

degrees and forms of hysterical and other nervous derangements will manifest themselves. Pain is not constant. I have notes of one case in which most complete casts were passed regularly for many months, very little or no pain being complained of. When they ceased the uterus was distinctly smaller. The patient recovered.

The *treatment* of dysmenorrhœa membranacea will of course be greatly governed by the view we take of the pathology of the affection. If we conclude that an essential factor is sexual intercourse, especially if involving impregnation, the main treatment is obviously prophylactic. Abstinence, that is, physiological rest for a time, should be dictated. We then gain time and opportunity for treating the morbid conditions of the system and of the generative organs.

The survey we have taken of the affection almost precludes the idea that the menstrual membranes are cast by the healthy uterus. It follows that we must carefully study the physical condition of the uterus, and direct treatment to the removal of the complicating diseases.

What are the best local applications? It is clear that the origin of the membranes being the lining membrane of the cavity of the uterus, our remedies must be applied there. We can only act very slowly indeed, if at all, if we trust to the principle of derivation by limiting the application of remedies to the cervix. It is of the first importance to begin by well dilating the cervix, so as to get free access to the cavity of the uterus. In some cases where the disease has been associated with a narrow os externum, the division of this orifice has been followed by relief. If there is a syphilitic taint I would advise the mercurial vapor-bath, using a bath-speculum to enable the vapor to enter the vagina. To the inner cavity of the uterus we may apply nitrate of silver, iodine, bromine, or sulphate of zinc. The iodide of mercury may be applied in the form of ointment by my instrument. (See Fig. 52, p. 155.) The application should be repeated every five or six days.

Mandl speaks favorably of chlorate of potash, as this remedy is known to possess a decided influence on the liquefaction, degeneration, and resorption of epithelial growths and pseudo-membranous exudations of the mucous membrane. In the case he narrates, benefit attended the use of this substance. If nitrate of silver be used, it should be reduced by using three-grain sticks, made by fusing together equal proportions of nitrate of silver and nitrate of potash. Fuming nitric acid is sometimes effective. If there be retroversion or retroflexion, as is not uncommon, this must be corrected.

When there is considerable turgidity of the cervix, from congestion or active inflammation, two or three leeches applied to the cervix uteri, or scarifying the vaginal-portion, may be useful.

Constitutional treatment, hygienic, and including the exhibition of remedies by the stomach or skin, is often essential. Digitalis, bromides, salicylic acid, and other agents that lower nervous and vascular tension, should be tried during the stage preceding menstruation.

The severe suffering attending the dysmenorrhœal paroxysms may be mitigated by opium, Hoffmann's anodyne, chloroform, chloral, Indian hemp, bromide of potassium, or ammonia, or other sedatives. The liquor ammoniæ acetatis is valuable by itself, and the best menstruum for opium.

Trousseau recommended turpentine, in twenty-drop doses, continued for three months, and the prolonged use of warm baths. C. Braun prescribed small doses of arsenic, to allay the attendant painful excitement. Hot water injections or hot baths are often useful.

Tonics, as iron, quinine, strychnine, arsenic, and the mineral acids are almost always serviceable, as adjuvants to local treatment.

The bowels require special care, as accumulation in the rectum is a serious aggravation of all uterine affections.

Prognosis.—With all possible care we must be prepared to find these cases rebellious to treatment for a long time; sterility may be regarded as a consequence; for when pregnancy occurs, and is carried on for some months, the disease may be considered to be cured. But it may return after labor.

CHAPTER IX.

THE MENSTRUAL IRREGULARITIES OF THE CLIMACTERIC EPOCH.

IN connection with the deviations from healthy menstruation, it is convenient to trace the history of menstruation at the climacteric epoch. This epoch is sometimes called the "menopause," to indicate the cessation of the function of menstruation. There is no fixed uniform period for this event. Some women cease to menstruate at forty; others go on till fifty or even later. In some the transition is, if not abrupt, at any rate well marked; in others the transition is protracted, interrupted by occasional suspensions, or the missing of a period or two. The flow becomes irregular both as to periodicity and quantity. This uncertainty has earned for the climacteric age the expressive term of "the dodging time of life;" often it is called "the change;" "*l'âge de retour*;" and a great deal is implied in these expressions. The transition-period, from active ovario-uterine life to the stage of sexual decrepitude or degeneration, is seldom effected without some disturbance; and in many cases the local and constitutional disorders that attend it are numerous and severe.

Physicians do, indeed, talk of the climacteric in man; but the analogy is more fanciful than real. In the male sex there is no epochal limitation of sexual life. There is nothing to compare with the almost sudden decay of the organs of reproduction which marks the middle age of woman. Whilst these organs are in vigor, the whole economy of woman is subject to them. Ovulation and menstruation, gestation and lactation by turns absorb and govern almost all the energies of her system. The

loss of these functions entails a complete revolution. And before the new régime is established, an interregnum of trouble has commonly to be passed through.

For thirty-five years or more, the pelvic organs have been the seat of active periodical congestions, and determinations of nerve-force. When ovulation ceases, this nerve-force and local activity of the circulation are suddenly called upon to find other outlets. The transition frequently entails symptoms that partake of a pathological character. These symptoms are chiefly referred to the nervous system, to digestion, and to the circulation. Menstruation, instead of ceasing gradually, not seldom assumes the form of hemorrhages, more or less periodical. These are sometimes the result of abortions.

The last effort of menstrual life is to propagate. The ovaries retain their function of maturing ova perhaps a little longer than the uterus retains its capacity for gestation. As in the outset of menstruation so in the cessation, the uterus may be found unfit: in the first case it is immature; in the second, there is commencing atrophy. Generally, however, atrophy of the uterus follows that of the ovaries.

To a certain extent the healthily acting ovaries and uterus exert a protective influence; the decadence of the generative organs is attended by increased proneness to the development of organic diseases, especially cancer. We may conjecture that the ovaries and uterus no longer exercising their normal functions and authority, morbid diatheses or organic defects hitherto latent or suppressed, break out, and absorb the remaining energies. Thus in another sense we discover that the menopause is a "critical" or testing event.

When hemorrhages do not occur, or are not substituted by vicarious discharges, as hæmorrhoids, epistaxis, or leucorrhœa, severe headaches and cerebral congestions are liable to take place. Vertigo, epilepsy, apoplexy, are more likely to happen. The headache is peculiar; it is chiefly occipital, involving the nucha and spinal cord; and invokes distressing mental phenomena. Minor moral, emotional, and intellectual aberrations arise. A desponding, gloomy state, verging upon hypochondriasis, is not uncommon. These are often controlled by a well-regulated will; but sometimes they break out. Fretfulness, irritability, forgetfulness, indecision, are the earlier signs. There is nothing so frequently complained of as the want of power of attention, and consequently of loss of memory. The nervous disorders which so often attend dysmenorrhœa and amenorrhœa, are reproduced at the climacteric age with exaggerated force. The subject of them is generally perfectly aware of her condition; she feels acutely the distress her waywardness occasions to others; and when she is unable to control it, she will seek to hide it in seclusion until it has passed away. This is often the explanation of conduct which, to the unobservant, appears motiveless or wilful. This power of comparison, of judgment, is, as Conolly insists, that which distinguishes sanity from insanity. It is a shallow saying that women can give no reason for what they do. They justly claim the privilege of weakness by declining to give one. They rather incur the reproach of being illogical or unreasonable, than wound their sense of delicacy. Woman's decision, then, is to be respected, not questioned.

Disorder of the Alimentary Function is one of the most common attendants upon the menopause. The habit of constipation has perhaps already been acquired. It becomes aggravated. It would seem that there is a metastasis of nerve-force to the intestines. They become the seat of severe spasms. This is due in some cases to loss of tension of the abdominal walls, the result of pregnancy; to loss of tonicity from defective nutrition attendant upon invalidism and want of exercise; to obstruction to the action of the bowels from pressure on the rectum, as from retroversion or prolapsus of the uterus. From these and other causes, especially from the tendency to adiposity, the intestinal canal, wanting its normal contractile property, becomes liable to distension from flatulence and the accumulation of fecal matters. Hence irritation, exciting spasm, and other irregular actions of the intestinal muscular walls. The distress arising from this source is often very great; and in many cases where the nervous centres are involved in the climacteric confusion, the sensations arising in the belly are misinterpreted, and are the immediate occasion of mental phenomena, verging upon, and not seldom passing into insane delusions. One of the most remarkable yet familiar illustrations of this condition is the conviction entertained by the sufferer that her abdominal symptoms are due to pregnancy. In some cases there is enough evidence, *primâ facie*, to impose upon others, even upon the medical attendant. This state is known as "*False or Spurious Pregnancy*," a term which has been Hellenized by Mason Good into "*Pseudocyesis*." It is sufficiently marked to merit special attention. Although arising chiefly at the climacteric period, there is hardly any limit to the age at which these symptoms, and the subjective belief in pregnancy, may occur. Thus, I have seen several examples of women long past sixty, whom it was difficult or impossible to convince that they were not pregnant. Some of these were married, some were single. In the latter case there had been a clandestine intercourse. The mental perturbation consequent upon the sense of error, and the dread of exposure, rendered more vivid the perception of the local phenomena, and completely overthrew the mental faculty by which they were judged. We easily believe what we wish or fear to be true. So strong is the delusion in some cases, that no amount of reasoning or authoritative decision will dispel it. I have dealt with them in this way. I have got the patient to fix the date of presumed conception; the ordinary term at which gestation would be completed is thus determined; and I have told her to come again for examination at a period of one or two months after the expiration of that term. Then, the appointed time having gone by without fruit, the dreaded phantom has sometimes been exorcised. Even then, perhaps, not without reluctance; for in spite of shame, of self-reproach, of the fear of ridicule and loss of position, the dear delusion has been hugged as a proof of sexual capacity.

Dr. Crichton Browne relates¹ a remarkable case in illustration of the influence which the mind can exert over the uterus and ovaries. A woman long past the climacteric, whose last child was fifteen years old, was admitted into the West Riding Asylum, declaring she was two months

¹ Brit. Med. Journal, 1871.

pregnant. To this assertion she held firm; and at the end of seven months informed the attendants that she was in labor. She persisted resolutely during four days in going through the performance. At last when exhausted, as one who had gone through a protracted labor, the catamenia, which had been suspended for years, appeared. In many other cases where insanity could not be said to exist, the delusion has been carried to the extent of imitating or pretending labor.

An analogous form of pseudocyesis occurs in young women who have secretly incurred the risk of pregnancy. Sexual and emotional excitement, and fear of consequences, have been attended by suppression of menstruation, enlargement of the abdomen, disorder of digestion involving nausea and flatulence, swelling and pain in the breasts. Imagination strengthened by fear does the rest. And occasionally the conviction of pregnancy persists, although the menstrual function is regularly performed. Similar symptoms may arise in single young women independently of sexual relations, as the result of mere disordered menstruation.

Again, a woman marries within the age when pregnancy is to be expected. A similar train of symptoms quickly follows. The strongest evidence on the other side is unwillingly received. The regular return of the catamenia, the stationary size of the abdomen, the absence of many subjective signs of pregnancy, the assurance of the physician that the decisive objective signs are also wanting, are held of little account. Here imagination is strengthened by hope. The doubting physician is himself doubted; and he must often be content to appeal to time, the great solver of mysteries.

The phenomena of pseudocyesis, however, most commonly occur at the climacteric epoch. And they are often very puzzling. Many things concur to put on the semblance of pregnancy. First, there is the probability of pregnancy. The social condition, the history, an existing family, a hitherto normal ovario-uterine life, the age not yet beyond the liability, all concur to strengthen the patient's belief. The irregularity or suspension of menstruation, the contemporaneous enlargement of the abdomen and breasts, all collected, make up an imposing aggregate of symptoms, easily accepted as decisive proof of that which is hoped or dreaded. To this array of symptoms, slight nausea and various nervous phenomena are frequently added. There is much that is real to lend color to the belief in pregnancy. Imagination supplies the missing links in the chain of evidence, and binds all signs, real and unreal, together into one whole, which is confidently affirmed to be beyond the possibility of dispute. So vivid indeed is the emotional and mental force, that it creates the symptoms which are wanting. The woman who has been pregnant before, calls upon her memory; and so keen is the edge set upon perception by fancy, that feelings counterfeiting those she really experienced in earlier years arise as it were at her bidding. And by a similar process, the woman who has never been pregnant, conjures up into seeming existence the signs which are suggested to her eager mind by hearsay or reading.

It will often appear cruel to break down the fond delusion, by explaining these ambiguous phenomena by another theory. But it must be done. About the age of fifty there is, as Gooch said, a torpid state of

the uterus, with a flatulent state of the intestines. The omentum and parietes of the abdomen often grow very fat, forming what Baillie called "a double chin in the belly." Wind and fat combine to form the tumor which simulates the gravid uterus. Air moving about in the bowels gives the sensation which is taken for the movements of the child. The enlargement of the breasts is also due to fat.

The *diagnosis* ceases to be puzzling when we carry out the proper physical exploration, that is, when we substitute scientific objective inquiry for the patient's description of her subjective sensations.

Obesity is rarely limited to the abdomen and breasts; it is seen in the limbs and face also. And it is an aphorism generally true, that when a woman is getting fat she is not pregnant. Although the breasts are large, they want the characteristic changes of pregnancy. The abdominal enlargement is felt to be doughy, yielding before firm pressure, nowhere giving the sensation of a defined firm globular tumor, and consequently not giving the peculiar feeling of a wavy or living impulse under the hand, which marks the peristaltic movement of the uterine wall, or the movements of the fœtus. Percuss, and where the pregnant uterus ought to be, you hear nothing but empty resonance. Auscultate, and you hear the rolling of confined air, borborygmi, instead of the foetal heart. Give chloroform, as Simpson recommended, and the "phantom-tumor" disappears; the relaxed abdominal walls allow the hands to sink freely down upon the spine and into the pelvis. There is nothing solid. All that is not fat has vanished into thin air. Examine by the vagina, the finger touches a hard os uteri, probably low down, and near the centre of the pelvis; not, as in pregnancy, soft, and directed backwards. There is no large solid mass in front of the cervix, but a small uterus, freely movable, which, under chloroform, and sometimes without, may be defined between the finger in the vagina, and the hand pressed in above the symphysis.

Although we may have proved the patient to be in error as to the existence of pregnancy, we must not hastily conclude that she requires no care. Her distress is often real. The nervous symptoms forming an element in the general climacteric disorder will be discussed in connection with this subject. I will only stop here to say that in many cases, a well-adapted abdominal belt will give great relief, by supporting the distended bowels, and the omentum and abdomen weighted with fat.

After the menopause, uterine diseases, especially of an inflammatory kind, are more rare, and are less active. The general character is rather that of passive congestion and catarrh. But the proneness to organic disease is increased.

The menstrual flow must also be regarded in the light of a safety-valve, whose function is to restore the equilibrium of the circulation. The uterine evacuation takes off the turgescence of the utero-ovarian system of vessels. If this be not done there will be determinations of blood, local hæmostases in places where there is no provision for throwing off the excess with safety. It is only mucous membranes having a convenient communication with the external surface, which can discharge blood with safety; and the uterine mucous membrane is pre-eminently fitted for this

purpose. By this evacuation vascular tension is relieved, and a great source of nervous irritation is removed.

In conjunction or not with the phenomena of pseudocycyesis, *disorders of the chylopoietic organs* are frequent. That the menstrual flow is an excretion performing to some extent a cleansing or depurating office, cannot be doubted. The manifest relief obtained from distressing symptoms on the appearance of the flow, so often felt, is evidence of this. When this excretion is suppressed, it is natural to infer that the system will feel the want of an accustomed depuratory channel. The liver, the kidneys, the skin will have more to do; and the consequent defective excretion is aggravated by want of exercise.

The difficult or imperfect action of the liver and kidneys is pretty sure to entail local stases in the circulation, and consequent disposition to loading of the heart and great vessels. Hence there is a disposition to *metrorrhagia*. This is sometimes so profuse as to induce a marked degree of anæmia. The hemorrhage may be alternated with serous offensive discharge, and the suspicion of cancer not unnaturally arises. The sallow skin and offensive discharge may be due to degradation of the blood and decomposition of matters retained in the vagina.

In a considerable number of cases a copious flooding seems to be, if not salutary, at any rate not injurious. I have seen aged women, in whom sudden profuse vaginal hemorrhage occurred without a trace of disease, recovery following. These cases seem strictly analogous to those of senile epistaxis, which call for plugging of the nostrils.

But in too many cases, disease of a serious character is the cause. Amongst these fibroid tumors and polypi may be found, and cancer is not uncommon.

The *nervous phenomena* are amongst the most important complications. *Hysteria* is frequent. The liability to emotional disturbance is often remarkably exaggerated. *Pseudocycyesis*, already described, belongs to the climacteric neuroses.

True *convulsions*, followed by a stage of semi-coma and delirium, sometimes occur. There may be only one attack; but generally there is a tendency to recurrence at more or less regular intervals. The immediate exciting cause is in some cases the habit of periodicity, stimulated or not by remains of ovarian activity. There seems to be a gradual accumulation of blood and nerve-force, which, when a certain tension is reached, breaks out in the way described. If it should happen that a discharge of blood takes place, the nervous phenomena are generally mitigated. The urine may show no trace of albumen.

These attacks are commonly followed by periods more or less prolonged, during which the cerebral functions are impaired. Perception rarely suffers so much as other faculties. Attention is commonly impaired. The patient finds it difficult to follow a conversation, or to keep up a continuous train of thought. Aphasia is a frequent phenomenon. Articulation may be impaired; but the main difficulty consists in finding the word that is wanted. The patient is quite conscious that she is using the wrong word, and tries by signs, or relies upon the knowledge or intuition of those whom she is addressing, to correct and fill up what she wants to express. The mind is essentially right; but the organ of expression is at fault.

The patient is at first stunned by the shock of the attack. Recovery is gradual, sometimes slow. Headache is a common symptom; pains in different parts of the body are felt: there is often a marked disposition to sleep. The want of rest is attested in many ways. She is easily exhausted by exertion, bodily or mental.

In some cases the phenomena may be described as *epileptoid* only. There is not complete loss of consciousness, but a degree of vertigo. The face becomes pale, cool; and irregular movements of the limbs are performed.

In another class the symptoms are *syncopal* in character. For some time there is almost complete loss of consciousness. At least in many cases there is no subsequent recollection of what occurred during the attack; nothing but a confused notion of the circumstances attending the beginning and the recovery from it. The patient may fall down, suffer injury, and yet be unaware of what has happened.

Associated with this kind of attack, and no doubt to a great extent accounting for it, there is often a weak condition of the heart. The organ is badly nourished, loaded with fat deposit, if not also degenerated in fibre; it is dilated, and incapable of acting efficiently under the call of sudden excitement or exertion.

I have already observed that apoplexy and eclampsia are more likely to happen at the climacteric period. But the cases are more frequent in which these diseases are simulated. Many women complain of a *partial hemiplegia*, chiefly of sensation. This is not always preceded by coma or convulsion; the mind is unaffected; the patient can walk nearly as well as usual, and without any perceptible dragging of one leg. She describes various subjective symptoms, as numbness, coldness, tingling in the arm and leg. No difference in temperature of the two sides can be detected.

With or without these apparent paralytic phenomena, there are frequent alternations of *flushes of the face, and chills*. These are apt to come on on the slightest fatigue or emotion, and constitute one of the most frequent conditions which harass women of a certain age. The flushes are often visible to others; the face red, becomes or even empurpled, and there is a feeling of giddiness or vertigo. These are no doubt the result of that extreme tendency to sudden aberrations of nerve-force and of blood-supply, so characteristic of the "change." It seems as if the equable distribution of health were replaced by irregular supplies sent in excess to particular organs, or vascular and nervous regions. I have several times known forms of climacteric disorder attributed to organic mischief of the nervous centres. The mimetic features of this disorder are extremely close and interesting, and may simulate almost all the described forms of nervous disease.

Lithiasis is especially apt to arise at this period, and may give rise to those attacks of excruciating agony characteristic of the irritation of gravel in the urinary track. These attacks must be distinguished from the pain which attends some forms of uterine disease.

Gall-stones also are apt to be troublesome under the same conditions. The loaded portal system, the sluggish liver perhaps undergoing some organic change, easily engender disorder. The gorged state of the por-

tal system and the pressure upon the kidneys, are shown in the turbid urine, loaded with lithates and phosphates, and occasionally containing albumen and biliary matter. Vomiting often attends this condition. Alkaline salines steadily administered offer the best means of relief.

The general character of climacteric nervous affections may be broadly expressed by saying that there is *disturbance* of the nervous functions, and not organic *disease*.

The *treatment of disorders of the menopause*.—The principle of dealing with these, flows from the observation of their natural history. Our care must be directed to counteract the sluggishness of the liver, and the imperfect action of the other digestive organs; to regulate the circulation and the secretions; and to guide aright as far as possible the nervous functions.

In the disorders attended by plethora, florid complexion, tendency to *embonpoint*, and convulsions, abstraction of eight or ten ounces of blood from the arm will often be of signal service. If this be considered too great an outrage upon the ex-sanguineous therapeutics of the present day, we may compromise the matter by applying four or six leeches to each temple or behind the ears. I have frequently seen the greatest benefit from cupping, taking by this means eight or ten ounces of blood from the nucha or between the shoulders.

The loss of a small quantity of blood will often act in the most remarkable manner. That I have seen lives saved by this practice, that conditions threatening cerebral congestion or apoplexy have been averted by it, I have no manner of doubt. I have seen women conducted over the greatest perils of the critical age by occasional leeching and cupping, combined with judicious medicinal and hygienic management. These abstractions of blood, small as they are, produce good results out of proportion to their quantity. They act as derivatives as well as evacuants. By taking off vascular tension, and diverting the current of the blood to the surface, they equalize the circulation, and free the central organs gorged with blood approaching to stagnation. They act, in short, as the most direct and effective substitute for the wanting menstrual bleeding.

The regulation of the secretions is best effected by occasional resort to alterative remedies, as blue pill with colocynth or aloes and belladonna; podophyllin; salines, of which the best is acetate of ammonia; a little colchicum is often of signal service. The habitual use of Pullna, Hunyadi, or Friedrichshall waters is often of great service. Gout, or a condition allied to it, is not an uncommon complication. Lithia is a useful addition to the saline. The skin should be kept in working order by exercise and baths, and often the addition of Vichy salts to the baths will be useful. The nervous centres are calmed and regulated by occasional sedatives, as the acetate of ammonia with Battley's solution, or chloral. A most valuable remedy is the bromide of potassium. This may be given in ten-grain doses or larger, two or three times a day for a considerable time, with occasional intermission, taking care to resume it whenever the nervous symptoms threaten to return.

To equalize the action of the heart and counteract local stases, salines are again of value, and their good effect is often enhanced by digitalis or aconite.

Where there is deficient tone, as is often the case, quinine and strychnine with mineral acids are indicated. Amongst other useful properties, these agents possess that of improving muscular tone, and thus of counteracting the sluggish condition of the intestinal canal.

The establishment of an issue in the back of the neck or on the arm, operates as a valuable derivative. I have known women kept free from nervous seizures so long as an issue was open, and be again subject to them when the issue was healed.

Attention to the diet is of the utmost importance. Many things which have come to be looked upon as necessaries, but which are really luxuries, must be given up, or taken with the strictest moderation. The food should consist of fish, meat, poultry, game, carefully but plainly cooked, bread, vegetables, and fruit. The allowance of meat should be restricted to one meal a day. Spirits generally should be avoided, port should be shunned absolutely, and sherry taken rarely; sparkling wines mixed with soda or seltzer, claret, carlowitz or hocks may be allowed to the extent of two or three glasses daily. Beer, as a rule, is unsuitable for climacteric women. All the nervous abnormalities, and the disposition to hemorrhages, are unfortunately liable to be seriously aggravated by the frequent resort to alcoholic stimulants. Patient and friends, excited or alarmed, are impelled to "do something." The habit of flying to the ready and tempting aid of the bottle is easily acquired; and then the ills of alcoholism being added to those already existing, a vicious circle of morbid reactions is set going, and gathers strength with every revolution. This observation applies with even greater force to the habitual use of chloral and chloroform. Sooner or later the nervous system is sure to break down under this inconsiderate practice.

Sometimes the troubles of the menopause subside gradually and entirely. But they rarely disappear altogether in less time than two or three years. The woman then seems to take a new lease of life. She resumes her physical and mental power. Sometimes, however, these troubles persist and merge into those which mark the period of decrepitude.

THE DISORDERS OF SENILITY OR DECREPITUDE.

As the ovaries and uterus pass into atrophy, and shrink, the woman may be said to become asexual. The economy is no longer dominated by the sexual apparatus. Some women continue to lay up fat, and in these the gastric troubles increase. Others emaciate, the fat is absorbed; and as the "padding" disappears, the pelvic organs, wanting their external support, tend to fall through. Hence the "senile prolapse," so prevalent amongst women who are compelled to lead laborious lives.

The atrophy of the uterus not seldom involves the obliteration of its cavity, or, more frequently, atresia at certain points of the canal. This closure is especially liable to happen at the os internum, and at the os externum. This last condition is not at all uncommon. The vaginal-portion shrinks away; the os contracts to a point, sometimes closing altogether (see Fig. 14, p. 42). The vagina also undergoes a kind of atrophy; the roof is contracted, and gives to the examining finger the

sensation of a funnel-shaped *cul-de-sac*, in the centre of which the small dimple-like os uteri is felt. The mucous membrane is often pale; the glands have in great part disappeared or undergone degeneration. The tissues have lost elasticity.

The uterine mucous membrane is now liable to what may be called senile catarrh. There is a chronic secretion of mucus, which, when moderate in quantity, and not impeded in excretion, may entail little distress. But it not infrequently happens that through the atrophic atresia of the os externum, the mucus secreted in the uterine cavity is retained. In this case, colic and other consequences similar to those which characterize retention of menstrual secretion, arise. The remedy is similar. It consists in dilating the closed os by incision or by tents. Then, astringents can be applied to the uterine cavity.

This chronic senile catarrh is very often a continuation of catarrh which began at an earlier period. The discharge is sometimes mucopurulent. In this case there is often some persistent hypertrophy of the vaginal-portion. The margin of the os uteri commonly shows a ring of intense red color. This, says Whitehead, is a sure sign of endometritis.

We have already, when studying the climacteric condition, referred to the "senile hemorrhages." There are various troublesome affections of the skin which appear at, and after the climacteric period. Alibert observed many skin-eruptions only twice during life, that is, before the appearance of menstruation, and after its cessation. The predisposing cause appears to reside in the unhealthy state of the blood and nervous system, which underlies so many of the climacteric troubles. Amongst other evidences of this we see a greater disposition to gout, rheumatism, and neuralgia. A transient form of erysipelas is not uncommon. These will be discussed under "Diseases of the Vagina and Vulva."

CHAPTER X.

THE RELATIONS OF MENSTRUATION TO VARIOUS DISEASES— THE INFLUENCES OF OVULATION AND MENSTRUATION IN EVOKING MORBID INFLUENCES.

In discussing this subject it would be convenient to consider, first, the influence of disease in other organs or in the system generally, upon the function of menstruation; and secondly, the influence of ovulation and menstruation in producing diseased action in other organs, or in the system at large. In a considerable number of cases this could be done. But there are other cases in which the action and reaction are so close,

that it is scarcely possible to get at the first factor. So we are compelled by clinical necessity to study some cases from both sides, that is, to observe the reciprocal influences of ovulation, and menstruation, and diseased actions.

In some diseases, menstruation is diminished or altogether arrested. This is especially the case in chronic wasting diseases which induce degradation of the blood. Phthisis is a marked example of this kind. Ovulation, indeed, is not arrested, but the ordinary menstrual discharge gradually diminishes, and generally ceases altogether. This is partly due to the waste of red-corpuscles; partly to the diminished force of the circulation; partly to the morbid process causing derivation of blood away from the uterus; and partly from impaired nutrition of the ovaries. Louis observed that cessation of the menses was seldom delayed beyond the onset of the tubercular hectic. Acute lung-inflammations do not entail much interference, menstruation usually appearing notwithstanding. In the great majority of affections of the spinal cord, menstruation is not suspended.

When menstruation makes its appearance in the course of a disease, especially in fevers, it has been looked upon as critical, and as exercising a favorable influence. There is little evidence of the truth of this theory. Perhaps the case is, that when the disease is going on favorably, there is more probability of menstruation being restored. At the same time a useful indication may sometimes be drawn from the manifest relief which follows the appearance of the menstrual flow in many morbid conditions, to solicit or promote the flow or to establish an equivalent for it, by a topical or general bleeding.

In exanthematous fevers, as smallpox, scarlatina, measles, or typhoid, sanguineous discharge occasionally takes place from the vagina. Sometimes this is undoubtedly menstrual. But in most instances it is to be regarded in the same light as the other hemorrhages which occur under similar circumstances. These fevers, especially smallpox and typhoid, induce a state of blood favorable to extravasation from mucous membranes and skin. The utero-vaginal tract is of course likely to be the seat of this effusion; and if menstruation be impending, the flow will probably be profuse. Under these circumstances, blood may flow back from the Fallopian tubes, and escape into the peritoneum, constituting retro-uterine hæmatocele.

We have another example of hemorrhage from the genital tract in "malignant jaundice," or "acute yellow atrophy of the liver." Here, also, there is no special tendency to metrorrhagia. The genital hemorrhage is simply the result of a general alteration of the blood which disposes it to exude from all the mucous membranes.

As this subject has not attracted the attention it deserves, I am happy to have the opportunity of embodying the results of extensive observation and inquiry, kindly made, at my request, by Dr. Clapton. *Phthisis*, he says, in nearly every case stops menstruation; in the majority, abruptly, but sometimes after gradual diminution. Not uncommonly phthisis appears to be developed in consequence of emansio mensium, but in almost all these instances there is evidence of scrofulous diathesis. In *Scrofula*, there is great irregularity as to time, quantity, and character.