties of other discharges is occasionally very great. There is constant itching of the external parts, they may become inflamed, excoriated with small ulcers upon them. The skin around, and even the upper parts of the thighs, may be affected in this manner.

Besides the treatment of the conditions which give rise to these discharges (which has already been given) there are one or two observations which should be made here which will greatly conduce to the comfort of the sufferer, and in many cases hasten recovery. Absolute cleanliness is most important. Frequent ablutions with warm water. Injections into the vagina of the same fluid two or three times a day; when the discharge is offensive, a little Condy's fluid or a little carbolic acid (a drachm to a pint) may be added to remove the smell. In this way will not only the evil effects of the discharge be, to a great extent, prevented, but the offensive odour will also be more or less completely removed. As soon as the discharge is

secreted it is washed away, and has no time to become offensive by being retained within the passage.

*Mode of using Injections.*—A proper instrument should be used for injecting fluid into the vagina. Glass syringes of various sizes are sold for this purpose, but they are quite useless and worse, for they are dangerous. It has happened that a glass instrument has broken in the passage while being used. The proper instrument is an india-rubber "tube and ball." It should have a long gum elastic tube, with the openings in its sides for introduction into the vagina. The vaginal tube should have no opening at its point or end. A good syringe is that which is called Higginson's syringe. The patient should lie on her back with a vessel conveniently placed, so as to receive the injection as it returns from the passage. A nurse should administer the injection. If water be employed for cleanliness or other purpose, two or three pints should be used. It should be injected slowly, and no force employed.



## CHAPTER VI.

## SUBSTANCES EXPELLED FROM THE WOMB—MOLES, &amp;c.

SOLID masses are not unfrequently passed by the vagina. They are of various kinds, and to be able to recognise their nature one must be acquainted with the anatomy of the uterus and vagina, and of the human embryo. Frequently the aid of a microscope is necessary to distinguish their nature.

By far the most common substance thus passed is coagulated blood. This is often described as a "piece of flesh," "membranes," "like pieces of liver," &c. Clots of blood may be passed in the form of recent or of old coagula. In the former case they are generally of a dark or brown colour like liver, softish and easily broken down; in the latter, they may be pale, fleshy-looking, decolourised, and of firm consistency. Recent clots may be of any shape, usually having somewhat the shape of that part of the vagina in which they have been lodged. Old clots are generally formed in the cavity of the womb, and have a pear-shape—the shape the womb assumes as it becomes distended. Substances of this kind may be expelled by married or single women, mothers or virgins.

*Moles.*—These are the products of conception, and are of two kinds—the “fleshy” and the “hydatid,” “vesicular,” or “grape” mole.

The fleshy mole, as its name implies, appears like a fleshy mass, in which masses of coagulated blood are found. It is due to effusion of blood into the membranes of the embryo at an early period. Abortion does not take place, but the mass remains in the uterus, and remains in a more or less vital connection with it. It may be retained for several months, and then be expelled. The nature of the mass is known by the presence in it of traces of the membranes of the embryo.

The grape mole consists of a mass of small sacs about the size of small grapes, joined as it were like beads on a string. It is the product of conception, but the embryo dies at an early age, and the membranes develop into grape-like bodies. The woman usually believes herself pregnant, though she may think that all is not right. The abdomen grows very rapidly, much more rapidly than in healthy pregnancy. At the third month the abdomen may be as large as at the sixth month of pregnancy. There is a profuse discharge of watery fluid, often stained with blood; occasional bleeding; sometimes some of the small bladders are passed, and then the nature of the affection is clear. There is often bearing down, and



pains like labour pains. At last the womb acts and expels its contents. The size of the mole varies. It may be only the size of an egg, but it may attain an enormous size.

When the condition is made out, the uterus should be excited to expel its contents.

Portions of the after-birth may be retained after labour, become organised, and firmly attached to the womb, and ultimately be expelled. It may be regarded as a kind of mole or polypus. When expelled, its nature can be distinguished by the microscope, which would reveal the structure peculiar to the after-birth.

Membranes are sometimes passed from the vagina. These may be casts of the womb, as in membranous dysmenorrhœa, or they may be casts of the vagina itself. The latter are less frequently seen than the former. They are known by their shape, size, and structure. The former, when perfect, have a triangular, flattened shape, a shaggy surface, and with a hole at each corner; the latter have the shape of a flattened tube, have an opening at each end, the surface is shreddy, and marked with irregular elevated lines or ridges, characteristic of the vagina. The appearances presented under the microscope are distinctive. Of course, both these may be and are most frequently expelled in pieces, and not as perfect

casts of the organs of which they are the mucous lining.

The treatment of the conditions which give rise to expulsion of membranous casts of the womb has been given under membranous dysmenorrhœa.

The cause of the shedding of casts of the vagina is as a rule the use of irritating injections, and when the employment of these is given up the trouble usually ceases.



## CHAPTER VII.

PAIN IN THE EXTERNAL PARTS—INFLAMMATION AND ABSCESS—  
TUMOURS—BLEEDING FROM EXTERNAL PARTS—ITCHING AND  
IRRITATION OF—PAIN IN THE BACK, ABDOMEN, AND GROIN.

*The Significance of Pain.*—Pain in any part of the body is evidence of disease. It is presumptive evidence of disease of the part or organ in which the pain is felt; but careful inquiry often shows that though the pain is evidence of disease, it is often of disease of a distant organ; neuralgia of the brow is often due to disorder of the stomach, and pain in the ear to a diseased tooth. So the pains which owe their existence to disease of the generative organs may not be seated in the pelvis alone, but also in the thighs, the sides, back, &c. We have already discussed the pains which are so commonly suffered by women during the menstrual flow, and we shall make little or no reference to them in this chapter. Pain, however, is sometimes the only evidence of the presence of uterine disorder, and it is well to have some idea of the various pains which are called forth by diseases of the organs of generation.

*Pain in the External Parts—in the Vulva.*—The external parts possess a very high degree of sensi-

bility. The membranes covering them—both the skin and the mucous membrane—are abundantly supplied with nerves, and these nerves are in great part nerves of sensation—capable of transmitting sensations of pleasure and pain. They are, moreover, supplied with an immense quantity of blood. In certain states especially they become turgid and full. This is due to distension of the blood-vessels in their substance. These blood-vessels consist not only of the ordinary arteries, veins, and capillaries found in other parts, but also of great networks of veins, technically called plexuses. These veins are of considerable size, and join with one another on all sides, so that the tissue of these parts has in reality a structure which could be compared in some respects to that of a sponge. It possesses in fact a network of canals freely communicating with one another similar to that found in the sponge, by the filling of which with water the sponge becomes enlarged and swollen. It is not to be wondered at then that these parts should be subject to diseases of a very painful character. These diseases, or some of them, can be excited, or called to existence, by very slight causes. Very trifling irritation, an acrid discharge, or even any discharge from the passages, may call forth a painful inflammation or an intolerable and persistent irritation. Causes of so slight a character that they could not set up any



disturbance or discomfort in many other parts of the body, when applied to these parts make themselves immediately known on account of the peculiar anatomical structure of the parts—their great vascular and nervous supply. These parts may be affected with any of the following diseases.

*Inflammation.*—Inflammation is a disease accompanied as a rule by considerable pain. This is especially the case when it attacks certain parts. Inflammation of the eye is accompanied by very severe pain, so is inflammation of the joints. The inflammation which accompanies gout, or which arises from an attack of gout, causes the most exquisite and severe agony. On the other hand, inflammation of the lungs is not very painful—though it is accompanied by great depression. Inflammation of the part now under discussion—the vulva—is a very painful disease. There are several kinds of this affection, as there are several kinds of inflammation affecting other parts. When inflammation affects the surface of a part and structures beneath (for it rarely affects the superficial textures alone), and causes matter to be formed abundantly on the affected surface, it is called purulent. The term is taken from the word pus, the technical name applied to the discharge called matter—such as that which is discharged when an abscess is opened.

In many situations in the body, again, there are

small glands in the shape of little vesicles or bladders buried in the tissue, but causing as a rule a slight projection on the surface. These are called follicles. They are found in many places, especially on mucous surfaces. They may be easily seen on the inside of the lips or cheeks, in the throat, on the tonsils, and they are found also on the mucous surface of the vulva.

In certain cases these parts become inflamed, and this form is called follicular inflammation.

There is another form of inflammation not so frequently met with in these parts as the purulent and follicular, which is called the gangrenous. It is seen attacking the face of children occasionally, and is then called *cancrum oris*, or *noma*.

Inflammation of the vulva is technically called *vulvitis*. The parts become red and painful. At the same time they begin to swell. Heat or a sensation of burning is felt in the part, and they are hot to the hand. They soon become covered with purulent matter, but at first when the disease sets in they are dry. The pain is severe; in some cases there is intense itching of the part, and it is difficult for the patient to restrain herself from rubbing or scratching them; but when this has been done it brings no relief, and, moreover, it increases the irritation. The matter discharged has usually, if not always, an offensive



smell. It is of an acrid and irritating character, causing inflammation of the parts it comes in contact with. The greatest care should be taken that none of it be brought in contact with the eye, whether it be by means of the hands or towels used, because it would inevitably give rise to a form of ophthalmia of a most destructive character.

The vulvitis frequently extends to the neighbouring parts. It may extend up into the urethra, the passage leading from the bladder, along which the urine is passed. When this happens, micturition becomes painful. It is accompanied by heat and scalding. It becomes frequent, and often there is much straining. When it extends beyond the urethra into the bladder these symptoms become more severe. There is constant desire to urinate. The act is exceedingly painful. The urine is thick, and contains masses of a jelly-like character — the mucus of the bladder containing a deposit of urinary salts. The inflammation may also extend up into the vagina, and then we get vaginitis and its symptoms. These we have already described. The fever accompanying these affections varies according to the extent of surface involved and the acuteness of the attack. If the attack is slight, and affects a small portion of the vulva only, there may be little or no fever. Should the whole of the vulva, however, be affected, and the

inflammation extend into the urethra, bladder, and vagina, there is great heat of skin, thirst, and general fever.

This affection should be treated actively from the first. It is of the utmost importance that the diet should be regulated, and that all the functions of the body be carefully supervised. The patient should rest entirely in bed. Walking or moving about irritates the parts and aggravates the inflammation. It causes the matterly discharge to come in contact with the thighs, and excites inflammation in those parts. The bowels should be acted upon freely by saline purgatives. Epsom salts is one of the best. The urine should be rendered as dilute and little irritating as possible by the administration of alkaline drinks and barley water. It is of great moment to render and keep it neutral in reaction. The diet should consist of slops. No spirits, or wine, or malt liquors should be taken. The inflamed parts should be frequently bathed with warm water, or a decoction of poppy-heads. This should be done every four or six hours, and during the intervals poultices of linseed-meal or hot fomentations should be applied. When the violence of the inflammation has passed away, the diet may be improved, purgation is no longer necessary, and the frequent bathing and poulticing should be given up. Then cleanliness, bathing the



parts with warm water, or Goulard water, two or three times a day, and an application of lint wet with a lotion of acetate of lead, will as a rule effect a cure. Should this fail, more astringent applications may become necessary. In obstinate cases many remedies will have to be tried, probably, before the one suitable to the case is discovered.

Gangrenous inflammation is fortunately not of frequent occurrence. It is a terrible disease. It frequently ends in death. It is seen in children, and is due in the larger number of cases to blood-poisoning in some form or other, as fevers of all kinds.

The parts become swollen, purple, dark, and black. Mortification soon sets in, and the parts become extremely offensive. The disease extends, and the patient often succumbs.

The treatment should be active, in order to support the patient. The most nourishing food in the most digestible form—wine, brandy, ammonia, bark, and other stimulants should be freely given. The putrefying part should be absolutely destroyed by means of a caustic. It should be entirely destroyed, and in order to ensure the destruction of the whole of it a portion of healthy tissue should be included. The means generally used for this purpose are the actual cautery or the strong, fuming nitric acid—the aqua fortis. Warm poultices of linseed-meal, or

poultices sprinkled over with charcoal, to destroy the smell, should be constantly applied.

*Partial Inflammation and Abscess of the Vulva.*—Inflammatory action having begun in the external parts may become general, as above described, or may be limited to a greater or less portion of those parts. It affects not the surface only, but the deeper structures. The deeper parts may alone or chiefly be involved, the surface becoming red only in consequence of the mischief in the deeper structures. In this case the inflammation is said to be circumscribed. The first notice of anything wrong is given by a pain and a pricking sensation in the part, then swelling takes place, which soon becomes hard and very tender. The swelling is limited to one side, and is large enough to almost close the opening. There may be difficulty in micturition, arising from the same cause. After a time the hardness disappears, and the tumour becomes softer and softer. The hard substance has now become a fluid mass—matter is formed. As soon as matter is formed it should be allowed to run out from the body, and in all cases, when possible, a way should be made for it if necessary. People have usually a great horror of the lancet, not only on account of the exquisite pain which it causes, but also from a prejudice that it is a practice fraught with evil, and that it is better for the matter to find its own way



to the surface, or be drawn there by poultices. It is true that the pain arising from the use of the lancet—on account of the inflamed and sensitive condition of the part to be divided—is exquisite; but it must also be remembered that it is momentary only. The operation, if it deserves the name, takes but an instant, and the relief which follows is not only instantaneous but permanent. The moment that the distended sac which is filled with matter is opened the pain ceases, and the patient is in comparative comfort. The prejudice in favour of poultices, and the belief in their power of drawing matter to the surface, is without foundation. There is no basis for it, general as it appears to be. Poultices are useful in a very great number of cases where there is local pain, on account of their power of relieving pain. The warmth and moisture which they contain favours the circulation in the part, and this alone is their action, and it depends on their power of retaining for a long period moisture and heat. The best poultice is that which remains hot for the longest period without becoming dry. Poultices then, or any other external applications, have no power to attract matter to the surface. This can only take place naturally, by the formation of more matter and the destruction of more tissue. This is always accompanied by a good deal of pain. It is also usually a very slow

process. Moreover, when the matter has thus reached the surface, and the skin has given way and the abscess is discharged, the work of recovery is greater, slower, and more prolonged than if the abscess had been opened at an early period, as soon as matter was formed, and when it was small in quantity. Besides, recovery is not only more tedious after the natural discharge of abscesses, but it is also, as a rule, less perfect. The cavity of the abscess is liable not to close entirely, and a canal, or sinus, or fistula remains, which continues to discharge a thin, often irritating, unhealthy kind of matter. The difficulty of curing such a canal is often very great. Its walls are thick, hard, and grisly; they pour out an unhealthy discharge. It is difficult to get them together and to make them unite. Their vitality is low, and the difficulty often is to alter their character and bring about a cure. Such are not unfrequently the results of allowing an abscess to open naturally, which, had it been opened by the knife or the lancet as soon as matter had been formed, would have probably been well before the natural opening had been effected.

*Tumours of the Vulva.*—Cysts are not unfrequently met with in this situation. They vary in size considerably. They frequently cause no inconvenience, and remain unobserved. This, however, occurs when they are small only, for when they attain any size



they form a swelling which draws the attention, for they partially occlude the orifice of the passage. These cysts are not usually painful. They may, however, become inflamed, then the pain of them is severe, and abscess may form. When, however, inflammation is not present, they give rise to nothing but inconvenience on account of their size. They should be carefully distinguished from abscess, for the same method of treatment cannot be adopted in the two cases. The distinction is easy. The history is sufficient. The pain, heat, tenderness, and redness of the early stages of abscess are not met with at any time in the history of cysts; and, as a rule, cysts are discovered accidentally, whereas abscess commands the attention from the first.

The treatment of cysts must be operative. They may be dissected out, or opened. When opened, the substance in them is sometimes a thick, viscid, pale, transparent jelly; at other times, a substance of a similar consistence, stained with blood, or it may be a thin sanguineous fluid only.

Enlargement or hypertrophy of the parts themselves. Any one part of the external organs of generation may be the subject of enlargement. The part then looks as if it were swollen, but is not red nor tender, and it is free from pain. It may have its natural consistence, or it may be harder than

usual. They may be seen in children—that is, children are born occasionally with such an affection. The treatment when necessary is operative. There are no other means which can be effective.

Warts are also sometimes seen on these parts. They cause a good deal of irritation and trouble. A discharge of a watery character flows from them, and they often bleed.

*Treatment.*—Removal by operation.

*Tumour of the Orifice or Meatus of the Urethra.*—The orifice of the urinary passage is not uncommonly the seat of a growth which causes the patient the most refined torture. This tumour or growth is a red vascular swelling on the mucous membrane of the opening of the urethra. It is usually small—it may be as small as a hemp-seed, or as large as a cherry. It is usually attached closely to the tissues beneath, but occasionally it has a longish stalk, half an inch or more in length. It is of a dark red appearance, is rough or uneven on the surface, lobulated. It is soft to the touch, and very tender; it bleeds easily, and breaks down with great readiness.

The patient complains of the severest pain in passing urine. They describe this pain in the strongest language, and postpone the act until compelled to it by dire necessity. It is easily recognised when looked for. Touch alone will give rise to a strong suspicion



of its presence, on account of the excessive and unnatural tenderness in the situation of the urethral opening, but ocular examination puts the diagnosis beyond doubt. The tumour is seen, and its character recognised.

*Treatment.*—It is often troublesome to cure. The symptoms can be often greatly relieved by medicine. The pain can be relieved, and micturition rendered tolerable; but the worst troubles soon return again. The application of anodynes, as opium, aconite, hydrocyanic acid, chloroform, can only be palliative in their effects. For a cure to be effected, extirpation of the growth is necessary. This may be done by direct removal or by caustics. It depends a good deal on the form and position of the tumour which of those means is most suitable to the case. Even when apparently completely removed, the growth occasionally returns again. In such a case the operation for removal should be repeated.

*Bleeding into or from the Vulva—Pudendal Hæmorrhage.*—This is by no means a common affection. The blood may flow into the tissues of the vulva, and there form a soft swelling—a sanguineous tumour; or it may flow till the surface of the skin be lacerated. It is more common in the married than in the single. The veins during pregnancy often become enlarged, hard, and swollen both in the lower

limbs and in the private parts, from the pressure upon them preventing the easy and rapid flow of blood. In consequence of this, the veins give way, and hæmorrhage follows. Muscular efforts, by causing a great strain upon some of the veins, produce a similar result. Blows on the part, produced by falling, riding, &c., may cause such laceration and bruising of all the tissues as to give rise to profuse bleeding. Wounds of the part, produced accidentally or otherwise, are another cause.

When the blood is poured into the tissues, and does not appear externally, and when it is produced by no external injury to the parts, there is pain, pricking, and perhaps throbbing, in the part, and a swelling forms usually very rapidly. The swelling sometimes becomes very large in a very short time, and may prevent micturition.

The *treatment* consists in the application of cold and pressure. Cold should be applied by means of evaporating lotions or a bladder of ice, pressure by means of a T bandage and a pad. A T bandage consists of a belt surrounding the abdomen just above the hips. It should be applied moderately tightly, so that it cannot when pulled slip over the projecting wings of the pelvic bones. When this is applied, another bandage is passed between the legs, and fastened posteriorly to the abdominal belt; then it



should be fastened to the abdominal belt in front when drawn so as to produce the pressure required on the vulva. By such means most superficial bleedings from these parts can be effectually checked. When the tumour formed by the blood is small, rest and time will generally suffice for the cure. When bleeding has stopped, absorption will set in, and rapidly carry away the extravasated blood. Should the sanguineous tumour be large, however, operative measures would be required for the removal of a clot of blood that could not be carried away by the absorption process, and the greatest care would then be requisite in the after treatment.

Other tumours of the vulva are occasionally met with, but they are of such rarity as not to require description or enumeration in a work of this kind.

*Itching and Irritation of the Vulva—Pruritus.*—Itching of the vulva is a most distressing and intolerable affection; and it deserves this special character because to all appearance the patient enjoys perfect health, and yet at the same time she suffers from an itching so intense, an irritation so acute, that she is debarred from society by the ever-present desire of scratching the part to relieve her trouble; loses her sleep from the same cause; is constantly troubled night and day, until at last her general health suffers. The itching is only a symptom of



some deeper affection, and in order to effect a cure the cause must be discovered. The causes of this symptom are various. Not unfrequently it is the result of a disease of the skin covering the part. The cutaneous surface may have scattered over it small pimples having a red top. These may be the original cause of the irritation, but they may also be the result of the itching, and the scratching and rubbing exercised to relieve it. Eczema is another affection of these parts, and not a very uncommon one, which excites intense itching. It begins as little bladders, with a red border or base. These burst, the skin around becomes red, and after a brief time may become a moist weeping surface. The surface has now a red, shining appearance, and is intensely irritable, and sometimes very painful. It is occasionally hot and burning. This acute state may soon pass off, and a chronic stage follows, which often lasts an unlimited time. During the continuance of the chronic condition, successive acute attacks may occur, successive crops of vesicles making their appearance, and running the course already described, leaving the patient generally in a worse condition than before.

It is a very obstinate disease, very rebellious to treatment. The acute, hot, burning condition may be relieved by the application of a mixture of lime water and oil. This should be applied frequently on



strips of lint, and the patient should be kept absolutely at rest. All stimulants should be avoided, and the diet should be moderately low. Great cleanliness should be observed. Ordinary soap should not be used in washing—tar or carbolic soap should be substituted. A regular course of treatment will be necessary to establish health. Treatment must be persevered in for a long time to effect a cure.

But pruritus is more frequently met with without any apparent disease of the skin. It appears that the skin is in these cases the seat of an irritation reflected from other parts. The terminations of nerves are often the seat of the irritations arising in their course. When the skin is to all appearances healthy, we generally find a discharge of some kind, often of an irritating character, from the vagina.

The whites and all the diseases which give rise to them are a prolific cause of pruritus; indeed, this is of all the most frequent. This disease, though exceedingly common, does not, however, give rise to pruritus but in a few cases. It does so when the discharge possesses a very irritating character. Pregnancy is frequently accompanied by a profuse leucorrhœa, and these cases are more subject to pruritus than those in which leucorrhœa is present in the unimpregnated condition. Pregnancy in itself, however, exercises such peculiar influence on the whole system

—nervous, cutaneous, digestive, and so on—that it is not easy to say how much is due in such cases to the pregnant state, and how much to the whites accompanying it.

In old age pruritus is also met with, arising from whites. The irritation caused by thread-worms in the bowels gives rise to the most intense itching, which cannot be alleviated until the offending organisms be destroyed.

*Treatment.*—Whatever be the cause of the itching and irritation, every effort should be made to relieve this most distressing symptom, and that at once. Relief of this is in the highest degree demanded, because it unfits the patient for all her duties and for all the pleasures of life. At the same time that the most prominent symptom should be treated and alleviated, the cause of the evil should be traced out. Examine carefully for all the conditions which are likely to cause such symptoms. Should there be leucorrhœa, the greatest cleanliness should be observed. Frequent ablutions with tepid water, or water containing a little Goulard water, should be practised. Injecting into the vagina of similar solutions of lead should be practised at the same time. When the parts have been dried by means of a soft towel, the itching parts should be oiled or greased with lard or sweet oil, or powdered with starch and



oxide of zinc. Should disease of the vagina or of the uterus be discovered, it should be treated, and the itching meanwhile relieved by poppy-head fomentations, opium, or the application of a solution of nitrate of silver to the surface.

*Pain in the Back.*—In almost all diseases of the womb this is complained of. It is situated in the lower part of the back, and is at its height during menstruation. It may arise from other causes, as constipation, lumbago, and disease of the spine.

*Pain in the Pelvis and Lower Part of the Abdomen.*—This arises from many causes, as fibroid tumour, cancer, or inflammation of the uterus. It is more or less constant. The pain of cancer is peculiar, it is described as having a darting, burning, lancinating, or gnawing character. Pains which are intermittent, which come and go, and which have more or less the character of labour pains, are caused by retention of the menses, abortion, hæmorrhage around the womb (hæmatocele), polypi, clots, or fibroids in the womb, flexion of the uterus, membranous dysmenorrhœa, neuralgia of the uterus.

*Pain in the Side a little above the Groin.*—This is often due to ovarian irritation or chronic inflammation of the ovary. It is also said to be due to neuralgia of the ovaries. It proceeds to the back and hips, and down the thigh and leg of the affected side. It is

sometimes very severe, and is attended by superficial tenderness. Walking or any movement aggravates it—especially jolting movements. It greatly interferes with walking, and gives rise to great fatigue. Displacements of the uterus, displacement of the ovary, congestion and inflammation of the womb, and disorders of the bladder, are said to give rise to similar pain. The pain is usually situated on the left side, occasionally on the right, and now and then on both. The pains occurring with menstruation have already been described.

*Sometimes a sudden intense pain is felt* in the lower part of the abdomen. It is accompanied by prostration, a feeling of faintness or actual fainting, pallor of the surface, weakness of the pulse, clammy perspiration, sickness, and vomiting. These are symptoms of a severe shock to the system, and are always serious. They should at once be properly attended to. They may be due to rupture of a vessel in the tissues around the womb and hæmorrhage (*see* "Hæmatocele"), or to rupture of the pregnant uterus, to hæmorrhage from an abnormal form of pregnancy called extra uterine (this is extremely rare), to rupture of an ovarian cyst. Rupture of the pregnant uterus is very rare. It may happen without obvious cause.

Rupture of an ovarian cyst happens occasionally.



Sometimes it results in a cure, and sometimes it ends fatally.

The treatment, until advice is obtained, should be absolute rest, and small quantities of stimulants, of which brandy and-water is the best.

## CHAPTER VIII.

## DISORDERS OF MICTURITION.

DISORDERS of micturition frequently accompany uterine and ovarian disease. This has already been observed when enumerating the various symptoms which accompany diseases of the organs of generation. In this chapter it will be necessary to do little more than to enumerate the causes of urinary troubles, so that the reader may be able to refer to those causes in other parts of the work.

Micturition may be frequent, but accomplished without pain or difficulty. These cases are very common. They are due to displacements of the uterus, tumours in the pelvis pressing or irritating the bladder; inflammation of the uterus or of any of the parts in the pelvis, as pelvic cellulitis; hæmatocele; dysmenorrhœa; irritability of the bladder, without any special disease; certain conditions of urine, and some diseases of the kidneys.

On the other hand, micturition may be frequent and painful. This depends upon displacements of the uterus pressing on the bladder and urethra; vascular tumour of the urethra; inflammation of the



vagina and external parts, and of the urethra and bladder; gravel, stone in the bladder; disease of the kidneys; diseases of the bladder; and certain conditions of the urine.

Micturition is sometimes difficult. This may be due to displacements of the uterus; tumours in the pelvis; displacements of the bladder, as in falling of the womb; tumour of the urethra and vulva or external parts pressing on the urinary passage and diminishing its calibre; stricture, or constriction, of the urethra, or urinary passage; and diseases of the bladder, as cancer, polypus, paralysis, &c.

Micturition is impossible in some cases. Rarely no urine is poured into the bladder, and there is no desire to micturate. This is called suppression, and is due to inaction of the kidneys. In the majority of instances, however, the urine is freely secreted, and finds its way into the bladder, and though the patient makes efforts to urinate, she fails: this is called retention. This condition is due in most instances to obstruction to the passage from pressure caused by tumours, or displacement of the womb. It is also seen in some cases of hysteria. In the last-named class of cases a good deal of pain is complained of in the bottom of the stomach, as well as in other parts of the body. The attacks come on frequently, and are due to a nervous condition. The exact nature

of the case can as a rule only be made known by examination.

Micturition is sometimes involuntary. This condition is not very uncommon, and is one of the most distressing affections. It may be present at birth, but this is rare. Young girls frequently are unable to retain their urine during sleep. This condition is generally easily cured by careful watching and by regulating the action of the urinary function. When the girl goes to sleep, she should be made to pass urine. She should again be called up to micturate once or twice, as may be necessary, in the course of the night. The time when the involuntary action takes place should be found out by careful watching, and the calls to urinate should be made just before such times. In this way the habit may be broken, and a better one substituted.

But micturition may be involuntary from defective formation or from disease of the bladder. The most common of these conditions is a fistula, or a communication between the bladder and vagina. In most of such cases, the person has no control whatever over the flow of urine; while in others she has partial control, because while at rest in certain positions the urine is retained for a shorter or longer time, according to the position of the fistula. As a rule, this is the result of severe labours, in which the



partition between the bladder and vagina becomes torn through, or crushed to such a degree as to end in ulceration. The fistula is easily discovered on careful examination. There is but one means of cure—that is, an operation for closing the opening. No other treatment can be effectual. Fistula may also be the result of cancer. For this no operation can avail.

Involuntary flow of the urine may result also from pressure caused by tumours of the ovaries, or of the uterus, or of other parts, when they enter the pelvis.

Displacement of the uterus is also an occasional cause of incontinence, especially during pregnancy.

During the later months of pregnancy and after labour, the urine escapes often in an involuntary manner; after labour the condition passes off, and control over the bladder is regained as health and strength are restored.

When there is involuntary escape of the urine, the greatest care is necessary in keeping the parts clean. It is not possible to keep them dry, owing to the constant dribbling. This gives rise to irritation, redness, pimples, or inflammation of the skin and buttocks. To ward off this, warm bathing of the parts should be had recourse to once or twice a day, and after each bath the skin should be perfectly dried and smeared with lard or zinc ointment. It is hardly necessary to say that the diapers should be frequently changed.

## CHAPTER IX.

## ENLARGEMENT OF THE ABDOMEN--OVARIAN TUMOURS.

THE abdomen may become enlarged from a variety of causes—as pregnancy, dropsy, tumours of the ovary or of the uterus, diseases of the spleen, kidneys, liver, and bowels. Of pregnancy we shall speak at length in another section. Here we shall speak of tumours of the ovary, and refer incidentally only to the others.

*Tumours of the Ovary* may be solid, cystic, or cancerous. The solid tumours are rare, and never endanger life. They do not grow to a large size, and usually cause but little inconvenience.

*Cancer of the Ovary.*—The tumour is situated on the right or left side, between the navel and hip, in the region of the ovary. It is the seat of pain of a lancinating, darting, or burning character. It is tender to the touch, liable to press upon the veins which return the blood from the lower limbs, impede the circulation, and give rise to a puffy swelling of the leg. The patient loses flesh, grows rapidly weaker, becomes irritable, fretful, and depressed in spirits. The tumour usually forms rapidly, and is irregular or



lobulated on the surface, though in some cases it is smooth. In course of time the peculiar aspect of cancer is developed. The abdomen may become immensely distended with fluid—dropsy. This is due to the irritation caused by the cancerous mass. Such great exudation of fluid into the cavity of the belly never occurs in any other disease of the ovary. This is a valuable aid in diagnosis. The treatment depends on the character of each individual case. In one it is advisable to remove the growth by operation, with a view to prolong life, though perhaps not to absolutely cure: in another such an operation is impossible.

*Cystic Tumours of the Ovary, or Ovarian Dropsy.*  
—These are sacs or cysts containing fluid. Sometimes there is but one cyst present, and that a simple one, containing a single cavity only. In other cases, a cyst contains a number of cavities distinct from one another, or several smaller cysts within itself: such a tumour is called a multilocular cyst. In a third class of cases, several cysts grow side by side; they may unite and form a single tumour, or they may remain more or less separate.

The contents of the cysts vary in character. They may consist of a pale, straw-coloured fluid, almost like urine in appearance, or of a thick, viscid, gelatinous substance, which may have a pale, or a brownish, or

even dark colour. In some rare cases, skin, bone, hair, teeth, and fatty matter have been found within ovarian cysts.

We know but little of the origin and causes of these morbid growths. They are rare under twenty, most common between twenty and forty. At the same time they have been seen in youth, and even in childhood, nor is old age exempt from them. Child-bearing is generally believed to prepare the ground for their development; but as the great majority of women are or become mothers at some period of their lives, this belief has little in its favour. Moreover, it is not uncommon to see cysts of the ovary in the unmarried and childless. General weakness, bad nutrition, general pallor, or chlorosis, are said to predispose to the formation of these cysts. In favour of this, it may be said that the majority of the subjects of this form of tumour are out of health. Scrofula again appears to favour their development. Disorders of menstruation frequently accompany and precede the growth of ovarian tumours, and are said to favour their development. In these cases, however, it is more likely that there is something radically wrong with the generative organs, and that the menstrual disorder as well as the ovarian growths are due to the same cause, than that the menstrual disorders bear a casual causal to the ovarian tumours.



*Symptoms at the Beginning of Ovarian Tumours.—*

There are usually few if any symptoms which attract attention. In some cases menstruation is disordered, but this symptom is of so common occurrence where ovarian disease is not present, that it would not lead to the least suspicion of the existence of ovarian dropsy. Again, in other cases where cysts grow in the ovary, menstruation may be performed regularly and normally; and pregnancy may even occur, and run its course to a happy termination. In many cases, however, soon after the commencement of the disease there is a dull pain felt in the region of the affected ovary, a sense of fulness, weight, dragging, and irritation. There may be a slight swelling—smooth, resistant, but not tender—discovered on careful investigation. So long as the tumour remains in the pelvis, it may give rise to very serious troubles by its mechanical effects. It presses on the bladder, giving rise to frequent or difficult micturition, or even renders urination impossible. On the other hand, the pressure exercised by it on the rectum or bowel gives rise to constipation, or alternately diarrhoea and constipation, and bleeding piles. Pressure on the blood-vessels causes swelling of the lower extremities. When the tumour rises from the pelvis into the cavity of the abdomen, its presence is more likely to attract attention. The symptoms above

enumerated are present only when the organs in the pelvis are seriously pressed upon by the tumour. In some cases this does happen, but the tumour readily ascends into the cavity of the abdomen without the occurrence of any such troubles. In that case the growth may attain a considerable size before its existence or the existence of anything wrong is suspected. Its discovery is in some cases accidentally made by the patient or by her doctor. In other cases, there is a consciousness of abdominal enlargement; there is a sense of fulness, and the clothes are felt tighter than they should be. At first, the swelling or tumour is situated on one side. As it grows, however, it extends upwards, and towards the middle line of the body, and ultimately extends across that line, filling both sides. These tumours vary much in size: they may reach up to the breast-bone, filling the whole of the abdominal cavity, driving the intestines upwards and backwards, and encroaching upon the cavity of the chest. On the other hand, they may be so small as not to be discoverable on the most careful investigation made during life. They are at first movable, and may remain so throughout their course; but in most instances they set up inflammation in the cavity of the abdomen, which ultimately renders them fixed.

Occasionally they give rise to incontinence of



urine. The contents of the bladder escape involuntarily. Sometimes they cause complete obstruction of the intestines, either through direct pressure, or through the inflammation set up by them. In this case there is severe pain and vomiting, and unless operative relief is obtained, death is inevitable. When the tumour has attained a large size, the skin of the abdomen presents white lines from the over-stretching, the legs swell, and the veins become enlarged, varicose, and inflamed from the obstruction to the return of the blood to the heart; the liver and midriff are pressed upwards; the cavity of the chest is encroached upon; the bases of the lungs are pressed upon, so that air cannot enter, they become collapsed, and difficulty of breathing and palpitation of the heart ensue.

In this way all the organs in the body become interfered with, their functions become performed imperfectly, nutrition is impaired, sleep is lost, food cannot be taken in sufficient quantity, the patient is unable to lie down, nor can she walk about, she wastes, becomes thinner, hectic fever sets in, and she dies exhausted, or is carried away by some intercurrent disease.

The manner of growth of ovarian cystic tumours is uncertain. In some cases they grow slowly, but still regularly increasing in size; in other cases they grow rapidly, and attain in a brief space of time a large size; while in other cases they remain

stationary for months or even years, and then grow again. Ovarian cysts occasionally undergo spontaneous cure. The fluid contents are absorbed, and the cyst wall shrivels up. This, however, is a very rare termination; and when the disease is permitted to take its own course uninterfered with, serious consequences may follow.

The cyst wall may give way, and the contents be poured into the cavity of the abdomen. In some cases no harm follows from this; while in others, in which the fluid has irritating properties, inflammation is set up, and death is almost inevitable. In those cases where the fluid is innocuous, a cure may be effected, or the opening may be closed, and the cyst may fill again.

The pressure of the cyst on the bladder may cause absorption of the wall of the cyst and the wall of the bladder at the point of contact. In this manner the contents of the cyst are poured into the bladder and evacuated, and recovery take place. The discharge may take place also by the intestine.

Inflammation frequently takes place in the peritoneum around the cysts. In this way it contracts adhesions to the neighbouring parts. But the cyst itself may become the seat of inflammation. This inflammation is of a low kind, and always ends in the formation of matter. In fact, the cyst becomes



a huge abscess. The signs of this condition are pain in the cyst, heat, fever, and shivering. When the temperature runs high, "emaciation is progressive, appetite lost, throat troublesome, sleep disturbed, nausea or vomiting distressing, and the abdomen tender on pressure, with hurried pulse and respiration; it is extremely probable that one or more cysts contain pus; and when these symptoms are present in an extreme degree, or have lasted a considerable time, the pus has become foetid."

When the cyst is freely movable in the abdomen, it may be twisted on its stem or pedicle. The result is a strangulation of the vessels conveying blood into the tumour; the blood cannot return along the veins, they become distended, and ultimately burst, giving rise to bleeding, with perhaps great distension and rupture of the cyst, which may end fatally.

Sometimes the contents escape by the fallopian tube into the womb, and out by the vagina. This is a very favourable termination. The opening may remain permanently patent, and thus allow a drain of fluid, as it is secreted by the contracted sac.

Occasionally death occurs suddenly, without any apparent cause. This happens in cases where the tumour has attained a great size, where the abdomen is immensely distended, the lungs pressed upon, and the action of the heart interfered with.

The breasts sometimes suffer sympathetically in these cases. They become swollen, hard, nodulated, and painful. Sometimes they present characters similar to those seen during pregnancy.

*Treatment.*—Until recently the treatment of these tumours was of a very unsatisfactory character, for medicines have no effect, either in arresting their growth or promoting their absorption.

Operative means alone can effect a cure. There are two operations one of which is usually performed in such cases. One is to tap the cyst, and let out its contents: it is palliative only. Occasionally, however, it effects a cure; but in the great majority of cases the cysts soon fill again.

The other is removal of the cyst. Within recent years this operation has been brought to a great degree of perfection; and though it, like all other operations, is not unattended by danger, yet it gives the only chance of a perfect cure, and the best chance of prolonging life.



## CHAPTER X.

## THE SIGNS OF PREGNANCY.

THERE is no question of greater interest to woman or to the human race than the creation of a new being. This is a process which takes a considerable time to run its course, and the state of the woman in whose body this process of development is going on is called pregnancy. In whatever state or position a woman may be, the signs and symptoms of this condition are such as necessarily to attract her attention. The majority—the very great majority—of women who attain adult life become mothers, and to them the question we are about to discuss is of supreme importance.

It is not very many years since the discovery of pregnancy with absolute certainty has become possible. Before this, another discovery had to be made—that of the stethoscope and auscultation. The discovery of the heart's sounds had again to be made before the stethoscope became applicable to the diagnosis of pregnancy. These were gradual steps, each of which met with much opposition. In the present day, it would not be possible for any one to

mislead neighbours and physicians by simulating pregnancy, for the fraud would be at once detected. Sixty years ago, however, Joanna Southcote declared herself pregnant by the Holy Ghost, obtained a number of followers who believed her, and led medical men to state that she was pregnant, and yet it was found after her death that she had never conceived.

During the early months of pregnancy, however, it is not so easy as it may at first sight appear to decide if pregnancy be present or not. It is the custom of the law to refer a prisoner who declares herself *enceinte* to a jury of matrons, and they have to decide; but their decision can never be of any great value, for it requires the greatest skill to answer the question with certainty, even during the later months of pregnancy, while during the earlier months the best skill can at best attain to probability only, but it is at the same time probability amounting almost to certainty.

The time of life at which pregnancy is possible is a matter of importance to bear in mind. It is the time which extends from puberty to the change of life. This is called the fruitful period of life, or period of sexual activity. As a rule, it is the period during which the monthly courses return regularly—that is, between the fourteenth or fifteenth year and the forty-fifth or fiftieth. There are, however, rare instances of



pregnancy occurring before the fourteenth year. In India, pregnancy occurs sometimes as early as the tenth or even ninth year. A case is known to have occurred in England, in which a young girl gave birth to a full-grown child soon after she had completed her eleventh year. This is the earliest age at which pregnancy has been known to occur in this country.

As to the latest age at which pregnancy may take place, it may be said that, though the menses may have ceased to appear, yet it is possible for conception to take place even afterwards. The menses in some cases disappear for a time, and again return after an interval of a few months or years. The menses may continue to return regularly to a great age. Haller states that he delivered one woman in her sixty-third and another in her seventieth year.

The sex of the child is in some places the first question the midwife has to decide on being called to a patient, and the rules according to which this is to be determined are somewhat amusing. Hippocrates said: "A woman with child, if it be a male, has a good colour; but if it be a female, she has a bad colour." And again, "The male foetus is usually seated in the right, and the female in the left." In one of the oldest works in English on midwifery, it is stated—"But if ye be desirous to know whether the conception be man or woman, then let a drop of

her milke or twaine be milked on a smooth glasse, or a bright knife, other els on the naile of one of her fingers, and if the milk spread abroad upon it by-and-by, then it is a woman child; but if the drop of milke continue to stand still upon that which is milked on, then it is a signe of a man child.

“Then, if it be a male, then shall the woman with child be well-coloured, and light in going, her belly round, bigger towards the right side than the left (for commonly the man childe lyeth in the right side, the woman in the left side), and in the time of her bearing she shall better digest and like her meate.”

Of course the above rules are of no value, because they are not true, as may be proved any day; and it is only the most absurd credulity that ever puts any faith in them. There are, however, some reasons for believing that the ages of the parents exercise some influence on the sex of their offspring, because it appears that when the father is older than the mother more male than female children are born; when younger, more females than males. Attempts have also been recently made to determine the sex of the child by the auscultatory examination of its heart. When the number of the beats of the child's pulse amounts to from 144 to 160 per minute, the child is said to be female; when from 120 to 140, it is said to be male. There is probably some truth in this,



and a fair guess may be made by this method of the sex of the child unborn. But this method is far from certain. Indeed, though in a majority of cases it may even prove correct, it will prove to be false in a large minority. It appears that the frequency of the pulse is more directly related to the size and weight of the child than to the sex, so that a big, strong, heavy child has a slower pulse than a small, weakly, and badly-nourished one. Supposing, however, that the children were healthy in any number of given cases, the male would almost in each case weigh more than the female, so that the weight which favours slow pulse would be in the male sex. Thus it is seen that there is some truth in the observation that sex can be discovered by the pulse.

Some curious cases of pregnancy occur where the condition remains quite unsuspected throughout the whole time, and even for the first hours of labour. The late Dr. Tanner reports the following case:—

“I was sent for on Thursday morning, 17th of April, 1862, at nine o'clock, to see Mrs. G——, forty-two years of age, who had been suffering great pain in the abdomen since eleven o'clock on the preceding night. This lady had previously sought my advice on some half-dozen occasions. She had last consulted me at the beginning of March for an attack of indigestion, on which occasion no mention was made of

any enlargement of the abdomen, nor was there any swelling perceptible through her dress. Her history is that she has been married for rather more than three years (since February, 1859), and that she has never been pregnant. The catamenia were lost on some time in June, 1861, but as they had been very scanty for five or six months before, this circumstance did not particularly attract her attention. In fact, she attributed the sensation to the change of life.

“On my arrival at the patient's house, I found her in bed, complaining of great abdominal pain, which had kept her awake the whole night. Her husband and her mother-in-law were present, as well as a married sister who had borne children. I was told that Mrs. G—— had not been well for a fortnight, her breath having been short on making any exertion, and her legs having become swollen. On Wednesday night, at eleven o'clock, she suddenly began to suffer from pain in the stomach, for the relief of which her friends applied a mustard poultice. At two o'clock a.m., the sufferings were so great that a neighbouring medical man was sent for. This gentleman was unable to attend, but sent his assistant, who was said to have stated that the illness was due to ‘flatulence and inflammation of the bowels.’ He gave a bottle of medicine, the second dose of which, however, caused sickness, and failed to afford any relief.



“On examining the abdomen, I discovered an oval tumour distinctly occupying the right side, and extending from the pelvis to some two inches above the umbilicus. It seemed to be about the size of the adult head; but although the abdominal parietes were thin, the tumour was by no means distinct to the sight, though it was readily made out on palpation. On making a vaginal examination, I found the os uteri dilated to the size of a crown-piece, and the head of a foetus entering the brim of the pelvis with the vertex presenting. The membranes were ruptured; but the patient was not conscious of any discharge of water having taken place, and there was no appearance of moisture on the bed upon which she had been lying all night. On inspecting the breasts, a narrow brown areola was seen; but it certainly did not exceed half an inch in width. When Mrs. G—— was asked if she had felt any movement in her abdomen, she allowed that she had occasionally experienced curious sensations for some weeks past, but these were attributed to flatulence. During the whole period of pregnancy there had been neither sickness nor any feeling of nausea. The moderate increase in size which was perceptible had been attributed to the natural deposition of fat, for all the members of her family are disposed to be stout.

“As the pains were not violent, and the head did

not advance, I left the case at nine o'clock, after explaining its nature; but the explanation was received with incredulity, neither the patient nor her husband having the slightest suspicion that pregnancy existed. The sister, however, took steps for obtaining the loan of baby-linen, &c.

“At half-past one in the afternoon, when I returned, the pains of labour were strong and of frequent occurrence. The head was low down, and the parts fully dilated.

“The child (a female) was born with animation suspended; but by a persevering use of artificial respiration, it was resuscitated at the end of half an hour. Although small, it seemed to be a mature infant. She has since become strong and healthy.”

Dr. Tanner remarks on the above case:—“The history, however, seems to establish the fact that a woman may conceive, may go to the full time of gestation, and may be in labour for ten hours, without having any suspicion that she is pregnant. It ought perhaps to be mentioned, that from all I have seen and heard of Mrs. G——, no doubt whatever is entertained but that her statements may be taken as strictly true. Independently of this circumstance, it so happens that both parents, though they despaired of ever having a child, were both anxious to have one; and the birth of the little girl was therefore



regarded as the happiest event which could befall them.

Other cases have been recorded bearing on the same point, and the fact that pregnancy may occur and its subject be unconscious of it is put beyond dispute.

Cases happen also when women imagine themselves pregnant when they are not. These will be referred to later on.

That women fall into such errors may appear at first sight strange, but a consideration of the signs and symptoms of pregnancy will tend to lessen the wonder that the above statements may have called forth, inasmuch as it will then be seen that there is no sign of pregnancy of which the woman herself can be cognisant which may not be simulated by disease. Though the symptoms which attend, or are associated with, the state under consideration are numerous, they are not all of equal value, and very few of them are absolutely diagnostic of pregnancy; and these few may elude the observation of a skilled physician.

*Suppression of the Menses.*—One of the earliest symptoms of conception having taken place is the suppression of the menses. The menstrual flow does not return at the expected time. This is the general rule, and when a married woman finds that her

courses do not appear at the time they are due, she regards herself as being pregnant; and she is usually right in doing so. The rule is, however, not without exception, and therefore too great reliance should not be placed on the fact of menstrual suppression by itself. The menses are not always stopped when conception has taken place. For several months—three, four, or five—the discharge may return regularly, though the woman is pregnant. Cases have occurred, indeed, in which they have returned every month throughout the whole period of pregnancy. Women who had never menstruated have become pregnant, and during their pregnancy have had a menstrual flow every month. Such cases are rare; but the fact of their occurrence is quite enough to invalidate the symptom under consideration as a sign of pregnancy.

Besides, we have already seen that the menses may be suppressed through many other causes than the occurrence of conception. In newly-married young women, it is not uncommon for two or three periods to be missed without any known cause. The young wife believes herself pregnant, but she soon finds out her error.

*Nausea and Vomiting.*—Another symptom which appears at an early period of pregnancy is sickness. It usually makes its appearance soon after impregnation,



and lasts for two or three, or even six months. It may, indeed, continue throughout the whole term of pregnancy. In others, again, it does not come on until the later months. This vomiting is worse in the early part of the day, and has consequently been called "morning sickness." It is hardly necessary to state that its value as a sign of pregnancy is very slight, as it may not only be altogether absent, but similar vomiting may be due to numerous other causes. The vomiting of pregnancy is not due to indigestion, but to a sympathy with the uterus—an irritation of the stomach arising from the condition of the womb. It is considered when not excessive as a good sign, for it is said that "a sick pregnancy is a safe pregnancy."

Together with vomiting, there is often heartburn, waterbrash, pain in the pit of the stomach, and degraded appetite. The woman loathes her usual food, and longs for indigestible and injurious substances. Sometimes there is great increase in the secretion of saliva. Water runs from the mouth almost in a constant stream. Sometimes there is diarrhoea.

*Changes in the Breasts.*—The breasts are organs which sympathise in a very remarkable manner with the womb. When there is disease or irritation of the latter, the former often become painful and swollen. But this sympathy is more marked during

pregnancy than in any other condition. At an early period after conception the pregnant woman begins to feel peculiar sensations in the breasts—a feeling of discomfort, soreness, and even pain: soon the organs begin to feel tense, and to throb. About the end of the second month they usually become hard, uneven, and knotty; the blue veins which run under the cutaneous covering become larger and more marked; the dark area around the nipple (the areola) becomes deeper coloured, and large, moist, and uneven on the surface. White lines soon make their appearance on the mammary surface, radiating from the nipples as a centre. Milk or a milky fluid may be made to exude from the nipple on pressure; but this, though popularly regarded as a sure sign of pregnancy, is by no means such. Indeed, no sign can be of much less value when taken, not in conjunction with others, but alone, for milk has been seen in the male breasts, and even in those of new-born babes.

The secretion of milk may also be kept up for years in the breasts of those who have once been pregnant, or it can be excited after even years of suspension. Dr. Livingstone, in his "Missionary Travels and Researches in South Africa," relates the following curious examples:—

"Masina of Kuruwan had no children after the birth of her daughter Sina, and had no milk after



Sina was weaned, an event which is usually deferred until the child is two or three years old. Sina married when she was seventeen or eighteen, and had twins ; Masina, after at least fifteen years' interval since she last suckled a child, took possession of one of them, applied it to her breast, and milk flowed, so that she was enabled to nurse the child entirely. Masina was at this time at least forty years of age. I have witnessed several other cases analogous to this. A grandmother of forty—or even less, for they become withered at an early age—when left at home with a young child, applies it to her own shrivelled breast, and milk soon flows. In some cases, as that of Mabogosing, the chief wife of Mahure, who was about thirty-five years of age, the child was not entirely dependent on the grandmother's breast, as the mother suckled it too. I had witnessed the production of milk so frequently by the simple application of the lips of the child, that I was not therefore surprised when told by the Portuguese in Eastern Africa of a native doctor, who, by applying a poultice of the pounded larvæ of hornets to the breasts of a woman, aided by the attempts of the child, could bring back the milk. Is it not possible that the story in the 'Cloud of Witnesses,' of a man during the time of persecution in Scotland putting his child to his own breast, and finding, to the astonishment of the whole

country, that milk followed the act, may have been literally true? It was regarded and quoted as a miracle; but the feelings of the father towards the child of the murdered mother must have been as nearly as possible analogous to the maternal feeling; and as anatomists declare the structure of both the male and female breasts to be identical, there is nothing physically impossible in the alleged result. The illustrious Baron Humboldt quotes an instance of the male breast yielding milk; and though I am not conscious of being over-credulous, the strange instances I have examined in the opposite sex make me believe that there is no error in that philosopher's statement."

Of all the changes which take place in the breast during pregnancy, those in the areola are the most important and most trustworthy. They begin about the second month in a deepening of the hue, a tumescence, a moistening of the surface, and an enlargement of the small glands on them.

Dr. Montgomery has described these changes as follows:—"During the progress of the next two or three months the changes in the areola are in general perfected, or nearly so, and then it presents the following character:—a circle around the nipple, whose colour varies in intensity according to the particular complexion of the individual, being usually



much darker in persons with black hair, dark eyes, and sallow skin than in those of fair hair, light-coloured eyes, and delicate complexions. The area of this circle varies in diameter from an inch to an inch and a half, and increases in most persons as pregnancy advances, as also does the depth of colour. I have seen the areola at the time of labour almost black, and upwards of three inches in diameter, in a young woman of very dark hair and complexion; while in another instance its breadth around the base of the nipple did not at any time of gestation amount to a quarter of an inch, and at first was not more than an eighth. This circle, however, narrow as it was, was studded at nearly regular intervals with the glandular tubercles, which were not unlike a ring of beads." Around the deep-coloured circle immediately surrounding the nipple appears another ring of a much fainter tint, called the secondary areola. This has a mottled appearance, which has been aptly compared to the effects of drops of rain falling on a tinted surface, and discharging the colour. This symptom is more valuable in a first than in a subsequent pregnancy, for after the first the areola remains permanently larger and darker.

The dark colour is due to a deposition of pigment in the skin. Similar pigmentary deposits are met with elsewhere. There is often a dark line running

from the pubes up to the navel, and from thence on again to the lower end of the breast-bone. Around the navel it forms a dark circle: a dark circle is sometimes also formed around the eyes. Discoloured patches are occasionally seen on other parts of the body—as the forehead, face, or neck—which may disappear after labour, but may remain permanently.

Soon after conception the womb begins to grow rapidly: it becomes heavier, and sinks lower in the pelvis. This gives rise to a flattening of the abdomen below the umbilicus—between that point and the pubes—and has given rise to the French proverb—“*En ventre plat, enfant il y a.*” At this time there is frequently some urinary trouble—a frequent desire to pass water. From the third to the fourth month the womb, which had sunk somewhat in the pelvis, has attained a size too large for that cavity to contain it, and consequently it rises into the cavity of the abdomen. Now the abdomen instead of being flattened is swollen: the woman feels herself larger, her clothes are tight, and she has a sense of fulness. At the same time the womb may be distinctly felt as a round, globular, smooth mass rising from the pelvis.

The womb itself has also undergone marked changes—changes in shape and consistence. The neck has become enlarged, very much softer, and its opening bigger. The glands on its surface are more marked,



and can be easily felt. The circulation through the organ has much increased, and the lining membrane of the neck and the vagina has become darker, and of a livid or violet colour.

A symptom which is popularly regarded as an absolutely certain sign of pregnancy is the sensation felt by the woman and called "quickening." The term was applied to convey the erroneous idea that the child then became alive or quick, and that it was not so before that event. This is known to be incorrect, inasmuch as the child or embryo is alive from the first, though its life is a lower form of life than it is after the fifth or sixth month, just as the life of a child an hour before birth is a lower form of life than that it possesses an hour after birth. Marvellous statements have been made, and discussions carried on, as to the time when the child first possesses a soul, but we cannot say that this mystery has been made any clearer by any statements that have been made regarding it. Let it suffice here to say that from the time of conception there is life in the embryo, simple though it be when compared with the higher life of a born child or an adult man, yet too complex to be solved by the greatest philosopher.

There can be no doubt that quickening is of some value in the diagnosis of pregnancy. At the same time its value has been greatly over-rated. It is

thought by women generally not only to mark the time when the embryo first starts into life, but also to occur always at the middle of pregnancy—at about four and a half months. Usually it happens about the end of the fourth month, or, to give a wider range and be more accurate, between the fourteenth and eighteenth weeks. It sometimes takes place earlier—as early as the tenth week—but this is very rare. In many cases it does not happen until much later, and in some not at all.

The sensation felt at the time is described differently by different women. They say it is a peculiar flutter, a tapping, or a pulsation or a thrill in the region of the womb, sometimes a tremulous motion like that of a little bird held in the hand. Dr. Montgomery describes the phenomena as follows:—“Under ordinary circumstances when quickening does occur, but especially if it happens with the sudden ascent of the uterus from the pelvis, the woman is apt to feel an unusual degree of nervous agitation, which not unfrequently ends in faintness, or even complete syncope, after which she is sensible of a slight fluttering sensation, which from day to day becomes more distinct, until she fully recognises the motions of the child.”

The causes of these phenomena are a matter of question, and subject to considerable difference of



opinion. Some believe that they are due to the movements of the child, and that the mother at that time becomes conscious of them for the first time—this is the more generally received opinion; others believe they are due to the sudden ascent of the womb from the pelvis to the abdominal cavity; while a third party refers them to the first contractions of the uterine wall. It is probable that the three views are correct, for the sensations described by different women must be ascribed to different causes. In one case they are due to the movements of the child, in another to uterine contractions, and in a third to sudden ascent of the uterus; but more than one may co-operate in producing the sensation.

From this time onward the mother becomes more conscious of peculiar sensations, and there is no room to doubt that these sensations are due to the movements of the child—that is, when pregnancy is present. We say when pregnancy is present, because we shall see by-and-by that such sensations ascribed to the movements of the child are sometimes felt by women who are not pregnant, even by women who have had children, and therefore know the character of the sensations due to the child's motions in the uterus. Some women feel these sensations only in a very slight degree; others, again, feel the greatest annoyance, discomfort, and even pain from them—they

cannot sleep, and therefore seek advice with a view to control them ; others, again, never feel the child at all from the beginning to the end of pregnancy.

Again, it not unfrequently happens that women believe themselves pregnant, and have many or all the subjective sensations associated with that state, while in reality they are not in the family way. These are very peculiar cases. They may occur at any age from twenty-five to fifty, but usually about the change of life — during the “dodging-time.” Often this happens to women who wish to believe they are in an interesting state, and are desirous of having a family. But it happens also to women who have had several children, who ought to know what the sensations and feelings associated with pregnancy are, and who have not the least desire to have an addition to their already large families. Several such cases have come under our observation, and in some cases we have found it impossible to persuade them of their error. Time alone—that great solver of intricate questions and knotty points—will convince them of their mistake ; and even against its unanswerable arguments they persevere in their belief (for after the usual period of pregnancy has elapsed, up to the tenth, twelfth, fourteenth month, or even longer, they prove faithful to their creed), until finally they renounce it for very shame.



The causes of these abnormal sensations are various: it may be a false conception, a tumour of the uterus or ovary, some disease of the organs of generation, twitching of the muscles of the abdomen, retention of the menstrual discharge in the womb, movements of gas in the intestines, or an unnatural pulsation of the large vessels of the abdomen. We have said enough to show that quickening—though a valuable sign of pregnancy—cannot be depended upon as a sure sign of that state.

After the time of quickening—or, more accurately, after the womb has ascended from the pelvic into the abdominal cavity—the organ rapidly grows in size, and the abdomen enlarges. At the fifth month the upper border of the uterus reaches to a point midway between the pubes and navel. The navel, which had hitherto been considerably depressed, becomes now less so. In the sixth month the womb reaches to a level with the navel, and the navel itself is almost on a level with the surrounding surface—the depression is almost effaced.

In the seventh month the womb is still larger, and inclined to the right side, and reaches to a point midway between the navel and the lower end of the breast-bone. The depression of the navel is quite effaced.

In the eighth month the organ reaches the lower

end of the breast-bone, and becomes wider. The navel itself is not only not depressed, but is now pushed forward and prominent beyond the neighbouring surface.

In the ninth month the womb sinks somewhat lower, and the navel becomes still more prominent.

During these—the last four months of pregnancy—the symptoms become more marked, and certain indisputable signs of the condition make themselves manifest. These refer chiefly to the child, and most of them require special knowledge and skill for their detection and recognition—especially knowledge and skill in auscultation, though others may be obtained by careful manipulation or palpation.

If the hand be laid flat on the abdomen, and retained there for a little time, certain peculiar movements will be felt. These may be due to three causes. In the first place they may arise from the contraction of the uterus itself. In this case the tumour formed by the gravid womb becomes harder, firmer, more tense and resisting, and after a while relaxes again. These contractions take place at intervals from the fourth or fifth month; indeed, from the time the uterus can be felt in the abdomen until the end of pregnancy.

But if the hand be still retained in the same position on the abdomen, other movements will soon make themselves felt. These are little blows or kicks



given suddenly—perhaps two or three in succession—and then all is quiet again. They may, however, be continued for some time, especially during the later months; indeed, as has been already stated, they may be so frequent and strong as to be a source of great annoyance, and even of sleeplessness.

Other sensations may be felt by this method which are unconnected with the womb, and these may be mistaken for those produced by the movements of the child or the contractions of the uterine wall. They are due to the sudden contractions of the muscles of the wall of the abdomen, or to the movements of gas in the intestine. In some cases it is difficult to distinguish between the sensations felt from this cause and those arising from pregnancy, for both may have very much the same characters; so that feeling movements in the abdomen, unless they can be distinctly recognised as due to the motions of the child, is not a sure sign of pregnancy.

Another sign is repercussion or ballottement. This may be practised by simple abdominal palpation, or through the vagina. The latter method is more generally adopted by physicians, inasmuch as it is more certain in its results. The sign depends upon the fact that the child is a solid body floating in a fluid, and that certain movements can be given to that body so as to make its presence felt. If the woman lie

on her side, and a hand be laid flat on the abdomen under the projecting womb, so that a hard resistance be felt, and then a smart sharp jerk upwards be given, this feeling of hard resistance will disappear, and immediately afterwards a perceptible tap will be felt, and the feeling of resistance returns. These phenomena are explained in the following manner:—By the sudden jerk the child, which has gravitated to the lowest possible position, is pushed upwards, floating in its surrounding fluid; immediately, however, it begins to descend again by gravitation, and strikes the wall of the uterus at the spot where the hand is applied.

This is not a certain sign of pregnancy, though in the infinite majority of cases it may be relied upon; yet the sign may be obtained in other conditions than pregnancy. For instance, in some rare forms of ovarian tumours a solid body is found floating in the fluid of a cyst—a condition which would give rise to repercussion or ballottement under proper manipulation. The known rarity of such cases, however, render the ballottement a valuable sign of pregnancy.

But by palpation or manipulation through the abdominal wall much more may frequently be learnt than simply the existence of pregnancy. If the walls of the abdomen be not too rigid or too thick from the deposition of fat, the shape of the child can be without much difficulty made out; its limbs, its



buttocks, its back, and its head can be distinguished, and in this way the exact position which it occupies may be recognised. Moreover, by taking advantage of this knowledge, one of the greatest recent advances in midwifery and the treatment of labour has been attained.

Knowing the position occupied by the child or fœtus in the womb, knowing that it floats therein surrounded by a fluid, and knowing that by slight force it can be easily moved in that fluid, it became evident that by careful and well-directed manipulation the position of the child could be altered at will, and practice has abundantly proved the accuracy of the inference. When it is known that the child occupies an unnatural position, or a position which is unfavourable to birth, or which renders labour prolonged and consequently dangerous to the mother and child, advantage may and should at once be taken of the power of changing the position of the child in the manner described into a more natural or favourable one. In this way great and serious danger may often be avoided. This method of "turning," as it is called, is one of the greatest triumphs of modern obstetric art.

But by far the most reliable of all the signs of pregnancy is the beating of the child's heart. This is an absolutely certain symptom of that state, and

with ordinary care no other can be mistaken for it. Indeed, nothing can simulate it so as to deceive a careful observer. It requires for its recognition, however, a skilled observer, an educated ear. It is known that by listening over the heart of a grown-up person certain sounds are heard. These sounds are double, and repeated about seventy or eighty times a minute, and are produced by the action of the heart. In a similar manner the heart of the child produces double sounds, which become audible by means of the stethoscope about the fifth month, and continue to increase in loudness from that time up to the end of pregnancy. They are heard generally over a limited spot of the abdomen. The position of this spot varies in different cases, and in the same case, according to the position of the child. The sounds are much more frequent than the sounds of the mother's heart or the beats of her pulse, being from 120 to 160 a minute. The sounds are double, and have received the name of "tic-tacs," from their resemblance to the sounds of a watch. Several things may be learnt, with a certain degree of probability, by observing the character and position of the sounds of the child's heart. As the place in which the sounds are heard is a very limited area, and varies in position with the position of the child, the latter can to a certain extent be inferred from the former. Moreover, recent



investigations go to show that the number of the sounds per minute varies more or less with the sex of the child. If the pulse be very quick, the child is a female; if slow, the child is a male. The question has already been discussed.

Besides, it is possible by auscultation to detect in some cases twin pregnancy. If two distinct foetal pulsations can be heard, audible at distant spots of the abdomen, there can be but one inference—that is, that there are two hearts producing the two pulsations; and if two hearts, then two children.

When the foetus is dead, the heart does not beat, and the heart sounds are not produced, and consequently cannot be heard, so that pregnancy may exist without foetal heart sounds. In some cases also of ordinary healthy pregnancy it is not possible after the most careful examination to detect the heart sounds; so that, though the presence of the sounds of the child's heart is an indisputable sign of pregnancy, yet the absence of such sign does not negative the condition.

Another sign of pregnancy is the funic souffle. It is the sound produced when the funis or chord is pressed upon. It is, however, very rarely audible. When heard, it is a sure sign of the presence of pregnancy.

The uterine or placental "souffle or bruit" is yet

another sign of the state under consideration. It becomes audible about the fourth month of pregnancy. It comes and goes. It is heard for a short time, and then disappears, and again returns in a short time. Various theories have been advanced with regard to the mode of its production. It is not characteristic of pregnancy. It, or a sound similar to it, is often heard in other conditions, as when fibrous tumour is present.

Besides these, many other sounds may be heard over the abdomen: sounds due to the movements of the child—these are dull thuds accompanied by a sudden jerk or impulse; sounds due to the movements of gas and fluids in the intestines, &c.

It is evident, then, that there are only two absolutely sure signs of pregnancy, and these can be recognised with certainty by a skilled observer only—an observer skilled in auscultation and manipulation. These signs are the sounds of the heart of the child or foetus, and the sensations produced by the different parts of the child, so as to distinguish those parts. It is not enough to recognise the presence of a solid body floating in a fluid, though this would supply evidence of the probability approaching to certainty of the presence of pregnancy; but the condition is met with, though infinitely rarely, in tumours. On the other hand, the sounds of the foetal heart cannot be



simulated, and though pregnancy may exist and the sounds be not present (as when the child is dead) or inaudible; yet, when heard, there can be no question about the diagnosis.

The condition of the nipple and its surrounding coloured ring has been said to be absolutely characteristic: in most cases, doubtless, it is characteristic, but disease may give rise to a condition of breasts undistinguishable from that of pregnancy.

During the later months of pregnancy, then, certain sure signs of that condition may be discovered by auscultation and palpation, or manipulation of the abdomen, but during the earlier months no such signs are discoverable; yet, by a careful examination of the breasts, abdomen, and womb through the vagina, a conclusion may be arrived at possessing an amount of probability approaching to certainty.

Besides the symptoms enumerated, many curious changes in the dispositions, habits, and constitutions of women occur now and then during pregnancy, and though these cannot be accounted as symptoms of that condition in the generality of women, yet in those in whom they have occurred once they may be so considered. Changes of disposition, for instance, sometimes happen during this period. A good-tempered woman and well-disposed may become irritable and malicious; fortunately, on the other hand, every now



and then a stepmother, who is the terror of the smaller members of the family, becomes the light of the household, kindness itself. Some women lose their memory, others sight, others their voice, to regain them again after labour. Nervous disorders of pregnancy take every shape and form. Sometimes, instead of the loss of a sense, it is the gain of one that occurs. Women who are melancholy and pensive, and even imbecile, have regained the perfect use of their mental faculties during pregnancy, to lose them again after parturition. Women who are deaf have regained the sense of hearing. Such occurrences are at present inexplicable, but they are doubtless due to an increase of nervous sensibility.



## CHAPTER XI.

## THE DURATION OF PREGNANCY.

THIS is a subject in which every member of society, and especially every woman, is interested. Considering the frequency of the occurrence of the condition, and, as might be thought at first sight, the material at hand for the question, it would seem strange that it is even now a disputed question. There is, however, no doubt, and all are agreed upon this point, that the average duration of pregnancy is about nine calendar or ten lunar months—from 273 to 280 days. But at the same time, there is equally little doubt that the duration of this state may vary, but to what degree this variation may amount has been the subject of hot debate. The law of England does not fix the limit of variation, and wisely. Blackstone says:—"From what has been said, it appears that all children born before matrimony are bastards by our law; and so it is of all children born so long after the death of the husband, that by the usual course of gestation they could not be begotten by him. But this being a matter of some uncertainty, the law is not exact to a few days."

By the Code Napoléon, the duration of pregnancy is fixed at three hundred days; by the Scotch law, ten

solar months is fixed as the longest duration of the condition; by the Prussian law, 302 days; by the Roman law, ten lunar months.

Some cases of undoubted prolonged gestation have occurred, but they are by no means numerous; indeed, many of the cases recorded as such cannot be accepted, for the evidence in their favour is too imperfect. At the same time, there are undisputed instances of cases in which pregnancy lasted 290, 300, and even 317 days—that is, a period of ten, twenty, and even thirty-seven days beyond the usual forty weeks.

Some authors state that pregnancy may last a year, or even two or three. The Chinese say that pregnancy usually lasts seven or eight months, and sometimes one, two, or even four years.

In Egypt, it has been decided by the interpreters of the law that “children may remain in their mother’s womb for four years. After five years, this cannot be.”

On the other hand, the duration of pregnancy may be less than the traditional nine months, and the child be fully and perfectly developed. Children born at the eighth month may be of full size, full weight, and full development. Women differ by several days in the duration of pregnancy, probably because of some peculiarity inherent in themselves. In other words, every woman has a period of gestation proper and peculiar to herself. In some cases, this period is



less by three or four weeks, in others more by four or five weeks, than the generally-accepted forty weeks. Still, the great majority of women are confined in the fortieth week of pregnancy.

The time of expected confinement is often estimated from the time of quickening. This, though in some cases of a certain value, is liable to mislead greatly. When made the basis of calculation of the time of expected confinement, it is generally regarded as the middle of pregnancy. We have already pointed out, however, that quickening may occur at any time after the tenth week; and though it may happen at the end of the fourth month, yet it usually happens between the fourteenth and eighteenth weeks; and we have also said that it may not happen at all. It should, however, be called in as an auxiliary to decide the time of confinement, rather than be made the basis for the calculation. The usual method adopted by physicians is to calculate from the last day of the last menstrual flow. From that time they count 273 days, and in the week after the confinement may be expected—that is, between 273 and 280 days after the cessation of the last catamenia. Thus, suppose the catamenia ceased on the 10th of March, labour would be expected between December 8th and December 15th.

There is sometimes a difficulty in estimating the date of labour by this method, because, as we have

mentioned, the menses may not have been suppressed after conception, but may have returned for two, three, or four periods afterwards. In such cases, quickening becomes of value, in order to correct any error that the appearance of the menses may have given rise to. In such cases, however, the time of expected confinement must necessarily be very uncertain, and cannot be calculated with any accuracy. Other cases, again, occur in which it becomes difficult, or even impossible, to determine the date of labour. For instance, a woman has ceased to menstruate in March—in July she becomes pregnant. In such a case, it is evident that the duration of pregnancy cannot be dated from the last appearance of the menses. Were it done, it would lead to an error of three or four months. Quickening would become valuable as an auxiliary in this case again; but by far the best method of estimating the duration of pregnancy in such cases, is to examine the abdomen carefully, and see how high the uterus reaches. In this manner, moderately accurate conclusions may be arrived at.

The annexed table will show at a glance when labour may be expected to take place in a person who has always been regular. The dates in the first column are those of the last appearance of the menses; those in the second, 273 days, those in the third, 280 days from that date.



TABLE SHOWING THE DURATION OF PREGNANCY.

Last Day of Last Menstrua- tion.	Time of Expected Confinement.		Last Day of Last Menstrua- tion.	Time of Expected Confinement.	
	Earliest, 273 Days.	Latest, 280 Days.		Earliest, 273 Days.	Latest, 280 Days.
January	October	October	February	November	Nov- mber
1	1	8	14	14	21
2	2	9	15	15	22
3	3	10	16	16	23
4	4	11	17	17	24
5	5	12	18	18	25
6	6	13	19	19	26
7	7	14	20	20	27
8	8	15	21	21	28
9	9	16	22	22	29
10	10	17	23	23	30
11	11	18			December
12	12	19	24	24	1
13	13	20	25	25	2
14	14	21	26	26	3
15	15	22	27	27	4
16	16	23	28	28	5
17	17	24	March		
18	18	25	1	29	6
19	19	26	2	30	7
20	20	27		December	
21	21	28	3	1	8
22	22	29	4	2	9
23	23	30	5	3	10
24	24	31	6	4	11
		November	7	5	12
25	25	1	8	6	13
26	26	2	9	7	14
27	27	3	10	8	15
28	28	4	11	9	16
29	29	5	12	10	17
30	30	6	13	11	18
31	31	7	14	12	19
February	November		15	13	20
1	1	8	16	14	21
2	2	9	17	15	22
3	3	10	18	16	23
4	4	11	19	17	24
5	5	12	20	18	25
6	6	13	21	19	26
7	7	14	22	20	27
8	8	15	23	21	28
9	9	16	24	22	29
10	10	17	25	23	30
11	11	18	26	24	31
12	12	19			January
13	13	20	27	25	1

TABLE SHOWING THE DURATION OF PREGNANCY (Continued).

Last Day of Last Menstruation.	Time of Expected Confinement.		Last Day of Last Menstruation.	Time of Expected Confinement.	
	Earliest, 273 Days.	Latest, 280 Days.		Earliest, 273 Days.	Latest, 280 Days.
March	December	January	May	February	February
28	26	2	8	5	12
29	27	3	9	6	13
30	28	4	10	7	14
31	29	5	11	8	15
April			12	9	16
1	30	6	13	10	17
2	31	7	14	11	18
	January		15	12	19
3	1	8	16	13	20
4	2	9	17	14	21
5	3	10	18	15	22
6	4	11	19	16	23
7	5	12	20	17	24
8	6	13	21	18	25
9	7	14	22	19	26
10	8	15	23	20	27
11	9	16	24	21	28
12	10	17			March
13	11	18	25	22	1
14	12	19	26	23	2
15	13	20	27	24	3
16	14	21	28	25	4
17	15	22	29	26	5
18	16	23	30	27	6
19	17	24	31	28	7
20	18	25	June	March	
21	19	26	1	1	8
22	20	27	2	2	9
23	21	28	3	3	10
24	22	29	4	4	11
25	23	30	5	5	12
26	24	31	6	6	13
		February	7	7	14
27	25	1	8	8	15
28	26	2	9	9	16
29	27	3	10	10	17
30	28	4	11	11	18
May			12	12	19
1	29	5	13	13	20
2	30	6	14	14	21
3	31	7	15	15	22
	February		16	16	23
4	1	8	17	17	24
5	2	9	18	18	25
6	3	10	19	19	26
7	4	11	20	20	27



TABLE SHOWING THE DURATION OF PREGNANCY (*Continued*).

Last Day of Last Menstrua- tion.	Time of Expected Confinement.		Last Day of Last Menstrua- tion.	Time of Expected Confinement.	
	Earliest, 273 Days.	Latest, 280 Days.		Earliest, 273 Days.	Latest, 280 Days.
June	March	March	August	May	May
21	21	28	1	1	8
22	22	29	2	2	9
23	23	30	3	3	10
24	24	31	4	4	11
		April	5	5	12
25	25	1	6	6	13
26	26	2	7	7	14
27	27	3	8	8	15
28	28	4	9	9	16
29	29	5	10	10	17
30	30	6	11	11	18
July			12	12	19
1	31	7	13	13	20
	April		14	14	21
2	1	8	15	15	22
3	2	9	16	16	23
4	3	10	17	17	24
5	4	11	18	18	25
6	5	12	19	19	26
7	6	13	20	20	27
8	7	14	21	21	28
9	8	15	22	22	29
10	9	16	23	23	30
11	10	17	24	24	31
12	11	18			June
13	12	19	25	25	1
14	13	20	26	26	2
15	14	21	27	27	3
16	15	22	28	28	4
17	16	23	29	29	5
18	17	24	30	30	6
19	18	25	31	31	7
20	19	26	September	June	
21	20	27	1	1	8
22	21	28	2	2	9
23	22	29	3	3	10
24	23	30	4	4	11
		May	5	5	12
25	24	1	6	6	13
26	25	2	7	7	14
27	26	3	8	8	15
28	27	4	9	9	16
29	28	5	10	10	17
30	29	6	11	11	18
31	30	7	12	12	19
			13	13	20

TABLE SHOWING THE DURATION OF PREGNANCY (Continued).

Last Day of Last Menstruation.	Time of Expected Confinement.		Last Day of Last Menstruation.	Time of Expected Confinement.	
	Earliest, 273 Days.	Latest, 280 Days.		Earliest, 273 Days.	Latest, 280 Days.
September	June	June	October	July	August
14	14	21	27	27	3
15	15	22	23	28	4
16	16	23	29	29	5
17	17	24	30	30	6
18	18	25	31	31	7
19	19	26	November	August	
20	20	27	1	1	8
21	21	28	2	2	9
22	22	29	3	3	10
23	23	30	4	4	11
		July	5	5	12
24	24	1	6	6	13
25	25	2	7	7	14
26	26	3	8	8	15
27	27	4	9	9	16
28	28	5	10	10	17
29	29	6	11	11	18
30	30	7	12	12	19
October	July		13	13	20
1	1	8	14	14	21
2	2	9	15	15	22
3	3	10	16	16	23
4	4	11	17	17	24
5	5	12	18	18	25
6	6	13	19	19	26
7	7	14	20	20	27
8	8	15	21	21	28
9	9	16	22	22	29
10	10	17	23	23	30
11	11	18	24	24	31
12	12	19			September
13	13	20	25	25	1
14	14	21	26	26	2
15	15	22	27	27	3
16	16	23	28	28	4
17	17	24	29	29	5
18	18	25	30	30	6
19	19	26	December		
20	20	27	1	31	7
21	21	28		September	
22	22	29	2	1	8
23	23	30	3	2	9
24	24	31	4	3	10
		August	5	4	11
25	25	1	6	5	12
26	26	2	7	6	13



TABLE SHOWING THE DURATION OF PREGNANCY (*Continued*).

Last Day of Last Menstrua- tion.	Time of Expected Confinement.		Last Day of Last Menstrua- tion.	Time of Expected Confinement.	
	Earliest, 273 Days.	Latest, 280 Days.		Earliest, 273 Days.	Lat-st, 280 Days.
December	September	September	December	September	September
8	7	14	21	20	27
9	8	15	22	21	28
10	9	16	23	22	29
11	10	17		23	30
12	11	18	24		October
13	12	19	25	24	1
14	13	20	26	25	2
15	14	21	27	26	3
16	15	22	28	27	4
17	16	23	29	28	5
18	17	24	30	29	6
19	18	25	31	30	7
20	19	26			

## CHAPTER XII.

## THE DISORDERS OF PREGNANCY.

Vomiting—Increased Secretion of Saliva—Enlargement of the Veins of the Legs—Piles—Urinary Troubles—Flooding.

WHEN enumerating the signs of pregnancy we spoke of the sympathy between other organs and the uterus ; and although this is almost at all times manifested, yet it is peculiarly marked when conception has taken place. To this peculiar relation is due many of the disorders of pregnancy, though others arise from the pressure exercised by the enlarged uterus.

One of the first symptoms following conception is *vomiting and nausea*. This is present at some time in almost all pregnancies. It is due to the sympathy between the stomach and the uterus. Being present in nearly every case of gestation, morning sickness may be regarded as a natural condition ; yet, in some cases, the sickness and nausea are so excessive as to endanger the life of the patient, and in such cases they cannot be regarded as normal, but as morbid. It is generally believed that women suffer more from sickness during their first than during their other



pregnancies. It is also said to be worse when the foetus is a male than when it is a female. Normally the sickness is limited to the morning; it is most common on getting out of bed in the morning. The vomited matter is watery, acid, sometimes bile, and mucus. The appetite is not lost, and the patient makes a hearty breakfast.

In cases where the sickness assumes the character of disease, the stomach refuses everything. No food of any kind is retained. This may go on for weeks, and then cease suddenly; or it may go on for months, and exhaust the patient's strength. The patient becomes thinner and thinner; she faints with the least exertion. The face becomes worn and anxious, and the eyes sunken. Vomiting continues even when the stomach is empty; there may be severe pain in the pit of the stomach; and unless the vomiting be controlled the patient dies. Many such cases have occurred.

The *treatment* of such cases is sometimes difficult. The vomiting may be so intractable as to defy the influence of all medicines. In most cases it can be controlled, and generally by simple means. A cup of tea in bed, or breakfast before getting up, effectually stops it in some cases. Some will retain cold and reject hot food. Ice is of great service in all kinds of vomiting. Place bits of it in the mouth and let them melt.

The bowels should be carefully attended to. They should be made to act regularly, and never be allowed to become constipated. If the liver be sluggish, a dose of blue pill now and then will prove of use, and afterwards a black draught, or a dose of castor oil. Most useful are Friedrichshall and Pullna water and Carlsbad salts, taken two or three times a week, or even every morning if necessary. Few things are of equal service with these mild purgatives. Effervescing draughts are sometimes useful. Bitters and soda, hydrocyanic acid, creosote, and salts of cerium are useful in their turn.

External applications are occasionally useful, as a small blister, mustard poultices, and turpentine stupes to the pit of the stomach. A liniment of belladonna or camphor applied to the same part in some cases proves effectual.

The patient should keep quiet, in fact rest in the recumbent position. She should be careful what she eats—never to take anything that she knows disagrees with her, and to take the most nourishing food the stomach will retain in small quantities. If there be great exhaustion stimulants are useful ; they act best in an effervescing form, as champagne, or brandy and soda or seltzer. At the same time it is better to avoid them unless they are absolutely necessary.

Should the vomiting resist all treatment, and the



stomach reject everything, it becomes necessary to keep up the strength of the exhausted and feeble patient by means of injections of food into the bowel—by nutritive clysters. These should consist of beef tea. About two ounces should be administered each time. If necessary, a little brandy should be added each time. It may be repeated every four hours.

Cod-liver oil or olive oil may also be rubbed into the skin, with a view to keep up the strength by cutaneous absorption. But the vomiting may go on to such a degree as to excite the uterus to contract and expel its contents. Abortion or premature labour then occurs.

This gives a clue to a method of treatment in severe and intractable cases. Nature is a great teacher, a great saver as well as a great destroyer. In this case nature destroys the child and saves the mother; the child's life is sacrificed, and the mother's spared; and seeing this we learn to imitate it. The cases in which such extreme measures are called for are of extreme rarity. It happens only when the mother's life is in imminent and urgent peril; then it becomes a duty to act promptly and empty the uterus, and thus save the only life that can be saved, unless, indeed, it be in the later months of pregnancy, when both lives—the mother's and the child's—can in this manner be spared. Repulsive as it is to destroy the child, still it

is the highest duty, and no hesitation should be felt in sacrificing it in the circumstances stated, for unless this be done, and done promptly, not only the life of the child, but that of the mother will also be lost. We say this because women have died from the effects of vomiting during pregnancy, and numerous cases have occurred in which the vomiting has ceased as soon as the womb has been emptied. At the same time the greatest precautions should be observed before this last step is taken, for some women have recovered from the greatest danger when it was thought it had been impossible for them to survive. That such cases have perfectly recovered should not be lost sight of, and abortion should not be induced until the peril is imminent.

Some women are better when pregnant than at any other time. They eat better, grow fatter and stronger. Others, again, lose their appetite, though there is no excessive vomiting; others have depraved tastes, desiring indigestible and injurious food. Some suffer pain in the pit of the stomach, especially when food is taken; others have water-brash and acidity or heart-burn. All these symptoms point to the intimate sympathy between the stomach and uterus, and warn the future mother to be careful of her diet. She should avoid foods that are likely to turn acid, as those which contain much sugar, and those which are likely to



generate gas, as well as all indigestible and in-nutritious substances. Effervescing draughts of soda and lime-juice or citric acid relieve the heartburn temporarily ; in other cases acidulated bitter draughts, as the dilute hydrochloric acid and calumba, with an occasional dose of blue pill, cure it permanently.

*Salivation, or an Increase in the Secretion of Saliva.*

—There is, probably, in all cases of pregnancy an increase of salivary secretion, but this does not become apparent. In some cases, however, it becomes a very troublesome symptom. The saliva is constantly running out at the corners of the mouth, and may amount in twenty-four hours to two or three pints. It occurs usually at an early period, and lasts for three or four months, but sometimes during the whole period of pregnancy. The mouth looks healthy, but the salivary glands are somewhat enlarged.

The *treatment* should be general as well as local. The bowels, which are usually constipated, should be acted upon freely. A wash for the mouth, containing borax or chlorate of potash, sometimes proves useful. Small blisters behind the ears, or at the back of the neck, sometimes relieve. In the majority of cases the trouble ceases of itself ; in some instances, however, it resists all treatment, lasting until pregnancy is over.

Constipation is a condition frequently accompanying pregnancy, and when allowed to go on for a long

time it may prove troublesome and serious in its results. Should the constipation come on suddenly, and be followed within a short time by violent sickness, rupture should be looked for. Such a condition is of a most grave character, and requires very careful treatment. Purgatives should be avoided, and the bowels quieted. The rupture should be reduced; and, should this be impossible, an operation should be performed for its relief. Unless the bowel be returned by means of manipulation or operation, death is certain.

In simple constipation, the diet should be carefully regulated, with a view to regulate the bowels; fruit, vegetables, &c., should be taken. As an aperient when required, Friedrichshall or Pullna water, manna, citrate of magnesia, or castor oil are the most useful. Clysters of soap and water are frequently recommended, and are of great use in some cases; but for regulating the bowels, we know of nothing better than the mineral waters above named.

Occasionally, diarrhoea occurs during pregnancy. When slight, it should not be interfered with, but treated simply by diet. The patient should avoid fruit and vegetable diet, and take milk, eggs, rice, &c. Should it become troublesome, a little bismuth generally stops it.

*Enlarged Veins (Varicose Veins).*—Enlargement of the veins of the legs is a very frequent occurrence



towards the end of pregnancy. It appears in a first, and becomes worse with every succeeding pregnancy. It is accompanied by much pain of an aching character. The veins become sometimes very large, and appear like huge cords—almost like ropes standing out above the surrounding surface—hard and tender. The skin and tissues around them become red and inflamed. The redness is of an angry dusky hue. The whole neighbouring tissue becomes hard and resistant. The inflammation may go on to ulceration, or a vein may burst, and profuse hæmorrhage follow.

The *treatment* consists in regulating the bowels, and the application of a bandage over the whole limb, or of an elastic stocking. Rest in the recumbent posture is imperative. Should a vein burst, the bleeding should be stopped by pressure on the lower side of the opening, as the blood in the veins flows upwards towards the heart.

*Piles (hæmorrhoids)* are exceedingly common during pregnancy. They are due to constipation, or to the pressure of the womb on the vessels above. They consist of little swellings around the opening of the bowels, projecting out of it. They cause but little pain at first, though they are irritable; but when they are inflamed or constricted after a straining at stool, they give rise to the most exquisite agony. They

sometimes bleed profusely, after which considerable relief is obtained.

The *treatment* of piles is that of the bowels. Gentle laxatives to prevent constipation—castor oil, confection of senna, with a little cream of tartar, sulphur, or confection of sulphur. Strict cleanliness should be observed. The part should be often sponged with cold or tepid water, and an ointment of gallic acid applied. When inflamed the patient should rest, and the part be fomented with an infusion of poppy-heads ; or a leech or two may be applied to the neighbouring part. When strangulated, the part should be pushed back into the bowel when that becomes possible. Frequent bathing with hot anodyne solutions, so as to deaden the sensibility, will hasten the possibility of this operation.

Neuralgia of the face is sometimes very troublesome and severe during pregnancy. It may last during the whole of pregnancy, or be limited to the earlier months. It is due sometimes to bad teeth ; at other times no discoverable cause can be found. Should there be bad teeth, they should be removed ; but if there be any reason why this operation be deferred, sedatives should be taken to relieve the suffering. These are powerful medicines, and should be taken only by medical advice. Together with sedatives, tonics should be taken ; quinine and iron



and bark are the best. During the whole of the time the bowels should be kept open.

*Urinary troubles* are very common during pregnancy. There may exist from the commencement to the end of that state, a constant desire to pass water, or an involuntary escape of urine. The former occurs during the early, the latter more often during the later, months. In the first case the trouble is due to irritation, in the second to pressure of the large womb upon the bladder.

In the first class of cases the diet should be regulated, malt or spirituous liquors be entirely avoided; and a few doses of a mild sedative, as extract of henbane (gr. ii.), be taken occasionally; fomentations are said to be useful.

In the second class, patience must be exercised until pregnancy is over. No local applications or medicines will relieve the condition. Strict cleanliness, however, should be observed. The parts should be frequently sponged with warm water. The thighs and private parts should be well oiled or smeared with zinc ointment, or covered or coated with flexible collodion, to prevent inflammation and excoriation. The bladder should be emptied frequently.

Sometimes, however, there is inability to pass water. In some cases this is very troublesome, and by no means free from danger. The womb presses

against the neck of the bladder, and obstructs the outlet. Urine is not passed for many hours, and the bladder becomes much distended; the distension continuing, a little involuntary dribbling occurs. The woman thinks the bladder is emptied, when in reality the distension is increasing. The cause of this is usually a displacement of the womb. It is a condition which demands immediate treatment.

Dropsy is usually seen towards the end of pregnancy, though occasionally much earlier. It is generally limited to the feet and ankles, or at most to the lower limbs. Rarely, however, it is general, affecting the whole body; the upper and lower limbs the face, the back, and abdomen being swollen. In some cases it is very slight, and requires careful observation to detect it, even in depending parts, as around the ankles; while in others the whole body is greatly swollen. When it is limited to the lower extremities it is due to pressure caused by the enlarged womb. After the womb has ascended out of the pelvis, it, as it grows, displaces the intestines and bladder, and presses upon the parts around. In this way the blood-vessels as they pass through the cavity of the abdomen, become the subject of pressure. The course of the circulating fluid in them is obstructed; the blood in its course from the lower limbs to the heart is impeded, and consequently the feet and ankles become



congested, swollen, dropsical. As pregnancy advances this swelling increases, and the legs may attain before labour an enormous size. As soon as labour is over the obstruction is removed, the current of the blood is restored, and the swelling gradually disappears. This form of dropsy is not attended with danger. Another form is that due to disease of the kidneys, or to a poisoned state of the mother's blood. When the kidneys are diseased, and perform their functions imperfectly, certain effete products are apt to accumulate in the blood, giving rise to blood-poison. During pregnancy this condition may arise, though the kidneys be apparently healthy. The first sign of this state of blood is to be found in the urine. It contains a substance called albumen, which is a part of the fluid of the blood, and of a highly nutritive character, and the filtration of this substance through the kidneys, and its loss by the urine, has a tendency to weaken and enfeeble the system. How pregnancy gives rise to this condition it is difficult to ascertain, and there is some difference of opinion with regard to this point. Some think it is due to pressure of the enlarged womb upon the blood-vessels of the kidneys causing stagnation of the vital fluid in them, as in the vessels of the lower limbs. Others believe that it is owing to poisoning of the mother's blood through the effete products of the child. In whatever

manner it is brought about, it is a condition associated with some danger, and should not be for a moment neglected. Whenever the least swelling of the face is observed, medical advice should at once be sought. Besides the inconvenience and discomfort arising from the dropsy itself, certain symptoms, sometimes of a severe character, arise from this state of blood, the most alarming of which are convulsions. These come on in fits or paroxysms. They may come on during the later months of pregnancy, or in the course of labour. They are always associated with danger to the mother, and prove in the majority of cases fatal to the child. The whole body may be affected by them, or only one side. They are accompanied by loss of consciousness, difficulty of breathing, and lividity of face. One fit only may occur, or a series of fits, and as soon as the patient is out of one she may pass into another. They are often preceded by headache, giddiness, nausea and sickness, shivering, noises in the head, depression, lassitude, and weakness of the limbs. These symptoms should always prove a warning, and should attract the pregnant woman's attention to her state of health.

The *treatment* of such convulsions when they set in is to inhale chloroform. This has proved a most valuable remedy in the fit and against their return. It is administered during the fits in order to cut them



short, and at intervals with a view to prevent them. Chloroform is a very safe anæsthetic in pregnant women and during labour, but it should be administered by a person skilled in its use only. At the same time benzoic acid or lemon-juice is given to prevent the formation of an alkaline salt in the blood, which is believed to be due to decomposition of the blood-poison, and to give rise to the fits of convulsions. The bowels should be kept freely open by injections or by purgative medicines, such as jalap, calomel, &c.

During such convulsions labour sometimes comes on, and it should be completed as soon as possible. It may be necessary to accomplish this by artificial help, as turning or the use of instruments, for it has been frequently observed that as soon as the womb is emptied the convulsions cease. This does not happen in all, but in almost two-thirds of the cases. When there are reasons for believing the child to be dead, labour is usually brought on, for the retention of a dead child in the womb is unfavourable to the mother. In some cases the convulsions cease as soon as the womb is emptied, while in others they cease gradually; they become less and less severe until they disappear entirely.

*Displacements of the Womb*—The displacements of the womb which are met with during pregnancy are similar to those which are seen in the non-pregnant;



and it is probable that the large majority of cases of displacement of the pregnant womb are due to conception taking place in an already displaced womb. It is invariably true of that form of displacement known as falling or prolapsus of the womb, though not of the displacements known as falling backward (retroversion), and falling forward (anteversion).

Falling of the pregnant womb (prolapsus) is the least common of the three forms, and is indeed very rare. During the early weeks of pregnancy the womb is lower than usual in the pelvis, and where the parts have been repeatedly dilated and relaxed by several pregnancies and labours, it is not surprising that in women who have had many children the womb is very low. At the same time it is not often that the womb is so low down as to constitute disease, or to give such trouble that women have occasion to seek advice for it. Sometimes, however, the womb is so low down that its mouth occupies the orifice of the vagina, and, indeed, some cases are recorded where the womb was entirely outside the pelvis. Such cases are of a grave and serious character, but fortunately exceedingly rare. When the womb occupies the pelvis—though lower than natural—it rises about the fourth month, as the organ enlarges, out of the pelvis into the cavity of the abdomen. In this manner the morbid condition is cured. When, however, it is



outside the pelvis, great care and management are demanded. Unless it be properly replaced during the early months, reposition will become impossible, and the womb will remain outside until labour is over. Such a condition is attended with very serious risk, and advice should be sought with regard to it at the earliest moment. In simple cases the treatment consists in lying down. In some cases, especially about the third and fourth months, lying on the face is advantageous, for it favours the ascent of the womb into the abdominal cavity. When the womb is outside it should be replaced by gentle means; and the woman should maintain the recumbent position, and wear a **T** bandage.

Falling backwards (retroversion and retroflexion) of the womb is the most frequent and by far the most troublesome of the displacements of the pregnant organ. The organ falls backward in such a manner as to press on the bowel behind and on the bladder in front. It has been said already that, as a rule, this condition is due to the occurrence of conception in an already displaced womb. This is unquestionably true with regard to the majority of cases, but it is probable that some cases are brought about gradually or suddenly by falls, efforts, lifting weights, straining, and other muscular exertion. The trouble begins usually about the third month, when the womb has attained

a size sufficient to fill the pelvis. It is then that the effects of pressure become felt, and obstruction to the evacuation of the bowels and of the bladder is caused. The bladder is not completely obstructed at once, for urine may be passed; but some is always retained, and the organ is never properly emptied. The retained portion becomes decomposed, smells offensively, causes inflammation and ulceration on the inner surface of the bladder; the bladder may become immensely distended, and at last burst, and then the urine flows into the cavity of the belly, causing inflammation and death.

Women may overlook the fact of great distension of the bladder from the fact that urine is constantly dribbling away from them involuntarily, but this is not an uncommon occurrence when over-distension and paralysis of the bladder are present. In all such cases a careful examination of the abdomen is necessary to discover the condition present, and it may be necessary to pass a catheter to draw the water with the same object. There is also constant desire to go to stool, and often inability to pass a motion. The abdomen grows bigger, and a glance at it shows an educated eye the distended bladder. It is, however, not possible to make out the exact condition of the womb, which lies at the bottom of all the trouble, without an examination of that organ through the vagina. After such



examination there is no difficulty in pronouncing upon the nature of the case.

Retroversion of the pregnant uterus is a grave condition, especially if not attended to early. The earliest symptoms indicating such a condition should draw attention, and the cause be carefully investigated. Moreover, in its early stage the condition may easily be removed, while later on it is not possible to do so, or if it be accomplished it is by emptying the womb—a course to be taken only when all others have failed.

The *treatment* consists first in emptying the bladder. A catheter should be passed, and the urine drawn away. Then clysters of soap and water should be administered so as to empty the whole of the larger bowel. Having done this, the woman should lie on her face, and the uterus will in some cases ascend spontaneously; but this happens rarely, and it becomes necessary to lift the body of the womb so as to help it out of the pelvis. This is a very delicate operation, and requires a skilled hand. Sometimes all attempts at reducing the displacement fail, the body of the uterus being too large, or having become bound down by adhesions to the neighbouring tissues of the pelvis. Under these circumstances it is necessary to reduce the size of the uterus, or to empty the organ.

Death has occurred in some cases, and in some cases even after reduction has been effected, or after

abortion has been procured. Hence the urgent need of early attention in all cases where there is retention of or difficulty in passing urine.

There are two or three cases on record in which a woman with a womb fallen back (retroversion) has gone to the full term of pregnancy, and after very prolonged labour has been delivered. Such, however, is not the usual termination; it is abortion and recovery, or death from inflammation and blood-poisoning.

Falling of the womb forward (anteversion) is the usual condition after the second month. By assuming this position the organ rises into the cavity of the abdomen. The treatment consists in rest on the back.

Discharges of a watery or of a thick yellowish fluid from the vagina are exceedingly common during pregnancy. It sometimes causes much discomfort, a burning, tingling, or constant itching about the private parts.

It should be treated by observing strict cleanliness, a tepid bath twice daily, regulated diet, and total abstinence from stimulants. The bowels should be regulated by mineral waters or sulphur, confection of senna, &c. After the use of the tepid bath an injection consisting of Goulard water or a weak solution of acetate of lead should be used; the parts should then be carefully dried with a soft cloth. If there be



general weakness, steel or acids and bitters will prove useful.

Discharge of blood during pregnancy is almost invariably a serious symptom. As a general rule, it may be said that with the exception of those cases in which menstruation takes place for a few times during the early months of pregnancy, hæmorrhage from the pregnant womb is not unaccompanied by danger; there are a few cases in which disease of the womb itself gives rise to bleeding during pregnancy. These cases are not of very common occurrence, and we will confine our remarks in this place to flooding arising from something unnatural in the pregnancy itself.

Flooding, then, is frequently the first signal of abortion. This may occur at any period of pregnancy. Threatened abortion may often be warded off, and the woman recovers and goes to her full time. Abortion is the result of disease or of accidents. Very slight accidents will give rise to it in some women; and women who have aborted once or twice get into a habit of doing so, and it is difficult to make pregnancy proceed to the full term in them.

Later on, during the later months of pregnancy, flooding of this kind is called accidental hæmorrhage. It is due to partial separation of the afterbirth from the womb, and often causes premature labour. It is

caused by accidents, as falls, blows, fright, &c., and by disease of the after-birth.

Another form of flooding is what is called "unavoidable hæmorrhage." No accident produces this. Its occurrence is a matter of necessity after the fifth or sixth month of pregnancy. It occurs oftener in women who have had several children than in those who are pregnant for the first time. It is due to the fact that the afterbirth is misplaced (so to speak), for it is situated over the neck of the womb instead of being attached to the upper part of the body of the organ.

All cases of hæmorrhage during pregnancy are of a very serious character, and they tax to the highest the skill of the most expert. Medicines and plugging are of but little use. Absolute rest in bed is essential; cold may be used, and in some cases anodyne may be given, but only in cases where the patient can be frequently seen by the doctor—and every case of flooding should be frequently seen. Should the hæmorrhage continue, labour should be brought on, and the womb quickly emptied.

It is evident that pregnancy is a state which is attended with no little anxiety; and that the woman who is pregnant should be the object of earnest solicitude and kind attention.

The numerous sympathies manifested at this time



between other organs and the uterus—as the breasts, stomach, kidneys, nerves—all of which, when moderate in degree, are normal, yet even then they are a source of trouble and discomfort. But when they attain a morbid degree, what terrible inflictions they become! Towards the end of pregnancy still greater claims has woman upon our tenderness, for then she is often a burden to herself. It should never be forgotten that pregnancy gives rise to alterations in disposition, and increases the general susceptibility; that it sometimes makes the most amiable irritable, the self-denying indulgent, and the cheerful despondent. “The respectful deference which is commonly shown to women in civilised countries at all times, is now therefore more especially demanded; while a little forbearance and feeble persuasion will do much more than rudeness or harshness in making the future mother conceal any infirmity of temper, as well as in enabling her to preserve a calm and cheerful deportment.”

## CHAPTER XIII.

## MISCARRIAGE OR ABORTION.

## Causes of—Symptoms of.

By abortion is meant expulsion of the embryo from the womb before the seventh month of pregnancy; when it takes place between this period and the ninth month it is called premature labour. Both are of very frequent occurrence. When expelled before the end of the seventh, the embryo, or child, is already dead, or dies soon after birth; when after, it may live and be reared. Abortion is said to take place more frequently in first pregnancies than in later ones, for what reason it is difficult to find out. On the other hand, there is some evidence to show that they occur more frequently in later pregnancies, and in conceptions occurring about the dodging-time. A pregnancy about this period is an anxious time to the subject of it.

The causes of abortion are very numerous. They may be divided into diseases affecting the mother's health, diseases of the embryo, and accidental causes.

*Diseases of the Mother.*—Acute disease and fevers, as inflammation of the lungs, typhoid or scarlet fever,



or small-pox, not uncommonly give rise to abortion. Though this is the general rule, yet it is by no means without exception, for women pass through severe attacks of the acute fevers, and go to their full time—pregnancy not having been in any way interrupted.

*Constipation*, either from natural inaction of the bowels, or from pressure upon them of the pregnant womb, gives rise during the early months of pregnancy to such violent straining as to induce the womb to expel its contents. The presence of hard masses of fæces in the intestine alone is often enough to irritate the womb, and excite it to contraction, which may end in miscarriage.

*Skin diseases* are occasionally the cause of abortion, especially when they give rise to great and intolerable irritation.

*Inflammation of the uterus* itself, and of the tissues around it, sometimes causes miscarriage. In this case the womb is bound down in the pelvis by firm bands. As pregnancy proceeds, the uterus becomes larger and softer; the tissues around participate more or less in the changes which the womb passes through, and become more yielding and soft; but in some cases they possess too great a resistance to permit the womb to rise and escape into the cavity of the abdomen when it has become too large to be contained in the pelvis. Unless they give way, or yield, abortion will

take place; but on the other hand, should the womb be permitted to escape into the cavity of the abdomen, pregnancy will go on uninterruptedly.

Displacement of the womb is another cause of this trouble. These affections have already been described. The danger of abortion arising from them is about the third or fourth month, when the womb goes up into the abdominal cavity from the pelvis. It is true that they frequently give rise to many troubles before this time, and that they have given long warning of their presence, yet it is now that they put forth all their strength, that the troubles which they cause reach their highest danger. These displacements may have existed previous to conception, or they may have been brought on since.

Retroflexion does not absolutely prevent conception, and the pregnant uterus also may be retroverted during the early months of pregnancy by the straining which often occurs when the bowels are obstinately constipated. When this happens, there is a sudden severe pain in the abdomen; the neck of the bladder becomes pressed upon; and as the womb grows the urinary passage becomes quite obstructed, so that there is complete retention of urine with all its evils. The womb occupying the abnormal position becomes greatly congested, increases in size, presses against the walls of the pelvis, and being unable to escape into the



cavity of the abdomen, contracts upon its contents and expels them.

Falling down of the womb rarely gives rise to abortion, but falling forward is said to cause it very frequently, considering the rarity with which the anteverted womb becomes impregnated.

Fibroid tumours of the uterus, ovarian tumours, or other tumours of the abdomen or of the pelvis; disease of the lungs, liver, heart, and kidneys; convulsions, whether they be hysterical or epileptic in character; a nervous temperament, or full-bloodedness (plethora); lead-poison or blood-poison of any kind may cause miscarriage.

*Diseases of the Embryo* which produce abortion.—The unborn infant is liable to disease just as the newly-born is. At any period of pregnancy it may become the subject of disease, and it may perish in consequence or live to the full time. Diseases are hereditary, just as well as facial and bodily lineaments; and the diseases of the father and mother may be transmitted to the child, and while still in the womb it may show signs of them. During the early months the intestines and liver are apt to suffer; later the brain, the glands, the lungs, the chest, heart, blood-vessels, and abdomen.

During the later months of pregnancy the unborn child may suffer from almost any disease which the newly-born may be subject to. If the mother suffer

from acute fever, cholera, consumption, or scrofula, the child may suffer from the same. Children have been born with measles or scarlet-fever rash upon them.

The after-birth is also subject to disease, which may destroy the child and produce abortion; or it may become partially separated from the womb, which, as a rule, results in flooding, and ultimately in miscarriage.

When the child dies in the womb, it is not, as a rule, expelled at once, but is retained for several days—from six to twenty. During this time there is some uneasiness, and perhaps signs of threatening abortion, and it is important to know whether the child is alive or dead. If the child is dead, the mother does not longer feel its movements; she does not increase in size, but there is a sense of coldness in the belly—a heaviness in the bottom of the abdomen; the breasts do not grow—lose their roundness and firmness, and they become loose and flaccid. If there be a fetid discharge it is almost certain the child is dead. It is exceedingly difficult to make sure of the death of a child in the womb, because the distinctive signs of life, as the sounds of the heart, may be missed, though the child be alive; and when the child is dead all the above symptoms may be absent.

False conceptions, as the flesh and grape mole, have



been described, and we need not do more here than refer to them as causes of abortion.

*Accidents.*—The most common are violent bodily or mental shocks, fright or grief, fatigue, blows, falls, riding, jolting, driving, dancing, violent diarrhoea, may cause abortion. It is surprising what little is enough to cause abortion in some women, and how difficult it is to get the womb to expel its contents in others. Severe injuries, heavy falls, violent attempts even at destroying the fruit, have in many cases completely failed to excite the organ to act. There is hardly an injury compatible with life—danger however great, excitement however powerful—which pregnant women have not suffered without evil effects.

It is said that some women acquire the habit of aborting. By this is meant that if a woman aborts once or twice she is very likely to do so again. In these cases there is something more than habit, and if the womb be carefully examined it will be found that it is in an unhealthy condition. It may be that it has not had time to recover from the first pregnancy and labour before the second conception takes place; the organ may be inflamed or ulcerated; in any case, however, some condition is present which is unfavourable to healthy pregnancy.

*Symptoms.*—The symptoms of abortion during the later months are similar to those of labour; at an

earlier period they depend upon the degree of development which the embryo has attained. If it occurs a week or a fortnight after the first absent period was due they will be little more than those of menstruation--a little more discharge, a few clots, and a little pain. The symptoms vary in severity between these extremes. We stated elsewhere that a periodical discharge of blood occasionally takes place during pregnancy: this should not be mistaken for the commencement of abortion. It is true that abortion frequently begins with flooding, but there is usually also pain in the abdomen. On the other hand, there is no pain in the former case, and the discharge is not profuse. Whenever bleeding occurs during pregnancy--whatever be its cause--the woman should rest in bed.

Women are apt to treat a miscarriage as if it were a matter of little or no importance; they frequently walk about, follow their occupation, and do their work during the whole time. Now it should be known, that though a miscarriage may be associated with little danger when properly attended to, yet when treated without due care and attention it may not only lead to endless troubles, and lay the seeds of many diseases, but may even prove fatal.

Whenever miscarriage is threatened, when bleeding sets in, all the discharges should be carefully kept--no clots or substances should on any account be thrown



away ; they should all be preserved until the visit of the doctor. They should be shown to him, for from them alone he can form an opinion whether "everything has come away" or not.

Unfortunately, women constantly act in the very reverse way : as soon as anything is passed it is carefully thrown away so that it cannot be seen again ; it can safely be said that by so doing they do their best to prevent the doctor doing his best. By the examination of the substances passed, if they were all preserved, the medical man could easily say if there was any more to come away, and in this way decide what measures are needed.

The risk of leaving a portion of the after-birth behind in abortion is even greater than after labour. In the latter case, the danger is slight : it occurs daily, and usually the contractions of the womb are alone enough to expel it. In abortion, however, the contractions of the womb are feeble ; the after-birth has not undergone the preparatory process for separation ; it is firmly attached, and not easy of removal. After everything has come away a time of rest is required for the womb to return to its ordinary condition, just as it is necessary after labour. Absolute rest should be observed until all red discharge has stopped and for some time after. The observation of this counsel alone will save much future suffering ; for there is nothing

more productive of uterine diseases than carelessness during abortion.

At this time the diet should be good, but plain—meat, vegetables, bread, milk, and beef tea. Stimulants are not, as a rule, necessary. If there has been great loss of blood, however, they may be urgently needed. The bowels should be regulated. The breasts give no trouble, for little or no milk will appear in them.



## CHAPTER XIV.

## THE MANAGEMENT OF PREGNANCY.

## Food—Clothing—Baths—Exercise—Sleep.

WHEN a woman has conceived, her chief object and desire is and should be a healthy pregnancy and a safe labour. With this object in view, she should be watchful over everything that can affect or influence her physical, mental, and moral health and development; on this depends not only her own but her offspring's health. The food should, during pregnancy, be plain, and in sufficient quantity. Sometimes, as has been already stated, the appetite is lost or becomes degraded after conception, and there is a desire not simply for innutritious but for positively injurious substances. Now, the fancies of pregnant women should, as far as possible, be gratified; but there is a limit beyond which complaisance should not go: that limit is reached when injurious substances are desired as food. They should be refused, however painful it would be to do so. At the same time, great latitude should be allowed, because food which is indigestible is sometimes digested, in others vomited. The food, then, should be plain, nourishing, and abundant—meat twice a day, bread,

vegetables, milk, and fruit pudding, unless the latter disagree.

Stimulants under ordinary circumstances are unnecessary; at least, no increase of them should be made on account of the conception. If the patient be accustomed to take small quantities of ale, claret, or wine, she may continue to take them to the same amount; but when water has been the usual drink it is best that it continue so. It will have a favourable effect both on the mother and the child's health.

There may arise, however, circumstances which demand the use of stimulants, as acute disease setting in, or a profuse loss of blood, or other exhausting condition. In such cases stimulants should be taken under medical advice.

*Clothing.*—All women wear stays, and it is right that they should do so. During pregnancy they should not be left off, but should be made in such a manner as to fit to the altered figure. Some women, without reason, appear as if ashamed of a condition which they are only proud of, and attempt to conceal the fact of their pregnancy for as long a period as possible. This is effected by tight-lacing, a practice that is most injurious to themselves and the child. It is to be deprecated and condemned, and there is no single reason in its favour. It arises entirely from a feeling of false delicacy, which a person who aspires to become



a mother should not indulge in. On the other hand, stays are of great service when properly made. As pregnancy advances and the womb increases in dimensions, great pressure is brought to bear on the walls of the abdomen; the skin is stretched and cracked; the muscles and all the tissues are put on the strain; there is often severe pain in the lower part of the chest, owing to the dragging upon the ribs in the places where the muscles are inserted. A properly-made belt or stays bring considerable relief to these troubles. Such a stay should be moulded to the body, should not be stiff, should embrace the whole of the abdomen so as to give it equable support, and should have strong elastic at the sides, so that it may yield when necessary.

Flannel should be worn next the skin in summer as well as winter. It is at all times better than linen. The thickness of the material can be regulated to meet the peculiarities of the individual and the changes of the seasons. More or thicker clothing is generally required during pregnancy than at other times, owing to the increased nervous sensibility and susceptibility to disease.

Drawers of flannel should be used; they are better when they open on the side, and with elastic below the knees. In this way perfect protection from cold and draughts is insured.

Garters should be worn as little as possible. There is great tendency during pregnancy to the distension and enlargement of the veins of the legs, owing to the pressure from the enlarged womb impeding the return of the blood from the lower limbs to the heart. Every effort should be made to relieve this, and ward off whatever has a tendency to aggravate this condition. Garters, especially when worn tightly, appear to favour the distension of the veins. It is, of course, not possible to do entirely without the aid of garters; at the same time, there are many hours of the day, or even many days, when their use can be dispensed with altogether by she who is *enceinte*; and by discarding them as much as possible, and by never wearing them tight, it is in some cases possible to save oneself infinite trouble and great pain.

*Baths.*—Many, if not most, ladies nowadays take their daily sponge bath. In many cases it is cold, in others it is tepid. Both are useful, and should not be discontinued during pregnancy.

*Exercise* is necessary to the enjoyment of health at all times. Pregnancy is no exception to this rule; and every day she who is in the family way should take a “constitutional.” Indeed, it is perhaps more necessary during this period than at any other time. Care, however, should be taken not to overdo it. Violent exercise which calls the muscles into forcible



action should be avoided, as riding, rough driving, dancing, &c. Violent efforts, as over-lifting or straining, should be avoided. Long walks, causing great fatigue, should be forbidden. Quiet driving, but, best of all, walking exercise is to be recommended: a short walk morning and evening, and a third at noon, if not too fatiguing. This favours digestion and nutrition; promotes the change of material in the body; favours circulation, which during pregnancy becomes sluggish, and causes enlarged veins, swollen legs, and bleeding piles.

*Sleep.*—The amount of sleep that different people require varies greatly. Some can do with four or five hours a night, while others can hardly do with less than eight or nine, and could even enjoy twelve. During pregnancy early hours should undoubtedly be rigidly observed in the evening; in the morning, however, a longer rest than she is accustomed to will often prove very grateful to the feelings of the future mother, and she should not be denied the indulgence. During the day she should rest several hours, and always with the feet on a level with the buttocks.

Great care should always be taken in guarding against accidents to pregnant women: not only falls, blows, and direct injuries, but also sights or news, &c., which are likely to cause a sudden shock. Repulsive objects should be kept from view. This is not

because they are likely to brand the child with what are called "Mothers' Marks," but because they may produce fits or hysterical convulsions; or a sudden shock may destroy the child, or bring on miscarriage, at any period of pregnancy.



## CHAPTER XV.

## THE MANAGEMENT OF LABOUR.

The Period immediately following After-pains—Secretion of Milk—  
Excessive Secretion of Milk—Deficient Secretion of Milk—  
Deformed Nipples—Sore Nipples—Milk Abscess.

SOME time before labour actually sets in premonitory symptoms or warnings of it have been observed. The first of these is the falling or sinking of the womb, which takes place during the last month of pregnancy. This is almost invariably observed. Women say that the child is lower—that they do not feel so uncomfortable, so full and distended. This is because the pressure of the womb is in part removed from the chest, and there is in consequence more breathing space. Other troubles, however, appear: the bladder becomes more irritable, micturition is more frequent, and the bowel may be irritated so as to give rise to slimy or mucous diarrhoea. Walking also is performed with greater difficulty; there is a general preparation in the pelvis for the birth of the child. All the tissues become softer, and the firm joints which bind its several parts together appear to become looser and more yielding. The first symptom of real labour is pain. This is due to efforts made by the womb to

expel its contents. The pain is seated at first in the abdomen, and is similar to sharp colic. Pains similar to these may come on several days—even a week or more—before labour. They sometimes return every night and cease in the day. They are then due, in the majority of instances, to some deranged condition of the stomach and bowels, as constipation, or the ingestion of indigestible food. Such a condition at all times, and especially during pregnancy, is apt to give rise to pain in the womb. A dose of castor oil or Friedrichshall water will empty the bowel and dispel the pains. When labour really sets in, the pains return at intervals. At first the pains last a very short time; they are little more than sharp twinges, with long intervals between them. The pains gradually become longer and more severe, and the intervals shorter. After a time, the pains, instead of having a colicky or twinging, assume a bearing-down character. They go to the back, and then the woman has more suffering in the loins than anywhere else. She calls the nurse to press or support the back, and this gives great relief.

As labour advances, a discharge makes its appearance from the vagina. At first it is a pale or colourless viscid mucus. The quantity of this secretion varies: in some cases it is very profuse, while in others it is scanty. A large quantity of it is generally regarded



as a sign that the labour will not be a long one. After a time, when the labour has made some progress, what is called the "show" presents itself. This is a slight discharge of blood, and indicates the advance made by the child's head. It is a sure sign that labour is progressing. About the same time the patient may feel chilly, or have a slight shiver or rigor. This is of frequent, indeed, of usual occurrence, and should be expected in the natural course of events. Another occurrence of great importance which takes place about this time is the rupture of the membranes and the escape of the waters. The amount of water which escapes varies much in different cases. The quantity may be immense, or it may be trifling. The latter condition may be due to one of two things—retention of a part of the fluid in the womb, or an originally small amount of water. With the escape of the waters the pains alter in character. Before this event the pains were of a teasing, colicky character; afterwards they become stronger, of longer duration, and of a bearing-down character. The severity of the pain varies much. Some persons suffer but little, while others suffer severely. The pains gradually increase in severity until the head is born; then there is a short interval of relief, after which the body is expelled. When the child is completely born, the nurse (if a doctor is not present) should keep her hands

on the lower part of the abdomen, just above the pubes, or below the navel. Then she ought to feel a hard, round, smooth mass, like a cricket-ball or a child's head: upon this she should lay her hand flat, and hold it firmly down. It is the contracted womb which should be maintained in a state of contraction, and not allowed to become relaxed. There is no great hurry about the child, so long as its mouth is kept out of the discharge with which it is surrounded, and it is able to breathe. When the mother has been duly attended to, the child should be separated; this is called by some midwives, "taking the child." The navel-string or cord should be tied in two places by means of tape or of strong thread. The first ligature should be placed about an inch and a half or two inches from the child, and the second an inch or an inch and a half beyond the first. The navel-cord should be then divided with a pair of scissors between the two ligatures. Care should be taken that the cord is the part really divided. The object of the ligatures is to prevent bleeding. The really important one is that next the child, for if it be not properly and firmly tied the infant may bleed to death. The second is of no great importance, though it is usual to put it on.

The child having been separated, the next object is the removal of the after-birth. This is usually



expelled in the course of half an hour after the birth of the child by the efforts of the uterus alone; and no attempt should be made to remove it except by one thoroughly acquainted with the method of doing it. Nurses and midwives are often greatly afraid that the cord may be drawn up into the womb, and in order to prevent such an untoward occurrence they tie it by means of the ligature-string to the patient's thigh or leg. This is a harmless practice enough; at the same time, we must say it is absolutely useless, for it is not possible for a navel-string of moderate length to be entirely drawn up into the womb; and even were such an accident to occur it would result in no harm whatever. Were this the only interference of which ignorant attendants are guilty it would be indeed well; but, unfortunately, attempts are frequently made to remove the after-birth by dragging on the navel-cord. Such attempts are exceedingly mischievous, and may lead to the gravest injury. Every now and then the cord gives way, and the after-birth is left in the womb. When this has happened, a doctor is sent for, and the removal of the organ is by no means to be easily accomplished. In other cases the cord does not yield, but the uterus is turned inside out by the dragging upon it. This inversion of the uterus is a most serious accident, and imperils life; indeed, it has proved in some cases immediately fatal. But pulling at the cord leads to

other less serious but very troublesome consequences. It irritates the womb, excites it to irregular contractions which do not expel the after-birth, and renders it difficult for it to be removed artificially.

When waiting for the expulsion of the after-birth, it should be remembered that the navel-string should not be pulled upon; that the hand should be kept on the abdomen just above the pubes, in contact with the womb; that whenever the round tumour, like a cricket-ball, loses its hardness and firmness, and becomes soft and flabby, there is danger of bleeding; and that, in such circumstances, gentle rubbing and pressure, or kneading, should be practised over the part until the womb becomes hard again.

No medicine should be given during labour, unless ordered by a doctor, nor until after the expulsion of the after-birth: After birth is completed—that is, when both the child and after-birth are born—a draught, containing a tea-spoonful of the liquid extract of ergot of rye in a little brandy and water, may be given if there be any signs of flooding. In no case should ergot be administered before the birth of the child.

The management of the lying-in room is of no little importance. When the event is expected, everything should be in readiness: the doctor should be engaged and known, and the nurse should be in the house a



day or two before, if possible. The baby's clothes, napkins, binder, mackintosh, draw-sheets, and all the little things that will be necessary to make both the mother and child comfortable, should be procured ready before the expected time. It is well to have all this done some time before the calculated time of labour, because now and then the baby arrives a fortnight or three weeks before it is expected. The lying-in room should be quiet; there should be no more than one friend, and that one a mother, if possible. The husband is better out of the room. In the room these three should be together with the patient: the doctor, the nurse, and one friend. The choice of a nurse is as important as the choice of a doctor. It is sometimes well to engage a nurse at the recommendation of the doctor in attendance; she should be intelligent, sober, wakeful, and should thoroughly understand her business; she should not be meddlesome. Of all nuisances in a lying-in room, perhaps an interfering nurse is the worst of all—both to the patient, her friend, and the doctor. She should observe the directions of the doctor accurately; observe the patient carefully, and report accordingly to the medical man in charge.

After confinement the patient is worn, tired, and exhausted. "A temporary calm follows the energetic action which issued in the delivery of the mother.

After the excessive action, in which nerve and muscle seemed strained to the utmost pitch, there comes a sudden and profound repose; there is perfect freedom from pain; every fibre is relaxed; only the uterus now contracts of all the muscles which were so lately struggling. Like some ship which turns from a tempestuous sea into a safe and quiet harbour, the young mother passes from the storm of childbirth into the tranquil haven of maternity. In the pathetic words of Scripture—‘A woman, when she is in travail, hath sorrow, because her hour is come; but as soon as she is delivered of the child, she remembereth no more the anguish, for joy that a man is born into the world.’”

Absolute rest is now necessary. For the first few days the new mother should see few or no friends. The room should be darkened and kept perfectly quiet, so as to favour the induction of sleep.

During the month that follows labour great and important changes take place in the lying-in patient, and everything should be done in order to favour the regular and normal performance of these changes; for upon this the future health of the woman may in a great degree depend. Moreover, slight causes may interfere with them, and may give rise to the beginnings of disease which may easily be prevented, but which is with the greatest difficulty cured when once it has lodged itself in the womb.



The chief changes which occur during this period are the involution, or the reduction of the womb from the enlarged condition in which it is immediately after labour to the normal size of the organ in its unimpregnated state ; and the secretion of milk in the breasts.

In order that these processes may go on in a proper manner, there are many conditions which should be observed, which we shall mention as we proceed. And, first of all, we will speak of the food of the lying-in woman.

It was once believed, and is still too generally held, that the lying-in woman should be kept low for the first few days after labour. It was thought that she was in a condition peculiarly liable to inflammation, and that good nourishing food was likely to excite that formidable disease. This, however, cannot be maintained ; insufficient food is far more likely to retard recovery, and to interfere with the normal processes going on in the body. Instead of limiting the diet to tea, arrowroot, and water-gruel, a nutritious but easily digestible and unstimulating diet should be taken : as beef tea, chicken soup, &c. ; not discarding entirely, however, the old *régime*. Except in special cases, stimulants—wine, spirits, and beer—are unnecessary.

The binder should, for the first three days, be care-

fully adjusted. It is liable to slip up under the armpits or round the lower part of the chest, where it is of no use; when this happens, it should be taken off and replaced in the manner already described.

After labour the bowels are generally confined: this is especially the case when they had acted freely just before or during labour. In such cases it is not necessary to be anxious about them for the first two days; on the third day, however, if they still remain torpid, it is advisable to give a dose of castor oil or other mild laxative. When they have been freely acted upon, the patient may return to her ordinary diet. About this time the milk begins to form in the breasts, and the mother has to take food for herself and also for her infant. There is, consequently, an increasing demand for nourishment, and the food should be plain and good, but abundant: animal food twice a day, with vegetables and bread, and the usual amount of beer or wine.

For some days after childbirth there is a discharge of blood from the womb. At first this contains coagula or clots of blood. These disappear after the first day or two, but the sanguineous discharge lasts for seven or eight days. It is at first almost pure blood, but after the first three or four days it begins to lose its colour, becomes paler and paler until about the eighth or tenth day, when it assumes a greenish colour (then it is called the green waters), and disappears from the



twelfth to the fifteenth. This discharge is passed in greater quantities during micturition, or at stool, or during after-pains. It is necessary that the discharge should be free, but not profuse. A discharge of blood sometimes continues during the whole month; then something wrong should be suspected, and should be at once attended to. While the discharge continues, napkins should be worn and changed frequently; and at each change the parts should be carefully sponged with warm water containing one teaspoonful of tincture of iodine to the pint, or a  $2\frac{1}{2}$  per cent. solution of carbolic acid, or a 1 in 3000 solution of corrosive sublimate. This is imperatively demanded, for the secretions are liable to undergo rapid decomposition. Should the discharge become offensive in the passages, it may be necessary to wash them out twice or thrice a day, by means of injections of warm water containing tincture of iodine in the proportion mentioned.

*After-pains.*—After the womb has expelled its contents, it remains in a more or less contracted condition. This contraction, however, varies in degree at different times. Sometimes the organ contracts more vigorously and then relaxes again. These contractions are accompanied by pain—called after-pains. Their occurrence is a natural phenomenon, and up to a certain point they have a beneficial influence, and favour the changes which take place in the womb. They are absent, or more

generally slight, in first cases, and increase in severity with each successive labour, so that in a woman who has had many children they may cause much suffering. They begin soon after labour, and continue in some cases for three or four days, and may require special treatment. A warm poultice or a hot flannel over the lower part of the abdomen will frequently give relief.

They are aggravated by putting the child to the breast, by taking food, by the action of the bowels or of the bladder, or by distension of the last-named organ.

Rest is of the greatest importance in the early part of the lying-in month. The patient should remain in bed for ten or twelve days, and in some cases even longer. Then she may sit up, and rest on the couch or on the outside of the bed, but it is advisable for her not to leave her room until the third week; and she should rest for a great part of each day until the end of the month. This should be the rule; there are exceptions when still longer rest would be beneficial. Too early getting up is productive of numerous troubles; it may give rise to a profuse bleeding, or keep up a sanguineous discharge for weeks, or even months; in many cases it is the cause of sub-involution of the uterus, with all its troublesome consequences—to falling of the womb, to relaxation of the soft parts around the uterus and of the floor of the pelvis, and to other forms of displacement.



*Secretion of Milk.*—We have already stated that changes in the breasts form part of the signs of pregnancy. These changes become more marked as pregnancy advances, and attain their maximum a few days after the child is born, when the milk has become freely secreted. During the last month of pregnancy milk is found in the breasts in small quantity, and can even be pressed out from the nipple, but the proper secretion of milk takes place in most women about the third day after labour. At this time the breasts become rapidly harder, fuller, and painful: there appears to be a rush of fluid into them; the patient feels ill, feverish, has a headache and a quick pulse. In some cases there is a slight shiver, or rigor, hot skin, a free perspiration, and there is free secretion of milk in the breasts. This is called "milk fever."

It is a question of some importance when the child should be put to the breast. Should it be put early, during the first two or three days, before the milk is fully secreted? or is it better to wait until the breasts are acting freely? There are several advantages in applying the child early. Irritation of these organs causes the womb to contract, causing it to expel clots that may be lodged in its cavity, and favours involution. It undoubtedly also favours the flow of milk into the breasts, so that in cases where milk is scanty this is one method of increasing it. It also draws out

the nipple when this is flat or small ; “ and what is now likely to occur, should this have been omitted, is a projection of the areola which participates in the tumefaction of the rest of the gland, so that the nipple falls in, as it were, on a level with the skin, when it becomes a matter of some difficulty for the child to seize it.”

After a first labour, when the milk is secreted, the child may find some difficulty in drawing it out along its fine channels ; and the pain arising from it to the mother may be severe. In such a case it is advisable for the nurse, or some fit person, to draw the breasts herself or by means of a breast-pump. Once the milk flows freely out of the nipple, this pain is relieved. Besides, as the child requires but little at first, the breasts are frequently but imperfectly emptied by its efforts, then gentle rubbing of the harder parts of the gland with olive oil will cause the milk to flow out, or the breast-pump may be used for the same purpose. During this period the heat in the breasts is great, and in parts they become hard and cord-like ; in such cases it may be necessary to keep evaporating lotions constantly applied to them. The best is an ounce of spirits of wine to eight ounces of water. When the organs become troublesome, on account of their size and weight, they should be suspended by means of silk handkerchiefs tied over the neck.



Under these circumstances, the child must not be too frequently applied to the breasts. It is better to relieve the distended organs by completely emptying them by means of the pump, for the irritation caused by the imperfect efforts of the infant increases the troubles.

The milk first formed in the breasts is thicker than that formed when the flow is well established; it has irritating properties, and serves as a purgative to the child, acting freely on its bowels. It loses this character in the course of two or three days, and acquires the properties of the mother's natural milk.

The quantity of milk formed in the breasts of different women varies greatly. In some it is so abundant as to flow out spontaneously from time to time, while in others the breasts are absolutely dry. In the first case, the woman is said to be a good nurse; in the latter, a bad, or rather, no nurse. Besides the difference in the quantity of milk secreted, there is also considerable variation in quality met with; and, in reality, the value of any one as a nurse depends, not on the quantity of milk secreted in the breasts only, but also upon its quality.

*Excessive Formation of Milk.*—This gives rise, occasionally, to serious troubles. The milk may be of good quality or of a watery character. When the milk is good, the child does not suffer—it thrives; but the

inconvenience to the mother is not inconsiderable. The secretion is so rapid that soon after the breasts have been emptied they fill again, and suddenly pour out their secretion, keeping the mother's breasts in a perpetual state of moisture.

The breasts are so irritable that the least touch gives rise to an overflow of milk; and when the child is applied to them they pour their contents out more rapidly than the child can swallow, filling its mouth, and giving rise to a choking feeling. When this is allowed to go on for a long time, the drain affects the mother's health, and may ultimately undermine her constitution.

In such a case the chief object should be the regulation of the diet. The food should be good and plentiful; but it should be chiefly solid. The amount of fluid taken should be very limited.

*Deficient Secretion of Milk.*—The secretion in the breast may be scanty or absent. The quantity varies between the extreme abundance described in the previous paragraph and none. Absence or deficiency of milk may occur in women who are perfectly healthy. It is not often seen under those circumstances, but usually in women who suffer from acute disease. It is one of the first symptoms of those diseases to which the lying-in patient is subject. The breasts in these cases become distended and full about the third



day, and milk is abundantly secreted; and about the fourth or fifth day, when the disease sets in, it becomes greatly diminished or entirely suppressed. The discharge from the womb is also arrested. These two symptoms appearing together are of very serious import. On the other hand, when there is deficiency or absence of milk in good health, the cause rests in the particular constitution of the patient, and secretion fails from the first: and in these cases the only evil that follows is the inability of the mother to nurse her child.

*Deformed Nipples.*—The nipples are sometimes small or flat, so that the child cannot suck. This may be due to original conformation or to the pressure of badly-made stays. This is frequently a source of great trouble and annoyance. The mother has plenty of milk and is anxious to nurse her child, but experiences the greatest difficulty in doing so, owing to the imperfect shape and size of the nipple. The child cannot take it into its mouth and retain it there with ease, and, consequently, bites and bruises it. To remedy this, efforts should be made to draw out the nipple. These should be tried after labour and before the milk has come into the breasts, and continued afterwards. The child may be applied; and should this prove ineffectual, the services of a sister or nurse should be obtained. If this cannot be obtained, then

an attempt should be made to draw it by a pump. The following simple method answers well in some cases :—Take a soda-water bottle, or a bottle of similar shape and size ; fill it with hot water ; pour the water out, and apply the neck of the bottle over the nipple ; as the bottle cools, the partial exhaustion formed by the condensation of steam will cause the nipple to protrude and be gradually drawn up into the neck of the bottle. When this is effected, the bottle should be retained in that position for a few minutes, and then tilted a little on one side, while the breast is pressed on the opposite side so as to allow air to enter the bottle, and the nipple be withdrawn without injury.

India-rubber teats, or artificial nipples, are of great service in these cases ; and they will enable any mother who has plenty of milk, and is anxious to nurse her infant, to do so, whatever be the shape of the nipple. They can be obtained at the druggist's. They should be made of the natural black india-rubber, for it is practically devoid of taste ; while the white india-rubber, or caoutchouc, has a sickly and unpleasant taste and smell.

*Sore Nipples* are very common, and very troublesome and painful. It is often not easy to cure them, on account of the frequent application of the child to them in nursing. When cracks or fissures,



and excoriations are present, every application of the infant aggravates the suffering.

They are easier of prevention than of cure. During the later months of pregnancy they should be frequently bathed with salt and water, or a weak spirit lotion, or an infusion of tea. After labour, and during the period of nursing, the same treatment should be continued. If this proves ineffectual, a lotion of goulard water, or, better still, glycerine tannin, should be applied after each application of the child. Extreme cleanliness is necessary under these circumstances, for the sake of both mother and child. The nipple should be bathed with warm water after each act of suckling; then carefully dried, and the application applied afterwards. This should be allowed to remain until the next act of suckling, when the nipple should again be bathed with warm water, so as to remove all trace of the lotion before the child is put to the breast again. In some cases the nipple is so painful, and the irritation caused by suckling so great, that it becomes necessary to remove the child permanently and bring it up by hand, or obtain the services of a wet nurse.

*Milk Abscess.*—This may occur in any case in which there is a fair quantity of milk secreted. It is said to occur more frequently in the weakly and delicate than in the strong and robust. The breast at first is full; a part of it remains hard and tender after the

gland has been emptied. There is sharp, darting pain in it. There may be a sharp shiver, or rigor, but this may be absent. The pain in the breast increases, and it becomes very tender to the touch. The hardness and fulness continue, and the part becomes red. Inflammation proceeding, the swelling increases; there is a distinct tumour; the pain and tenderness are severe; the skin is hot, red, glazed, or shining. Instead of the sharp darting pain, there is a painful throbbing in the breast. The glands in the armpit become swollen and the arm stiff at the shoulder. There is pain when the arm is moved. Shivering may occur again. When this happens, and the pain has assumed a throbbing character, with the surface glazed, matter has formed—the inflammation has run on to abscess. As soon as it is certain that matter is present, it should be at once let out. This will save an immense amount of suffering, and in many cases effect a rapid recovery. On the other hand, if it is allowed to burst of itself, the suffering of the patient will continue for a long time, and until the discharge escapes is of a very severe character. The matter is often formed deeply in or under the gland, and in these cases it takes a long time to reach the surface and escape, and during the whole of this time the throbbing pain is severe.

Moreover, when it has escaped after this long



delay, the process of recovery is much less rapid than when it is let out early. Sometimes several abscesses form in succession, and the breast becomes a mass of almost stony hardness. When abscess has occurred once, it is liable to occur again, though by judicious treatment it may in many cases be warded off.

*Treatment.*—The breasts should be periodically emptied. Frequently some parts of the glands remain hard and full, while the rest is soft and flaccid. When this happens, gentle friction with warm olive oil should be made over the full part. When inflammation has set in, cold lotions should be tried; when these fail, hot fomentations and poultices should be applied until matter is formed, which should be immediately allowed to escape. Poulticing for a few days, and the application of pressure, with liberal diet, will, in most cases, effect a rapid cure.

## CHAPTER XVI.

## MANAGEMENT OF THE NEW-BORN INFANT.

Clothing—Food—Wet-nurse—Feeding-bottles—Sleep, Cleanliness, and Bathing—Light, Air, and Exercise—Diseases of Infancy.

WE consigned the new-born child to a warm flannel to be placed in a comfortable place, either on the bed or near the fire, according to the time of year, temperature of the room, &c. We must now return to it in order to prepare it for its future, whatever that may be. The first duty to it is a thorough washing with soap and water. The child is usually covered by a whitish curdy or soapy material, all of which has to be removed in the first bath. Having washed and carefully dried it with a soft towel, the folds formed by the skin at the flexures of the joints, around the neck, under the armpits, inside the thighs and groins, should be powdered with a mixture of starch and oxide of zinc, in order to prevent irritation of the skin from rubbing of the parts against each other.

The next object that deserves attention is the navel-string. About two inches of this is left attached to the body of the child, and in the course of a few days, this, which undergoes a process of putrefaction, drops off at the navel. It is usually wrapped in a piece of



cotton or linen which has been charred before the fire. A square piece of linen, about six or eight inches long, and four to six wide, is taken, and generally charred; then a hole is burnt through its centre; the navel-cord is put through this hole and wrapped in the folded linen. This charred linen serves to preserve the decomposing part sweet and free from offensive odour, the charred surface being antiseptic in its action. The cord withers and falls off about the fourth or fifth day.

*Clothing.*—A certain temperature of the body is necessary to existence. Too great an elevation, as well as too great a depression of temperature, are incompatible with life. For the purpose of retaining heat generated in the body and withstanding the effects of cold, clothes are worn. The child before birth was maintained at an uniform temperature equal to that of the mother, through its peculiar connection with her; and when it is born and becomes exposed to external influences it is necessary to protect it from such as are productive of evil results. One of these is cold, and it is natural to expect that its effects on a newborn child might prove serious. This is indeed the case, and it becomes necessary not only to clothe the infant warmly, but often to expose it to artificial heat, either in bed with the mother or near the fire. The baby clothes are generally of flannel, and

are made of such length that they reach beyond the feet and can be folded up over them. In this manner all draughts are prevented from affecting the lower limbs and body of the infant.

*Food.*—The milk, which is the new-born child's natural food, is not formed in the breast usually until the third day. During this time the infant requires but little nourishment: a little sugar and water, or a little milk with a good deal of water and a little sugar, will be quite sufficient. The child should be put to the breast early for reasons already given, and the infant's first food comes to be the milk formed in the breast. This is called colostrum, and possesses irritating properties, and acts as a laxative on the child's bowels. The bowels generally act spontaneously during the first and second day, and the motions passed have a peculiar dark green colour. The action of the first milk carries all this substance away, and the matter passed assumes the natural yellow colour. Should the bowels remain without acting until the milk has formed in the breast, there is no need for anxiety or alarm; nor should laxatives, in the form of castor oil or brown sugar, be given. They may do harm by irritating the stomach and bowels, and set up an obstinate diarrhœa. It is better to wait until the laxative prepared by nature can be administered. If the mother be strong and has sufficient milk, the child



should for the first seven months be fed with nothing else.

Circumstances may arise which render it impossible for the mother to nurse her infant. When this happens, one of two courses may be followed—a wet nurse may be obtained, or the child may be “brought up by hand.” Of these there can be no question which is the better. The food best suited for the infant is breast milk, and when possible it should be obtained. No wet nurse should be employed unless she has been seen and recommended by a doctor. The selection of one is a question of very great importance, for upon it will depend the health of the child. She should be between the ages of nineteen and twenty-eight; healthy, and from the country if possible; free from skin rashes or any disease which could be transmitted to the child. The breast should be well developed, secrete sufficient milk, and the nipple ought to be well formed and free from fissures or excoriations. Her child should be as nearly as possible of the age of the child which she is to nurse. If her child is strong, healthy, and well nourished, or if she has nursed previously in a satisfactory manner, it speaks greatly in her favour. Her diet should be carefully regulated. The belief that a woman cannot nurse unless she takes a certain quantity of stout or ale daily is much too prevalent, and mothers anxious for the welfare of their children not

uncommonly over-stimulate their nurses, and thus bring about evils they wish to avoid. As a rule, two glasses of ale or stout a day, are ample, and unless the nurse has been accustomed to take malt liquor she should be allowed none. The diet should be plain and easily digestible: meat, bread, and vegetables, in the quantities she has been used to. Over-feeding and over-stimulation is sure to upset the stomach and alter the character of the milk, so that it irritates the infantile stomach, sets up diarrhœa and vomiting, which are frequently difficult of control. It may even upset the secretion of milk, and in some cases suppress it altogether.

The second method—rearing the child by hand—should be avoided, if possible; but circumstances may arise in which it becomes inevitable. In these circumstances the object should be to obtain a substitute for mothers' milk, which, at the same time, resembles it as nearly as possible in character. The milk of different animals varies much in composition, some containing an excess of water, others an excess of fat, or of casein or cheese-making material. The milk of the ass or of the goat resemble most that of the human mother, and form, perhaps, the best substitute for it, and when possible one of them should be obtained. This is, however, frequently not possible, and then it is necessary to fall back on cows' milk. Cows' milk is



much richer in solid matters, but poorer in sugar and fatty matter than mothers' milk. It is, indeed, too rich for the young infant, and when given in its natural state is sure to upset the stomach, give rise to indigestion, acidity, vomiting, and diarrhoea. With a view to render cows' milk more like that of the mother, it is necessary to add water to dilute it, sugar to sweeten, and cream to supply the fatty material. One table-spoonful of good milk, two of water, one tea-spoonful of cream, and a little white sugar, form the best mixture. It should, however, be stated that when the milk is of a poor quality the quantity of water added should be less. No solid food should be given for the first six or seven months, and milk should in no case be thickened by means of corn-flour or meal of any kind, arrowroot, &c. Such substances the infant's stomach is unable to digest, and evil consequences will surely follow their administration.

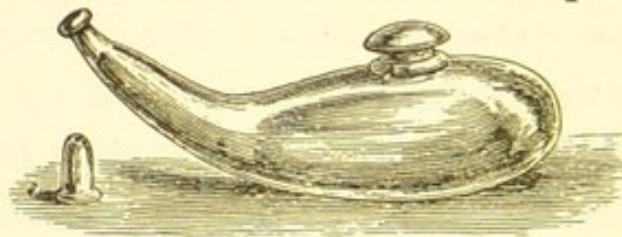
Mothers and nurses are often anxious to obtain milk from one cow. This, in the majority of instances, in large towns, is impossible, and, moreover, it is not desirable. It is better to obtain milk from cows feeding in the country than from those kept in stalls in town. The milk of any one company in large towns is usually obtained from several farms situated in the same district. The milk of several cows is mixed together, and there is no evidence that this mixture proves in

any way noxious to the infant. But we would repeat that the milk should be obtained from cows fed in the country. When a child grows and thrives, and becomes strong and fat, it is often thought that it requires not only more food, but requires solid food, or the addition of flour or arrowroot, or one of the many "infants' foods" invented. This is the greatest error. The strongest proof that the child takes sufficient food is the fact that it thrives—the very fact on which the erroneous belief is based. In such a case, we would strongly urge, "let well alone." As to the inventions called "infants' food," many of them exceedingly injurious from a chemical point of view, and advocated by the pettiest theories—we can only say, avoid them. They should never be administered, except when advised by a medical man. From the first, a child should be taught to feed at regular intervals. A healthy infant should sleep when it is not being fed or bathed. At first, it should be fed every two hours during the day. It should be taught to sleep the greater part of the night. If it is fed the last thing at night, about eleven o'clock, it requires nothing afterwards until four or five in the morning. At that time it may have a little milk and water, and brought to the mother about seven or eight o'clock.

The same rule should be observed when it is brought up by hand.



*Feeding Bottles.*—These are of the greatest service when properly used. They are made so as to allow the child to suck its food gradually, and thus to prevent its mouth being too rapidly filled, and to imitate as far as possible the natural method of feeding. They are made of various shapes. Some have long india-rubber tubes attached to them, through which the food is sucked. These are the worst form, for it is almost impossible to keep them sweet and clean. The best form is that represented in the accompanying illus-



FEEDING BOTTLE.

tration. It can be obtained of any druggist. It has a teat of india-rubber; it ought to be made of natural black india-rubber, for the caoutchouc has an offensive taste and smell. This form is easily cleansed and preserved sweet. For this purpose it should be kept, when not in use, in cold water. In summer, when milk is more liable to turn sour, a very small pinch of carbonate of soda may be added to the water; but it should be thoroughly washed off before use. This bottle has the further advantage, that the child cannot go to sleep with the teat in its mouth. Both mothers and nurses are too fond of giving the child

the bottle to send it to sleep : it is a practice fraught with the greatest evil. The milk is retained in the child's mouth, turns sour, and sets up dyspepsia, diarrhœa, and vomiting. Whenever the child has taken food its mouth should be wiped with a soft piece of linen moistened with water, so as to cleanse the gums and sides of the cheeks from the adhering milk.

We have stated that the infant should be fed at regular intervals. Nothing should be allowed to interfere with this rule. The cry of a child is generally regarded as a sign that it requires nourishment, or at least that then it should be offered some, but it is frequently not the case. Many things cause the child to cry besides the want of food, as an uneasy position, cold, noise, and, not least, over-feeding. More children cry from the pain and evil produced by over-feeding than from under-feeding, and when this is borne in mind it will be seen that the breast or the bottle is not the proper remedy for the trouble.

*Sleep.*—We have said that a child should sleep during the intervals between feeding-times. As a rule, the more a child sleeps the better he thrives. Infants should not sleep with the mother or nurse, but in a cot. When it is absolutely necessary that an infant should sleep with its mother, it should never be allowed to do so with the nipple in its mouth: it is quite as bad as to have the teat of a bottle in it.



When a child is sleepless or restless, no sleeping-draughts or soothing-syrups should on any account be given. Indeed, no medicine of any kind, except a teaspoonful of castor oil, perhaps, should be given to an infant without the advice of a doctor. Patent medicines going by the name of soothing-syrup, or any other containing opium, are most dangerous in their effects, owing to the remarkably powerful influence exercised on the infant's constitution by soothing-syrups. Numerous deaths have resulted from their administration, besides incalculable injury to the health of many who have survived their poisonous effects.

If the rules just given with regard to feeding and sleep, and those about to be given about cleanliness, be accurately observed, children born healthy will thrive, and give but little trouble; on the other hand, if neglected, diseases are sure to follow—diseases which in many cases ultimately prove fatal.

*Cleanliness.*—Bathing is useful not only for cleanliness, but inducing sleep, allaying irritation, &c. A child should be bathed night and morning in warm water.

Dr. Combe says:—

“On account of the great susceptibility of cold which exists in infancy, and the difficulty with which the system resists the influence of any sudden change, the temperature of the water ought, at first, to be

nearly the same as that of the body, namely, about 96° or 98° Fahrenheit, and always to be regulated by a thermometer as the only test. If the nurse judge by the hand alone, she will often commit an error of several degrees, according to the varying state of her own health and sensations. The younger the infant, the more rigidly should this standard be adhered to; as it is not till after growth and strength have made some progress that it becomes safe to reduce the standard by a few degrees.

“In addition to the regular morning ablution, the tepid bath should be repeated every evening for a few minutes. Properly managed, and not too warm, it has the double advantage of soothing the nervous system, which is always irritable in infancy, and of sustaining an agreeable circulation of the blood towards the surface, and thus warding off internal disease. It ought not, however, to be too long continued, or used in a cold room, or immediately after nursing or feeding. With these precautions, the most unequivocal advantages often result from its use, especially in scrofulous and delicate children. For restless and irritable children, also, the bath is often of immense advantage, from the quiet and refreshing sleep which it rarely fails to induce. As a sedative, too, it is of great value in subduing nervous excitement. But when used too warm, or continued too long, the bath is apt to excite



undue perspiration, and to increase the liability to cold.

“We occasionally, though rarely, meet with children who, from mismanagement or some other cause, are frightened by immersion in warm water, and with whom the bath decidedly disagrees. In such instances, of course, it should be given up, and simple washing and sponging with tepid water be substituted. But in all circumstances, the greatest care must be taken never to allow an infant to be exposed to the air with a skin even partially wet; for imprudent exposure may be productive of some serious inflammatory affection. Many of the complaints made against the use of the bath arise entirely from improper management and the neglect of proper precautions.

“Some physicians and parents prefer the cold to the tepid bath, even from birth; but reason and experience concur in condemning it, and it is only when the infant is strongly constituted that it escapes from the use of the cold bath unhurt. After the lapse of a few months, however, the temperature of the water used for the morning ablution should be gradually reduced, provided the child continue healthy and the season of the year be warm. But to make any sudden change in winter, or when considerable delicacy exists, would be attended with risk. I need scarcely add that when sufficient reaction and warmth do not

speedily ensue after the use of cold bathing, it ought to be immediately given up, and the tepid bath substituted in its stead."

Cleanliness should be, moreover, observed in the frequent change of napkins. A child should not be allowed to lie any time in its own urine or motion. As soon as these are expelled they should be removed, the child thoroughly cleaned and dried, and then greased with olive oil or lard. This is a very good plan: better than powder; for it not only prevents excoriation, but also, to a certain degree, the direct contact of the excreta with the skin. It protects the skin from their irritating effects. When this has been done, a new and clean napkin should be applied. The napkins which have been wet with urine are sometimes merely dried before the fire, and used again without being washed. This is a practice to be utterly condemned. The napkin thus prepared is not clean; it is loaded with substances which irritate the skin, and give rise to sore bottom. Napkins once used should be thoroughly washed and dried before they are again applied to the child's body.

*Light, Air, and Exercise.*—During the first months of infancy, all the exercise which the child can take is of a passive character. It should be carried about in the open air. Children are frequently tossed or even thrown into the air, and caught again as they descend.



This is a form of exercise which gives the child great pleasure, as is evidenced by the signs of joy manifested by it; at the same time, it is not quite free from danger, for the child may slip out of the hands, or be missed in its descent. In such an event it would be liable to severe injury.

Light and air are necessary to the health of children as well as to that of animals and plants; and it should be a rule to take infants out once or twice daily when the weather is fine, even from a very early age. After the first month, both summer and winter this should be done. At first the child cannot bear the light, and keeps his eyes always closed. His head and face should therefore be well protected by a covering. When he begins to look about him, a veil should be substituted for the head and face cover.

*Diseases of Infancy.*—The diseases which affect children during the first month are few. They chiefly regard the digestive organs, the stomach, and intestines. Diarrhoea is one of the commonest. It is due almost invariably to excess of or improper food. Children brought up on mothers' milk suffer little or not at all from this affection, while those brought up by hand invariably suffer at some period or other. The food given them is stronger than the stomach can digest. It is not assimilated; it remains in the intestinal canal as a residue, and sets up irritation of the

bowels. In these cases the child is always crying, draws up its legs as if in pain, suffers from colic, flatulence, passes wind, vomits its food—if it takes milk it returns curdled; it refuses food, wastes, may become convulsed, and die. The motions may be passed ten, twelve, or twenty times in the twenty-four hours; they are of a greenish colour, and smell very offensively. The child's bottom becomes red, sore, and inflamed. Thrush may set in and the diarrhœa become still worse.

The treatment of such diarrhœa should be the removal of the irritating matter from the bowels, and the administration of proper food. The first object is gained by a small dose (twenty or thirty drops) of castor oil. This the mother may venture to give to her infant; but on no account should any other drug be given, except by the doctor's order. Having cleared the bowels, feed the child in the manner already described, and it will in all probability recover.

*Constipation* occasionally occurs in children. In such cases it is a mistake to administer laxatives. The best treatment consists in the introduction of a piece of soap into the bowels, to be left there until expelled. This is usually sufficient to excite the action of the torpid organ.

*Jaundice.* —Young children are subject, sometimes, to jaundice soon after birth. The skin and whites



of the eyes become yellow; the stools may be pale or retain their natural colour. This condition generally passes off in a few days without treatment. If the bowels be confined, an occasional tea-spoonful of castor oil will help the cure.

*Thrush.*—Sometimes the mouths of children—the tongue, lips, and cheeks—become covered with numerous small white spots: this is thrush. It is due to imperfect nutrition, dependent on improper food.

*Treatment.*—Let the food be regulated, and the mouth be washed out with a weak solution of borax—about twenty grains of borax to the ounce of water.

*Sore Bottom.*—A child should rarely or never suffer from this. If care be taken in changing the napkins as soon as they have become soiled with urine or motions, to dry the parts properly at each change, to observe absolute cleanliness, and to anoint the part with olive oil, zinc ointment, or to apply fuller's earth, a sore bottom becomes almost impossible. In certain cases, however, when the child has become reduced and weakened by bad feeding, prolonged diarrhœa, vomiting, and thrush, the bottom may become sore in spite of all precautions. In such cases the treatment must be directed to the more serious mischief, and the aid of the doctor called in.

## CHAPTER XVII.

## MONTHLY NURSING.

MUCH has been already said—under the heads Management of Labour, Lying-in, the milk and the infant—of what pertains to the duties of the monthly nurse. There are, however, still a few points which come especially under this head.

Nurses are now trained for special branches as well as for general nursing. The time is gone when a woman who is unfit for any other occupation can turn nurse; and though an occasional "Sairah" may still be seen, yet the days of that genus are passed. Good monthly nurses are now trained in our lying-in hospitals, and there is, as a rule, no difficulty in obtaining one from these charities or from one of the nursing institutions.

A nurse should not be so young as to be giddy, nor so old as to be useless. She should be cleanly, sober, truthful, and, above all, have a well-governed tongue. The want of the latter quality totally disqualifies a woman for nursing, whatever other qualifications she may possess.

Her dress should be plainly made, and of a material



that can be washed. She should have a light step and a kindly disposition; a light sleeper, for she should wake at the faintest cry of the infant as well as at the call of the mother.

The monthly nurse, if possible, should be a person known to the new mother or her friends.

It is desirable that the nurse should be in the house two or three days before labour sets in; in these she has time to arrange the bed and the lying-in room, and get everything ready for the expected event.

The following articles should be in the lying-in room ready for use:—

Baby's clothes.	Thread or Worsted for tying the navel-string.
Basins and water, hot and cold.	A Flannel to receive the child.
Cold cream or lard, and olive oil.	Needles and thread.
Napkins.	Scissors.
Towels.	Waterproof sheeting.
Safety-pins.	Powder-box.
Binder.	A Higginson enema syringe.
Sponges.	

When labour is about to begin, if the bowels have not already been freely moved, the nurse should give a clyster of soap and water. This will save future trouble and inconvenience.

Before, or as soon as labour sets in, the bed ought to be made ready. This is done in the following

manner :—Uncover the mattress, and over the lower half of it spread a sheet of mackintosh, and upon this again a sheet folded double ; upon this the ordinary clean sheet upon which the patient is to lie after the labour is ended. Upon this sheet another piece of mackintosh should be spread, then a folded blanket, and lastly, a folded sheet. These should cover the lower half of the bed so as to reach up to the patient's waist.

When the labour is over, the upper piece of mackintosh, blanket, and sheet, are to be withdrawn, and a dry clean bed is left for the new mother to lie upon.

A patient should walk about during the process of labour, for the force of gravity favours the progress of the child. When she goes to bed, she should be dressed in such manner as to give rise to as little trouble as possible in the readjustment which is necessary when the process is ended. This is done as follows :—A clean chemise and night-dress are put on just before going to bed ; they should be rolled up under the armpits ; and the soiled dresses should be taken off and fastened round the waist, so as to form a covering for the body, and be removed without any serious trouble when the labour is over.

Thread or worsted for tying the cord should consist of several lengths of coarse white thread or worsted,



or a piece of narrow tape answers the purpose equally well.

The binder should be made of stout calico, folded, about two yards in length, and about a foot or fourteen inches in width.

Having seen that all the articles required are ready at hand, and labour having set in, new duties devolve upon the nurse. She should see that the bowels and bladder are thoroughly emptied at the commencement of labour, and the latter organ from time to time afterwards. Women complain of cramp in the limbs at some stage of the process; in such cases the nurse should gently rub the part in order to afford relief.

Small quantities of food may be given to, but not forced upon, the patient during labour; it should be fluid: beef tea, milk, and tea. Cold water may be given in small quantities, but big draughts of it should not be allowed. Solid food is not necessary; and stimulants should not be given at all, unless expressly ordered by the medical attendant.

Vomiting is of frequent occurrence during labour. It has no serious import; on the contrary, it is often considered to be a favourable sign, for it is said that a sick labour is a safe one.

When the pains assume a forcing character and go to the back, the waters having come away, the medical attendant should be hastily summoned. As

the pains in the back increase in severity, gentle pressure to support that part gives relief, and the lying-in patient generally expects it and calls for it. As the child is about coming into the world, the nurse is often requested to support the patient's knees, so as to separate the limbs, and relieve the patient of the effort required in maintaining it in an elevated position.

Should any unfavourable symptoms appear during the course of labour or of the lying-in month, the nurse should at once send for the doctor and communicate the fact to him. Convulsions occasionally occur, and they are of grave import. At other times the patient may faint. In this case it is probably due to loss of blood, and the nurse should immediately examine to see if such is the case. She should press on the uterus, in the manner described under Labour, until the doctor comes. Nurses, under circumstances of this kind, are fond of foretelling the course that events will take; it is a very foolish practice, for it is not possible for them to form an accurate opinion, and consequently they are as often wrong as right; the only results of such imprudence is to give trouble to the family and attendant.

A nurse should keep a careful watch over her patient during the lying-in month. She should see the breasts, and find out if the secretion of milk is abundant and sufficient for the child; she should



carefully examine the discharges, observe the quantity and quality, and report to the medical attendant upon them. If they be deficient or offensive in character, if the patient complains of severe or lasting pain in the abdomen, the breasts, or the limbs, should she become feverish or have a shiver, the doctor should at once be made aware of it; for some of the diseases to which women are subject at this period yield rapidly when attacked early, but run a prolonged course when once they have taken firm hold of the patient.

For further treatment of the lying-in period and of the infant, see Management of Labour, &c.



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