It is generally considered that the single hydatids, with the claw, are living single-celled beings, and those in bunches aggregated cells. It is certain that many of them, when expelled from the womb or vagina, will move in warm water, and apparently live for some time after, but others again shrivel up immediately they are separated from the body. Their nature will be better understood by referring to the previous chapters on cell growth, and on the development of parasites.

The causes that give rise to these morbid growths are very obscure; probably we might enumerate most of those that have a tendency to irritate, excite, and disease

the uterine organs.

The symptoms of hydatids also are not at all distinctive. Most usually they are taken for those of pregnancy, hydrometra, or metritis. The enlargement of the abdomen which they cause will sometimes be as great as that at the full period of gestation, or even greater; but does not take place so rapidly, and is unaccompanied by any movements like those of the child. The breasts will swell, however, and the menses usually stop, which makes the female think she is certainly pregnant, particularly when she becomes sick at the stomach, and nervous, as is usually the

These symptoms may continue for a long time, and may even remit with periods of perfect ease, till at last the hydatids are suddenly discharged, their expulsion being often preceded and accompanied by pains and floodings, so similar to those of child-birth, that the woman cannot be persuaded she is not really a mother, till the morbid mass is shown to her. Sometimes the whole mass will come away at once, like a large bunch of grapes, and at others, portions will come at intervals. When all the hydatids are removed she usually recovers her health, and may suffer no after inconvenience; the disease being seldom serious in its results.

Some kinds of hydatids are found to exist in the unmarried state, but most usually they are found in the married, and, in many cases are probably connected with an imperfect conception. Frequently they are found along with a blighted foctus, and very often the duration of their development, and the period of their expulsion, occupy a definite time, like a real conception. In general, they are expelled about the seventh month; but sometimes they remain till the twelfth or four-teenth. The expulsion is usually followed by a lochial discharge, swelling of the breasts, or even milk fever, the same as a real birth.

When the hydatids are retained too long, severe symptoms may arise, such as flooding, swelling of the limbs and face, with general emaciation, and fainting fits, that may even terminate fatally; but this is seldom the case.

No precise directions can be given as to the treatment of these cases, because we never can be sure that hydatids exist, till we see them expelled. The same general treatment recommended for metritis, may be adopted to relieve urgent symptoms, and means may be taken to bring on the expulsion if we are satisfied that the hydatids are there; but it must always be recollected that there may be a real pregnancy, so that no such means should be resorted to unless there is an absolute certainty as to their existence.

I once saw a case of a lady who had been supposed pregnant, and who was actually attended for labor, from whose womb was expelled a small pailful of hydatids, after which she perfectly recovered.

The single hydatids, with claws, may exist either in the womb, or in the vagina, even near to the external lips. Their origin is enveloped in complete mystery.

Dr. Ryan gives us the following account of hydatid tumors in his Gynaco-Pathology:—

"Another kind of tumor which frequently attacks the womb, is the hydatid. It is generally observed, in consequence of destruction of the fœtus, in the early months, retention of some part of the placenta after delivery, or abortion. There are no diagnostic symptoms, and consequently the disease is often mistaken for pregnancy, or for various morbid affections already described. The size of the womb does not correspond with the supposed period of pregnancy, and there is no motion or quickening perceived. In some cases, the health does not suffer. I have known a case of hydatids continue for fourteen years, and during the greater part of the time, there was no derangement of health. This case was mistaken for pregnancy, by several medical men, during the period; indeed, one of them sat up four nights, expecting delivery, the uterine pains were so severe; and yet there was no pregnancy, and of course no delivery took place. This woman in eight years afterwards, was attacked with uterine pains, fully as severe as those of labor, and expelled a number of hydatids, with a large quantity of water; she discharged some pints, mixed with purulent matter.

When the orifice of the organ is enlarged, and the tumor extensive, the hand may be introduced to expedite the process of expulsion, and to excite the contractions of the womb; but this should only be resorted to in case of hemorrhage, or other urgent symptoms.

"There is generally pain, fever, and constitutional disturbance during, or after the expulsion of the hydatids; in the case that I have just described the most violent symptoms of peritonitis set in, and nearly destroyed the patient. In such disease, the usual remedies are to be employed. The expulsion of hydatids has been mistaken for abortion, even by the justly celebrated Dr. Cullen. Dr. Hamilton stated in his lectures, that one of his father's patients being ill, Dr. C. was called in his absence, and declared the lady had miscarried. This opinion was the innocent cause of destroying domestic happiness in that family ever afterwards, as she and her husband had lived separately for two years. On Dr. Alexander Hamilton's return, he declared the bodies expelled were hydatids, and that there was no abortion; but the parties were never after happy. Dr. Hamilton also mentioned that a Dumfries practitioner wrote to him concerning a wonderful case, where a female who had aborted expelled seventeen ova; of course these were hydatids. Hydatids vary from the size of a pea to that of an ox's bladder; they are usually small oval bodies, composed of a membrane which surrounds a quantity of fluid, and have a strong resemblance to the ovum in the early months of gestation. Sometimes there is but one hydatid; at other times there will be several, of various sizes; they may be attached to each other, like bunches of grapes, or included one within the other. There is a living animal floating in the center of each hydatid. Though the abdomen may be swelled as large as in the last months of pregnancy, yet there will be no motion felt; the breasts will be flaccid, and no child can be discovered. There may be some slight pain; but there will be indistinct fluctuation in most cases. We can distinguish this complaint from ovarian dropsy; the swelling being in the womb in the one, and in one side in the other.

"The duration of the complaint varies very considerably. I have observed the disease continue for fourteen years; I have seen it so early as the tenth year. There is often a copious discharge of water from the vagina when a hydatid bursts, and the

tumor of the abdomen will become suddenly diminished. Dr. John Clarke knew a lady to whom this happened, while sitting in an eating-house, and she literally deluged the floor. This disease usually terminates in this way, after any sudden or violent exertion. It has been attempted to remove the fluid through the orifice of the womb, but that is a very doubtful operation; because, if there be more than one hydatid, the sac of one may be evacuated, but that of every one else left untouched. Sometimes the bag or sac comes away, and without much pain. Hildanus mentions the case of a woman who supposed herself pregnant; but, dum noctu marito ren haberet, a sudden inundation swept away all her hopes. I have seen a female, aged thirty, who, during menstruation, expelled a number of small white worms, resembling white silk, cut short, and these were from hydatids; the expulsion of them was always accompanied by a discharge of water, and not from the bladder. There is a similar case recorded by a Mr. Wellson, in one of the early numbers of the Edinburgh Medical Commentaries, vol. iii., p. 36. This disease is often combined with pregnancy, or with a mole, and rarely appears alone. Dr. Monro secundus proposed the injection of some bitter infusion into the uterus, as recommended by Cockson; which now can be accomplished by means of the patent syringe. When expulsion is likely to be effected and uterine contraction or pain present, some think the ergot of rye might be used with great advantage, by increasing uterine contraction; and more probably expelling the whole of the hydatids from the womb. I have been told of a case where the obstetrician introduced his hand, and brought away a basinful of these substances. Very early in my practice, I was requested to tap a girl ten years old, who had ascites, evident fluctuation, tense abdomen, on the parietes of which numerous veins were evident. To my great astonishment, no more than six ounces of fluid escaped, though the canula was clear, and the fluctuation most evident; this was decidedly a case of ovarian or saculated dropsy, or perhaps hydatids. When we bear in mind that hydatids are vesicles, formed of a thin membranous coat, filled with serum; sometimes cemented together in the form of a great bunch, and hanging by one or more pedicels; sometimes distributed into separate divisions, fixed by different pedicels, which may be filled with limpid, turbid, or purulent fluid, we can readily conceive how the perforation of one of these, which may vary from the size of a millet seed to that of an inflated ox's bladder, may be followed by a considerable discharge, and yet that the abdominal tumor will not be much diminished, and fluctuation will remain very evident. This disease was described by Ætius."

Restoring the healthy state of the womb, and cleansing the passages regularly with injections, usually prevents any further increase of these morbid growths.

## CALCULUS, OR STONE IN THE WOMB AND VAGINA.

Very few people have ever heard of such a disease as this, and I have no doubt but the mention of it will excite considerable surprise. In looking through medical books and periodicals, however, many cases of it may be found narrated, and I have certainly seen two myself.

The body called the stone is sometimes hard and brittle, exactly like a stone from the bladder, with which it might readily be confounded; at other times it is softer, like bone or chalk. The origin of these bodies in so strange a situation is a matter of dispute; some of those in the vagina may be formed from the urine passing in, but those in the womb are most probably derived from a crystallizing of the saline

matters which naturally exist in the secretions of the parts, or from their incrustation round a tumor or hydatid. In cases of extra uterine pregnancy also, small pieces of bone may pass down the Fallopian tube, and form a nucleus. So may forgotten pessaries or other foreign bodies which are often introduced into the vagina, for various purposes.

These calculi may exist during the whole of a person's life without causing any great inconvenience. They have frequently been found in the womb, or imbedded in its walls, in making dissections. In some cases, however, they produce the most violent inflammation, and all the symptoms that usually accompany polypus, or even abscess, or mortification.

If we are satisfied that one exists, by feeling it with a sound, it must be grasped with a pair of proper forceps, and so removed. It may even be necessary, if it be large, either to cut the os tincæ, to allow of its passage, or to break the stone itself into small pieces. The occasional necessity for these operations will be evident, when we reflect that uterine calculi have been found from the size of a pea to that of a child's head, and weighing from a few grains up to four or five pounds. One surgeon gives us an instance where he removed forty-two small stones from the womb.

The natural power of the uterus itself will frequently expel these unnatural substances, and, when we are satisfied they exist, we may, if they are not too large, advantageously assist its contractile tendency.

In one of the cases which I saw, the stone was expelled along with the menses, and caused a sensation like the passage of a large clot. It was about as large as a pea, and brittle as glass. The symptoms arising from it had been very slight, but sufficient to indicate that some foreign body was in the womb, which was supposed to be a small tumor.

## INFLAMMATION OF THE OVARIES AND FALLOPIAN TUBES.

All the appendages of the uterus are liable to inflammation, the same as that organ itself, and in many cases it is extremely difficult to tell in what part the diseased action really exists, till the discharge of the morbific matter occurs.

The causes that lead to inflammation of the ovaries and tubes are, probably, the same as those that produce metritis. It appears, however, from observation, that deranged menstruation, or excessive excitement, is more apt to inflame the ovary than the womb. And so are long-continued attacks of hysteria, and the use of forcing medicines, or those intended to produce certain feelings. The important part which the ovaries fulfill, in the secretion of the menses, and in the process of conception, keeps them constantly active, and therefore peculiarly liable to these causes of disturbance. Inflammation of the ovaries, called ovaritis, is also more likely to attack those persons of certain temperaments, unless they exercise great control.

The symptoms of ovaritis are, burning pain in the groin, which darts all over the abdomen, down the thighs, and into the loins; a difficulty in passing the urine, or moving the bowels, sickness, fever, thirst, general depression and restlessness, with lassitude and weakness of the limbs. A small round swelling appears in the groin, or in each groin if both ovaries are inflamed, and gradually extends over the whole abdomen, which becomes hot and tender to the touch, and eventually so sensitive that the slightest pressure upon it will cause sympathetic spasms, and convulsions, of the lower limbs. These symptoms of course vary according to the intensity of

the attack, and the extent of the inflammation, which may either be confined to the ovary, or tube, or extend to the uterus, or other parts.

Inflammation of the Fallopian tubes is characterized by almost precisely similar symptoms, so that we cannot distinguish it from ovaritis; this, however, is of little consequence, as nearly the same treatment is indicated for both.

An ovaritis may subside, like any other inflammation, and either disappear altogether, in about eight or ten days, or pass into the chronic form. When it continues the result is similar to that of metritis; suppuration ensues, and an abscess forms, usually about the twelfth or fourteenth day. This is indicated by chills and fevers, languid circulation, and acute throbbing pain in the tumor. The pus eventually makes an opening and is discharged, either through the walls of the abdomen, or into the rectum, bladder, or peritoneal cavity, or down the tubes into the womb and vagina. After this discharge the patient may recover. Very frequently, however, the termination is lamentably different; symptoms set in precisely like those of puerperal fever; the whole of the organs in the pelvis and abdomen become intensely inflamed, their functions cease, fever and delirium supervene, and a fatal issue soon

When it passes into the chronic form the symptoms gradually subside, though they remain always subject to sudden increase, from slight causes, and the swelling may eventually disappear. More frequently, however, it becomes permanently hardened, or gangrened, or cancerous. It is seldom that any of these diseased states are cured. They may remain, however, for years before they wear the sufferer out, though sometimes they cause death very suddenly.

The treatment of ovaritis, in the acute stage, is similar to that of metritis. A cooling, unstimulating diet-diluent and acidulated drinks-poultices and leeches to the swelling-warm baths, and injections of poppy-heads, or starch and laudanumpurgatives—and absolute rest. Plentiful bleeding is almost invariably resorted to, and, if the inflammation cannot be made to subside by other means, it may be advisable, but should be avoided if possible.

If in spite of all these means an abscess forms, it must be opened, when ripe, at the safest and most convenient point, and when all is discharged the wound must be encouraged to heal. If gangrene, or cancer, arises, the treatment will of course be the same as for those diseases when in other parts.

When ovaritis becomes chronic, we must endeavor to draw off the inflammation, by making increased action elsewhere; this is called the revulsive treatment. For this purpose we may employ blisters, or setons, or stimulating frictions, to the groins, loins, and inside of the thighs. The ointment of hydriodate of potash is excellent to rub over the ovary. Injections of laudanum and starch will also assist, and occasional enemas, of starch alone. The bowels must be kept free, and the diet rigidly attended to. Perfect rest must be observed in everything. In conjunction with these means, we may advantageously employ alterative medicines, mineral waters, particularly those containing iodine, and sea bathing. Warm clothing must be worn, and care taken against catching cold. The result of this treatment, if it be rigidly persisted in, is a perfect cure, in many cases, but the duration of the disease is always uncertain.

The operation of cutting out the diseased ovary has frequently been performed, but is now pretty generally condemned by the most eminent surgeons. It is found by statistics that nearly one half of those operated upon die of the operation; and of

those who recover, it is questionable whether life is prolonged much, if any, beyond what it would have been without it! The operation is, in short, a fearful one, uncertain as to the slightest good, and frequently attended by accidents of the most unlooked-for and serious character. The patient's chance is, in my opinion, in most cases, better without it than with it.

It is perhaps advisable to remark, in conclusion, that in some forms of ovarian inflammation, the patient is subject to an intense degree of excitement, which sets all self-control at defiance, and leads to moral consequences that would never have been dreamt of in a state of health. As I have already remarked, moral evils more frequently arise from physical diseases than many persons suspect.

## DROPSY OF THE OVARIES AND FALLOPIAN TUBES.

This disease exhibits itself in the form of an accumulation of fluid in one, or both of the ovaries, or tubes. It is sometimes contained in one vesicle, or bag, and sometimes in several, either associated together, or each one distinct by itself. This fluid, or water as it is termed, is sometimes clear and colorless, and at other times thick and slimy, and occasionally it is reddish, or like coffee grounds. The quantity may vary from half a pint, or less, to five or six gallons, or more. It may be secreted in large quantities in a very short time, or years may elapse before sufficient is accumulated to occasion inconvenience. The dropsy may also be attended by considerable constitutional derangement, or the patient may not be at all incommoded, except by the size of the tumor. I knew one case where the patient had been so swelled, for nearly twelve years, that she could scarcely force herself through an ordinary doorway, and yet enjoyed tolerable health all the time. The causes of this disease are not very well understood, though it is generally supposed to result from previous inflammation. There is little doubt, however, but that it may arise independently from the same causes that produce ovaritis, and from various injuries.

The earliest symptoms of ovarian dropsy are also very obscure. In general there is neither pain nor inconvenience, of any note, and what is experienced is very apt to be taken for the results of pregnancy, particularly as there is usually a similar swelling of the abdomen and breasts, suppression of the menses, sickness, and capricious appetite. Both patient and physician are often deceived by these signs. The gradual increase of the tumor in the groin, however, after the usual period of gestation is passed, and the occurrence of a deep-seated permanent pain in the same part, soon create suspicion of the truth. This tumor is in most cases movable, but not always, and may be years before its size is noticeable. Sometimes it feels in lumps, and is painful, at others it is perfectly smooth, and may be pressed without producing any suffering. Generally it projects more on the one side than the other, and falls over when the female lies on the opposite side, but when both ovaries are affected, both sides appear the same. It never however projects at front like a pregnancy, or like the engorged womb. As already remarked an ovarian dropsy may not seriously compromise the health, at least not for a long time, but, as a general rule, there is more or less trouble occasioned by it. The enlarged tumor, for instance, sometimes presses on the intestines, bladder, and stomach, and impedes their functions, producing costiveness, difficulty in urinating, and sickness. It is also hable to displace the womb, and produce anteversion, or retroversion, or prolapsus. The patient also feels a severe pulling and dragging, when she stands or when she lies on

her side, and sometimes suffers from difficulty of breathing, owing to pressure on the diaphragm. Various other symptoms, too numerous to mention, are met with in

Some authors consider this disease as always the result of a cancerous condition of the ovary, and if it be so, it is probably the most favorable form in which the cancer could exhibit itself. Both the mode, and the time of its termination, are so uncertain that little can be said about them. Patients have lived to be sixty or seventy years of age, who have had dropsy of the ovary most of their lives. Sometimes the cyst, or bag, will burst, and the fluid will then either be absorbed, or escape through some of the passages, or perhaps produce peritoneal inflammation. The pressure on the different organs may also lead to other kinds of inflammation, and a fatal result may thus be brought about. General dropsy is also likely to be produced, and various forms of cancer or gangrene. In short, though some escape death, and even severe suffering, for many years, the disease has nearly always a fatal termination, sooner or later. Those who are cured, either spontaneously or by medical treatment, are extremely fortunate, and considering how prevalent the disease is, their number is fearfully small.

Medical men are but little agreed as to the best treatment in ovarian dropsy; each one usually adopting a plan of his own, and for the most part merely as an experiment. Almost every drug in the pharmacopæia has been used-all kinds of baths, blisters, pressure, firing, puncture, -and a host of other means, all of which have been adopted, praised, condemned, and abandoned, in their turn. It is probable that each of these plans may be useful under certain circumstances, and that no general treatment can be advised that will suit all cases, excepting such as improves the health, and removes any irritating causes that may exist.

As a last resort, when medical treatment fails, either of two operations may be performed; that of tapping, or cutting out the ovary, and, unfortunately, the success hitherto attending both of them has been so small that neither seems to be justified by the result.

The operation of tapping is, in fact, scarcely considered as a means of cure, but merely as a means of relieving the patient for a time, when the accumulation of fluid has become very great. In many cases the tapping is followed by immediate death, and in many others it undoubtedly shortens life, though it may occasionally prolong it. In the "Philosophical Transactions" is an account of a case of dropsy where the woman was tapped one hundred and fifty-five times, and as much as five thousand seven hundred and twenty pints of fluid drawn off! It is supposed that life was thus prolonged several years. Many other such cases are on record.

Sometimes, after the fluid is evacuated, an astringent injection is thrown in, to stop any further secretion, and in some cases, it is stated, successfully, though in others with the most alarming results. There are many circumstances, in short, that make the operation altogether inadmissible, and some of them cannot be fore-

The removal of the ovary is, probably, a still more objectionable experiment. seen. The results of it for simple induration have been alluded to elsewhere, and it is sufficient to say that it is no more successful for this disease than the other. A few are cured by it, and many die from it. On the whole, the opinion of that celebrated surgeon, John Hunter, is probably near the truth, that patients would probably live longer if they were not meddled with.

Dropsy of the Fallopian tubes apparently results from the same causes as dropsy of the ovary, and can seldom be distinguished from it. The same remarks, however, as to treatment, apply to both.

Besides these accumulations of fluid, however, the ovaries frequently contain hydatids, and various other substances.

Most of these ovarian diseases are found to prevail at that period of life when the uterine system is most active, namely, from twenty-five to forty-five. They are seldom or never seen after the change of life, nor before puberty, and are chiefly confined to those who have borne children.

The female organs are, of course, liable to many other diseases, which have not here been alluded to, because they belong equally to other parts of the system, and it is our intention now to confine ourselves to those peculiar to the sexual organs

## CHAPTER LV.

DERANGEMENT OF THE FUNCTIONS OF THE FEMALE ORGANS, AND OF THE NERVES.

In addition to malformation, imperfect development, displacement, and organic disease, the female organs are also liable to become deranged in their functions, either as a result of some other diseases, or from independent causes. These functional diseases require special and distinct notice, and will solely engage our attention in the present chapter. The most important of them are connected with the process of menstruation, the nature and objects of which have already been explained.

AMENORRHEA, OR NON-APPEARANCE, OR STOPPAGE, OF THE MENSES.

The menstrual discharge may either stop after it has once commenced, or it may fail to appear at all, and the causes that lead to this suppression, or non-appearance, may be either constitutional, or accidental.

Among the constitutional causes may be mentioned certain peculiarities of temperament, such as that denominated the sanguine, which disposes to congestion of the different organs, thereby diverting the blood from the uterus. This is generally denoted by a full habit, florid complexion, and great activity. The lymphatic temperament, in which there may be great fullness of form, but accompanied by debility, disinclination to motion, and slow pulse. A scrofulous taint appears also to operate in the same way, and hence we often see scrofulous girls, and those with either of the above temperaments, much later than others in commencing to menstruate. Among the accidental causes may be mentioned all those which deteriorate the general health, such as living in a damp situation, not being sufficiently exposed to the sun and air, improper or insufficient food, want of exercise, or excessive labor, and depression or over excitement of the mind and feelings. The occurrence of leucorrhœa, before puberty, is very apt to prevent the menses from commencing, and this is oftener the case than is suspected. Sudden cold should also be particularly mentioned, and the action of strong medicines. Even scents, and powerful odors in general are supposed by many to have an injurious influence. The celebrated Haller especially alludes to the smell of pennyroyal as having the effect of preventing the menstrual flow. Many other diseases undoubtedly cause amenorrhoa, by the increased action they produce elsewhere, and so, I am convinced, will excessive study, by the excitement it keeps up in the brain.

All these various causes may of course suppress the flow, when already established,

as well as prevent its appearance.

Many times I have known the receipt of some bad news, a sudden fright, or

severe disappointment, cause instant suppression, and such vivid emotions as anger, jealousy, or excessive joy will also undoubtedly do the same. Even frightful dreams have had this effect, or the sudden start from hearing a clap of thunder, or the firing of a cannon.

In addition to all these there must further be mentioned many of the different diseases, displacements, and improper developments of the uterine organs, already described-some of them having a morbid effect, and others merely opposing mechani-

The symptoms and effects of suppression, or non-appearance, are numerous and often serious, and may be either local or general. Among the local symptoms are pains and dragging feelings in the loins and groins, with a sensation of weight in the pelvis, and great weakness in the limbs. Sometimes there is also inflammation of the external parts and a peculiar excitement, which becomes, in some cases, excessively annoying, or leads to vicious habits.

The general symptoms are much modified by individual peculiarities, though there are some of them pretty constant in most cases. Thus, we nearly always observe a feebleness and languor of the system, and the loss of that freshness which characterizes healthy youth. The eyes become dull and surrounded by a dark circle, the heart palpitates, the breathing is difficult, the head is dizzy, or constantly aching, pains like those of rheumatism dart about the limbs, and severe cramps often occur in various parts of the body. The mind and feelings also suffer, so that the patient is dull, impatient, irritable, and melancholy, and so acutely sensitive that the slightest disappointment or contradiction will make her weep. Some, of peculiar temperaments, on the contrary, are singularly excited. They will be continually moving about, though they have no particular reason for doing so, and impatiently seek every kind of amusement and gay society. I have known some of these patients even become ungovernably impetuous and so disposed to activity that the ordinary quiet female occupations were irksome to them.

These symptoms may continue for a considerable time, or they may be speedily followed by more severe ones, particularly by inflammation. Most usually, however, they are succeeded by leucorrhea, dropsy, diarrhea, nervousness, convulsions, epilepsy, St. Vitus dance (chorea), or delirium. The flesh wastes away, or hangs flaccid on the bones, the skin is cold and sallow in its color, and the whole system seems to rapidly decay. Eventually, the abdomen enlarges, the breasts swell, the stomach sickens, the appetite disappears, or becomes capricious, and a sensation of discomfort and misery creeps over the sufferer, till she almost loathes existence.

When the suppression occurs suddenly, the female often feels many of these symptoms at once, and very acutely. Thus, some will suffer instantly from a dragging, bearing-down sensation, or from pain in the back, while others will be seized with headache and giddiness, or even faint away; others will be attacked with leucorrhea, diarrhœa, or inability to pass the urine, and others, again, will be taken with a chill and fever.

One of the most singular consequences of suppressed menstruation, however, is the appearance of another discharge in some other part of the body, which apparently acts, to a certain extent, as a substitute. The leucorrhœa, and diarrhœa, already referred to, act in this way to a certain extent; but what we have more especial reference to at present are, hemorrhages, or discharges of blood, from various parts of the body. These have been known to occur from the nose, the ears, the bowels, the nipple, the bladder, the armpits, under the nails, from ulcers or other sores, and from the gums or teeth. Sometimes these discharges will occur with the same regularity as the real one ought to do, and really answer for it; but at other times they are irregular, or almost constant.

Lastly, we may mention, as some of the ultimate consequences of suppression, hydrometra, engorgement, gangrene and cancer of the womb, with various chronic

affections in other parts, and insanity.

In commencing to treat amenorrhoea, the greatest care and circumspection is required. It may be merely a consequence of some other disease, the removal of which is all that is required to effect a cure. Thus it is produced by disease in the stomach, the heart, and the spine, and by consumption. It may also be occasioned merely by a closing of the natural passages, as in imperforate hymen, or closed vagina, and then of course these only require opening; and lastly it may be the result of pregnancy, which the patient is either unaware of, or wishes to conceal. The practitioner must, therefore, use the greatest precaution, so that he do no injury, either from his own inadvertence, or from the criminal deception of his patient.

It must also be borne in mind that some females are much later than others, and that some, again, stop much sooner, from natural causes. There must, therefore, be no hurry in prescribing, unless derangement in the general health indicates its immediate necessity. Again, in many cases, a considerable time elapses after the first one or two periods before another occurs, and without any ill effects. I have known the interval between the first and second period be extended to more than twelve months. This is apt to be the case when puberty commences unusually early.

When we are satisfied that the amenorrhoa is really due to some morbid condition, and not to any of the above causes, a careful study must be made of the patient's constitution, habits, and mode of life, before judicious treatment can be recommended. Very frequently nothing more is required than a proper attention to the general health, particularly in those of a weakly constitution, or lymphatic temperament, and in those who have been prostrated by a former sickness. In such cases, the happiest results often follow a change of air and the adoption of a nourishing diet, with a little good wine; the use of mineral waters, particularly those containing iron; cold baths, with good dry rubbing after; plenty of exercise, especially walking or riding on horseback, and dancing. There is no doubt but this difficulty often arises from the early abandonment of youthful recreations. The absurd notions of society condemn, in young girls, those exhilarating sports and pastimes so conducive to happiness of mind and health of body, and the necessity for which in boys is universally acknowledged. The perfect development of the system is sacrificed to false ideas of propriety, or rather, disease is chosen with fashionable observance rather than health without it. There is no doubt whatever but that the too early abandonment of the hoop and the skipping-rope creates an early necessity for the doctor!

The state of the mind and feelings must also be carefully attended to, as their derangements have frequently much to do with this disorder. The patient's friends must carefully remove all causes of excitement or unhappiness, and endeavor to promote a state of cheerfulness and contentment. The morbid melancholy and sentimental dreaminess brought on by reading trashy romances is very hurtful, and should be broken up by exciting mental and bodily activity. I have known many young females attacked with suppression from attending protracted religious meetings, lovefeasts, and camp-meetings.

When such means fail, medicines may be resorted to, and it is but justice to say that they are often successful in this disease, though they so lamentably fail in many others. The best article, and the one most generally used, is iron, which is prepared and used in numerous different ways. The particular preparation of this metal most suitable for any given case must of course depend on a variety of circumstances, and had better be indicated by the medical adviser. As general formulæ however, beneficial in most cases, and not likely to injure, the following recipes will be found excellent :- Sulphate of iron, two drachms; extract of absynthium, four drachms; syrup of saffron, enough to make it into a paste. This must be divided into one hundred and fifty pills, one to be taken three times a day. Or, sulphate of iron, one drachm; extract of gentian, enough to mix it up. Divide into thirty pills, and take one three times a day. Or, in case there be any indications of scrofula, M. Lagol recommends protiodide of iron, six grains; starch, twenty-four grains, and sufficient syrup of gum, to make it up. This is to be divided into twenty-four pills, one of which may be taken morning and night. The compound iron mixture may also be tried, or the aromatic mixture, in the usual doses, as advised for leucorrhea.

Warm injections may also be used, if the age and condition of the patient will allow, and warm baths or fomentations at bed-time, with hot bitter teas.

Stronger remedies are of course known, but they are not mentioned here, because they should not be employed except under proper advice, and they might be used under mistaken notions, or from criminal intentions, for other purposes. The above recipes are as simple and harmless, in all states of the system, as any that

In those cases where the disorder arises from an opposite state of the system, that is, from too great a fullness, and determination of blood to other parts, the treatment must be different. In these cases we must commence by prescribing a rather spare and mild diet, chiefly vegetables, with cold drinks. Cold bathing should also be practiced, and violent exertions, either mental or bodily, carefully avoided. In case such means, when fairly tried, do not accomplish what we wish, warm foot and hip baths may be used, and warm injections and enemas, with stimulating and aromatic fomentations to the external lips, or vulva. The medicines already referred to may also be used, but sparingly, and with caution, and also warm purgatives, as the compound aloetic pill. These means should be tried for about a week before the turn is expected, or ought to occur, and continued for several months if necessary. It frequently happens that no effect is perceived for a long time, but if the symptoms do not become alarming, it is better to persevere with these modes of treatment than to adopt a more powerful one. Some authors speak very highly of the good effects of leeches, applied to the external lips, a few days before the period is expected. And others recommend them to be applied to the breasts! The reason for this apparently strange recommendation being the intimate sympathy between the breasts and uterus, owing to which any increased action in the one, is usually corresponded to by the other. I have frequently applied a mustard poultice to the breasts with the happiest results.

Sometimes the non-appearance of the menses is owing merely to a torpor, or want of action in the uterine organs, which is generally denoted by the manners of the young person, and by the want of development in other parts of the system. She is cold and indifferent, takes no pleasure in the company of the other sex, and exhibits no sympathy or desire for companionship with those who do. The pelvis

is usually small, and the breasts but little developed. In these cases, it must be recollected that there may be no great necessity for menstruation, and, at all events we should not be in a hurry, nor use powerful remedies to bring it on, unless we have good reason for doing so. If the health suffers from its absence, however, we must interfere, and may then advantageously advise the remedies last mentioned, with warm frictions over the abdomen, and the use of flannel around the pelvis. The patient should also be taken into company, to the theater, and to balls, and may be allowed a rather generous diet, with a little wine. Sometimes a cup is placed on the os tincæ, or if the state of the parts will not allow of it there, on the external lips. Sitting over the steam of hot water is also excellent, and dashing hot water on the pelvis.

In those cases of suppression brought on by powerful mental or moral emotions, or by sudden excitement, we must first endeavor to calm the system as speedily as possible, by enjoining rest, quiet, warm baths, cheerful company, and a little sedative medicine, as a few drops of laudanum, for instance. Then, after a time, the more active means may be resorted to, but very carefully. If the suppression arise from intense excitement in the uterus itself, which is sometimes the case, cold baths, and injections with laudanum, and saline purgatives, will usually subdue it, and effect a cure. Various other medicines have been used in this disease, but I am not aware that any of them have been found more efficacious than iron, which itself is only an occasional assistant. In fact, the uncertainty and frequent inefficacy of medical treatment is generally acknowledged, and has led to the use of many other means, but few of which have, however, been more successful. Among the most efficacious of these may be mentioned the congester, or pneumatic apparatus, invented by Dr. Sunot. This consists of a kind of large air-tight case, which may be fitted to any part of the body, or even inclose half of it, and from which the air may be drawn by an air-pump. On fixing this to any part, and exhausting the air, it acts like an immense cup, drawing the blood to that part with great force. It may even be made to act so powerfully as to cause the blood to exude itself through the pores of the skin. The lower part of the body may be thus acted upon to determine the circulation toward the pelvis. I have had one of these instruments in use for some time, and can safely say that it is one of the most powerful and certain means of bringing on the menstrual flow that we possess. In fact it can scarcely fail! I have known it bring on profuse flooding in five minutes after its application, though the patient had never been unwell for over two years before! Great care must of course be taken in its use, so that it be not employed too powerfully, nor too much. It is often applied to the lower part of the body to relieve headache, which it does by drawing away the blood. Cases have been known, when using it for this purpose, in which it has produced a flow from the womb in females long past the turn of life!

Galvanism, however, if resorted to in time, and in a proper manner, will almost supersede everything else, in this disease. I have employed it in many hundred cases of amenorrhoa, and with such uniform success that I look upon it as nearly certain! In many instances, even after long suppression, the very first application has brought on the flow, and in one instance it did so at the third trial, though the patient had reached her twenty-fourth year without having menstruated. In every case, if the simplest means do not succeed, I should advise galvanism before any powerful medication whatever. The manner of its application varies in different

cases; sometimes it is sufficient externally, one pole being placed on the lower part of the spine, and the other on the abdomen, just over the pubis; but at other times it is necessary to apply it more or less internally, in various ways not necessary to be here described. Neither pain nor serious inconvenience attends its use, nor can any injurious consequences follow, even if it do no good.

On the use of galvanism in amenorrhoea, the editor of Copeland's Dictionary remarks, in a note: "Galvano-electricity, or electro-magnetism, deserves more particular mention as an emmenagogue remedy. We have succeeded in some chronic cases of amenorrhœa, that had resisted all other means, by daily sending a current of electricity through the uterus, or by inserting one conductor in a tub of warm water, in which the feet were immersed, and applying the other over the cervical vertebræ, thus transmitting the fluid through the spinal axis. Dr. Ashwell states that Dr. Golding Bird has recently employed the same remedy with extraordinary success in the treatment of out patients at Guy's Hospital (London). In some of the cases, where, after the condition of the alimentary canal had become healthy, the amenorrhea continued, with slight pallor and weakness, electric shocks passed through the loins quickly induced menstruation. In others, its continued repetition, three or four times a week, led to a similar result; and instances were not wanting where a shock suddenly produced a flow. It is, however, a powerful remedy, and should be employed cautiously, lest it may depress the nervous system, and thus protract the disease. When moderately applied, it often rouses into activity the energy of torpid organs and parts; but when used in excess, it may altogether destroy their excitability. It should not be employed in cases of local congestion or general plethora, nor during pregnancy, and it should seldom be used alone."

There is one mode of applying both galvanism and the congester, and also some other means, which will be understood by referring to the explanation of the cause of menstruation. It was there stated that this phenomenon was produced by the periodical ripening of the ovæ, and that it consequently depended on the occurrence of that event. The healthy and regular action of the ovaries is therefore an essential point, and is always wanting, more or less, in this disease. Our applications, therefore, are frequently required to them, and to them only! I have often brought on the menses by simple friction in the groins, over the ovaries, and by stimulating liniments, when all the ordinary means failed. In like manner, we may apply to the same parts blisters, cups, and leeches, or even galvanism, which, in fact, I generally administer in this way first. The patient will often feel a stimulus all through the uterine system, immediately the ovaries are thus excited, and the reason why is obvious, when their functions and sympathies are borne in mind. I knew a lady subject to suppression, who always succeeded in bringing back her courses by a simple treatment, founded on some information I gave her on this subject. She used to apply a mustard poultice over each ovary, after taking a warm hip bath, and then,

on retiring to rest, drink freely of some hot bitter tea. No medicine was required. In some cases, the menses will reappear after marriage, but not always; and sometimes they will stop from that cause. This is a matter both very difficult and very delicate to advise upon, but it is one that should be seriously considered, nevertheless, for the wrong proceeding in regard to it has condemned many a young person to years of disease and suffering. A physician of experience, by duly weighing all the circumstances of the case, will seldom be at a loss what course to advise, and frequently this is all he need attend to! Some females are attacked with this disease on