Notes on some of the Disorders of Menstruation. By F. Churchill, M. D. Physician to the Western Lying-in Hospital, and to the Wellesley Female Institution, Lecturer on Midwifery, with Diseases of Women and Children, in the Richmond School of Medicine, Dublin.

It is not my intention to enter into much detail on the general history of these disorders, which have been fully and ably treated by various authors, but merely to offer a few observations on some varieties, which they appear to have somewhat overlooked; and although, for the sake of distinctness, I shall adopt the usual division into *amenorrhœa*, *dysmenorrhœa* and *menorrhagia*, I would premise, that in practice so nice a distinction is by no means always admissible. There frequently seem cases which, so far as amount of pain is concerned, belong to

the second class, but in which the scantiness of the secretion would seem to place in the first. In like manner *menorrhagia* is often attended by very acute suffering both previous to and during the secretion. Attentive observation will obviate the danger of any mistake arising from these complications. A much more probable source of error in our investigations arises from the delicate nature of the subject. Both parties are anxious to pass it by with the least possible detail, and frequently an assertion of *regularity* is made when further inquiry would detect *irregularity* in all the circumstances, except, perhaps, in the periodical appearance of the discharge. It should never be forgotten, that variations in the quality and quantity of the excretion are as important, and require as much attention as any other peculiarity.

I. *Amenorrhœa* has usually been divided into two species,—true *amenorrhœa*, when the menses have not as yet appeared, and *amenorrhœa suppressa* when, having appeared more or less regularly, they are suddenly arrested. As to the period in the first species when the absence of the excretion may be considered a morbid condition, it varies not only in different countries, but very much in our own also. Although many cases present themselves of menstruation at 12, yet, speaking generally, it occurs most frequently between the ages of 14 and 18, or it may be delayed until the age of 20, without any appreciable morbid cause. Our judgment, in fact, must be formed upon a careful estimate of the developement of other organs and their functions, with the state of the uterine system.

The first appearance of the *menses* is looked for with great anxiety by all females, from a popular prejudice that this is of far greater importance than their subsequent recurrence. Writers on this subject seem generally disposed to take the opposite side of the question, and to regard with too little care the establishment of this function. This has led them to overlook an occurrence which frequently takes place, and has often given rise to an error in practice. About the age when menstruation should occur, we repeatedly observe all the symptoms which usually accompany it, such as languor, headach, weight and aching about the loins; yet the courses do not appear, and this may continue some months. But if we inquire more minutely we shall find that the *uterus* at these times is not inactive, but that, instead of excreting a red fluid, a white fluid is discharged. Now if this be overlooked we shall probably, if the general developement seem to justify it, proceed to act upon the *uterus* by its proper stimulants, or upon the constitution generally, as in true *amenorrhœa*. The cases are, however, very different. In the latter the *uterus* is quiescent; whilst in the former it is not only disposed

to fulfil its proper function, but is actually in a state of activity, although, from some cause or other, yielding a morbid product instead of a healthy one, and the treatment of each must be different accordingly. This discharge of whites preceding the eruption of the menses may occur but once or twice before that function is fully established, or it may continue for a long time at regular monthly periods, with perfect intervals between each. This, however, is rather rare. It is more common in these latter cases to have more or less of the *uterine leucorrhœa* during the intervals. In the former cases it may be regarded as merely vicarious of the menses, but in the latter it indicates a morbid condition of the *uterus* or of its lining membrane, and becomes in its turn a cause of *amenorrhœa*. The symptoms in the former case are very slight, scarcely differing at all from those which accompany the usual periodical discharge, whilst in the latter they are much more severe, and the constitution soon sympathizes with the local disorder. There is constant weakness of the loins, with occasional pain in the side or chest, frequent headachs, loss of appetite, irregularity of bowels, paleness or sullenness of complexion, languor, and indisposition to exertion, &c.—the symptoms, in short, of uterine *amenorrhœa*. In all cases of *amenorrhœa* of the first species, then, we should be careful to ascertain, not merely that the red discharge has not appeared, but that there is no uterine excretion at all, before we treat the patient in the manner usually recommended.

Again, in *amenorrhœa suppressa*, we often find the patient's health unaffected for some months,—none of the secondary symptoms which usually follow a sudden arrest of that excretion having followed. In these cases likewise a discharge of whites usually takes the place of the healthy product, causing little apparent detriment so long as it is periodical, and does not continue during the intervals. When the uterine *leucorrhœa* is persistent, then we shall have the usual symptoms sooner or later, and all our efforts to restore the healthy functions of the womb will be fruitless, until this disease is cured. There are some cases which occupy a middle place between the two classes just described. The patient commences menstruation probably about the usual period, and after going on regularly for a year or two, finds the quantity diminished occasionally, and without any apparent cause. After this has occurred two or three times, she first perceives that, although the red discharge has ceased, yet a white fluid continues to flow for some time. By-and-bye she observes this make its appearance a day or two *previous* to the catamenial discharge, which perhaps becomes somewhat irregular as to time. This state of matters may go on for some time, the patient becoming gradually more delicate in health, losing her appetite and strength, and becom-

ing low-spirited, until the *catamenia* miss a period altogether, their place being supplied by a discharge of whites to about the same amount. After this, she will sometimes menstruate properly; at others the uterine *leucorrhœa* will appear until the latter discharge becomes completely vicarious of the former, and often persists during the interval also. If we examine this patient we find her with the appearance of incipient *phthisis* or *chlorosis*. Her appetite is fastidious or nearly gone, she complains of great languor and indisposition to exertion; the flesh is soft and flabby; the skin sallow, loose and moist; the tongue probably clean; the bowels generally confined; the pulse about the natural frequency, but small and compressible, with occasional severe attacks of headach, constant aching in the lower part of the back, and pain in the left side.

The *pathology* of these varieties of *amenorrhœa* is somewhat obscure. The uterine *leucorrhœa* may arise from deficient secretive power, or from want of materials for elimination; it may be a morbid secretion, or the result of appreciable chronic inflammation of the lining membrane of the *uterus*. The age of the patient, her previous history as to menstruation, and the general symptoms, will be our best guides to a decision of the question. The causes are very various; sedentary occupations, deficient food, cold taken during menstruation, abortion and excessive coition, have each apparently given rise to it. Mental anxiety and distress always increase it, and sometimes seem to have some share in its production. I have frequently seen cases of flooding or puerperal fever after delivery, in which the *menses* have been absent some months subsequently.

Some of the organic diseases of the *uterus* which do not affect the lining membrane interfere with this function. *Amenorhœa* gradually supervened in two cases of fibrous tumour of the *fundus* which I had under my care.

Several of the secondary symptoms and diseases consequent upon the arrest of the menses are deserving of a brief notice. The action of the heart is often considerably disturbed. Irregularity of action and violent palpitation recurring at intervals, and disappearing with the removal of the cause, is probably the most common form. My friend Dr Greene, whose accuracy of diagnosis is well known, has mentioned to me several cases in which he heard well-marked *bruit de soufflet*, without a trace of organic disease, or of any cause but this one of *amenorrhœa*, and which ceased as soon as menstruation was restored. Effusion into the abdominal cavity may often be observed to follow suppression of the menses, and sometimes general anasarca. In some of these cases uterine *leucorrhœa* is present, in others absent. Absorption of the fluid takes place when the catamenia reappear.

Treatment.—As far as my experience goes, I have found those cases of *amenorrhœa* which are complicated with uterine *leucorrhœa* more manageable than the more simple ones, and for this reason, that in most of them the *amenorrhœa* is consecutive to the *leucorrhœa*, *i. e.* the state of the lining membrane of the *uterus* which gives rise to the latter is also the cause of the absence of the menses, and, therefore, in many cases, the cure of the "whites" is followed by menstruation without further interference. This observation does not apply, however, to those of the first class I have noticed, where there is no evidence of morbid action. In these cases there is, in fact, a right acting on the part of the *uterus*, but the "materiel" for elimination being deficient, the product is different.

And it is to this point that our attention must be directed,—in other words, the treatment must be mainly constitutional. Some tonic medicine may be given; one of the bitter infusions, or a preparation of iron suited to the state of the stomach, and repeated as often as the condition of the patient may demand. The diet should be nutritious but not stimulating. Purgative medicine will occasionally be necessary, and I have found aloes in combination with rhubarb the most efficient. Air and exercise are absolutely necessary, but care should be taken to avoid fatigue. A hip-bath or pediluvium should be used every night at the approach of the menstrual period. In some cases sea-bathing has been found beneficial during the interval.

These means have rarely failed me, and I have always found that, in proportion as I succeeded in invigorating the constitution, menstruation occurred and returned with more or less regularity. The patient, however, will be liable to miss a period occasionally. In the other cases where the "whites" are not merely vicarious of the menses, but continue through the interval, the treatment must be very different. They are in fact cases of uterine *leucorrhœa*, and must be treated as such. A blister should be applied to the *sacrum*, and repeated after some time. Balsam of copaiba, decoction of logwood, and pills composed of sulphate of iron gr. $\frac{1}{2}$. blue pill gr. ii., and the compound rhubarb pill gr. iii., have all answered the purpose. Powdered colchicum seeds were recommended in a recent number of the American Journal of Medical Science. I prescribed them in one case, but without benefit. Should the local distress be great vaginal injections of warm water will be found useful. Tonic medicines may be given, and the bowels must be kept free. Country air is desirable; but exercise, unless taken very cautiously, will be found injurious; it almost always increases the uterine discharge. When the *leucorrhœa* has ceased, spunging the lower part of the body with cold water is decidedly be-

neficial. These means will generally be successful, but the patient will require great care at the next menstrual period, and we are not to be satisfied until "whites" neither precede nor follow the catamenia.

II. *Dysmenorrhœa.*—The distinctive mark of this disease is the severe pain occurring at each monthly period, and not the nature or quantity of the discharge, which may either be scanty, profuse, or to the usual amount. The character of the pain and the accompanying symptoms vary according to the constitution of the patient, and other circumstances, and the treatment required is often very different. For this reason I have been in the habit in my lectures of dividing the majority of cases into two classes, 1. the Neuralgic, and 2. the Inflammatory, without, however, denying that there are many instances which are not included, and some others which appear to border upon both. Neither do I intend to convey the impression, that there is no local change in the first species. It is true that the *os uteri* is enlarged by the afflux of blood during the flow of the menses, but by no means so much as in the second species, and the constitutional irritation in each differs still more considerably.

1. *Neuralgic Dysmenorrhœa* may attack females of all ages, but it is more generally seen after 35 than before. I have observed it more frequently in unmarried women, or in married women who have not born children, than in others. It is almost confined to those of a nervous temperament, and of a thin delicate habit. The monthly paroxysm presents all the characteristics of *neuralgia*. For a day or so previously there is a sense of general uneasiness, a feeling of cold, or, as a patient complained to me, the very bones of the extremities feel icy-cold. Headach may precede the appearance of the menses or succeed it; and I think the latter more frequent. The pain commences in the region of the sacrum, and extends round to the lower belly and down the thighs. In some cases it appears to come on in regular paroxysms with intervals of rest, in others it is constant. The amount of suffering of course varies much, and sometimes it is so acute as to occasion syncope, and to oblige the patient to keep her bed. In others it is confined to the few hours preceding and following the eruption of the catamenia. During the attack the pulse is not accelerated, and there is no feverishness, and subsequently the patient seems less reduced than one would naturally expect. The menses are generally scanty, and are very often altered in quantity, or mixed with small clots of blood. The membrane of plastic lymph described by Denman and succeeding writers is occasionally discharged; but I am unable to say whether it is more frequent in this species than in the next.

The attack varies in duration from twenty-four hours to four days; its acuteness then diminishes, and if not succeeded by severe sick headach, (as it invariably is in one patient of mine,) it rapidly passes over, and the patient resumes her usual routine of employment. Very little disturbance of the other functions is observed. The bowels are regular, and in some the appetite is scarcely affected.

2. *Inflammatory Dysmenorrhœa* differs widely from the species just described in the subjects of it, and in its symptoms. It occurs in females of a full habit and of a sanguine temperament, and generally at an earlier age. Unmarried women are especially liable to it, and married women who have had children also. Few precursory symptoms announce the attack; a degree of restlessness and feverishness, with rigor, and flushing, and probably a headach, precede the *catamenia* a few hours. For some hours after their appearance, the suffering is very acute, the patient complains of pain in the back, aching of the limbs, weariness, headach, intolerance of light and sound, the face is flushed, the skin hot, and the pulse full, bounding and quick, often upwards of 100. This state of things is not of very long continuance. All the symptoms are mitigated when the discharge is fully established, though the period at which this takes place varies much.

Should the fever run high, delirium sometimes comes on for a short time.

Uterine leucorrhœa is not unfrequently observed during the intervals, whereas in the former species I have scarcely ever met with it, at least to any extent.

The attack may recur with each menstrual period, but it does not persist so regularly as the former species, nor does it (at least when not very severe) as often prove an impediment to conception.

Pathology and Causes.—From an attentive observation and consideration of these cases, I have been led to the belief, that, in the first species, the disease is of a simple neuralgic character. We have no evidence of any inflammatory process going on; the pulse is feeble, and not quickened; the skin is cool, and the pain often recurs in paroxysms; whereas in the second species, the headach, flushed face, heat of skin, restlessness, and quick full pulse, all point to some inflammatory action. If we add to this the relief obtained in these cases by very opposite remedies, but little doubt will remain.

My friend Dr Mackintosh, in his Practice of Physic, has pointed out a morbid state of the *cervix*, as a not unfrequent cause of *dysmenorrhœa*. In a number of cases he discovered well-marked narrowing of the passage through the *cervix*, and his pa-

tients experienced great relief from dilatation by bougies. He does not, however, mention any symptom which clearly indicates that the suffering was caused by retention or difficult transmission of the menses, and it appears rather questionable whether the relief may not have arisen from the direct stimulation of the organ by the bougie. I am far from denying the existence of stricture, or that it might possibly cause pain in menstruating; but as I have found it absent in many severe cases, and in one in which I discovered and dilated it, no benefit was experienced, I am compelled to believe that it does not form a very important circumstance in the pathology of this disease.

Treatment.—I have already said that the treatment differs for the two species, and I may add, that the success of our remedies varies as much. The neuralgic variety often proves extremely obstinate, resisting every means we use, and persisting in spite of the best directed efforts even for years. Whereas it is not difficult to alleviate the attacks of inflammatory *Dysmenorrhœa*, if we cannot prevent their recurrence. Narcotics of course are the principal remedies against the former. Opium in grain doses may be given every second hour, commencing with the first sensation of pain in the back, and continued until relief be obtained. Camphor may be advantageously combined with it. If we fear the effects of opium upon the head, hyoscyamus or some of the preparations of morphia may be preferred. I have found more benefit, however, in severe cases, from opiate *enemata*, than from any other mode of exhibiting it, and in several cases the mitigation of the pain was immediately followed by increase of the *catamenia*. In one case, where all other remedies had failed, I ordered five grain doses of the ergot of rye to be taken three times a-day for two days previous to that on which the *menses* were expected to appear, and with decided benefit. The discharge was much increased in quantity, and little or no pain accompanied its excretion.

Warm drinks should be ordered, such as whey, thin gruel, or even a little port-wine negus.

I have found benefit also from the use of pediluvia at bed-time, one or two nights preceding menstruation.

The first indication in well-marked cases of inflammatory *Dysmenorrhœa* is very clear. With the full quick pulse, hot skin, flushed face and headach, there can be little hesitation in taking twelve or sixteen ounces of blood from the arm. Should the condition of the patient forbid general blood-letting, leeches should be substituted. The bowels should be freed by saline purgatives, and febrifuge medicines, with cooling drinks, exhibited. These means will generally suffice to relieve the promi-

nent symptoms, and if any pain remains, a dose of calomel and opium at bed-time will probably relieve it.

I have tried tartar emetic, but I cannot say with any benefit.

But in this species our treatment is not confined to the menstrual period. During the interval the patient should take a good deal of exercise, and be much in the open air. Walking is preferable to riding or driving.

Brisk purgatives should be regularly administered, and on the approach of the monthly period, if symptoms of great excitement are observed, it will be well to take away a small quantity of blood.

By a steady and judicious use of these means, we shall rarely fail in mitigating the sufferings of our patient.

III. *Menorrhagia.*—This term is used by many writers to signify merely an increase in the menstrual evacuation; others include in it as well any discharge of blood or clots which may accompany or succeed the catamenia. This latter definition has been adopted by Dr Locock, in the article on this subject in the Cyclopedia of Practical Medicine, and it is probably the best, as avoiding undue multiplication of names, and leaving the term uterine hemorrhage to be applied exclusively to flooding, connected with pregnancy and parturition.

I have had occasion to notice three forms of the disease. In the first the discharge is natural, but the quantity or frequency of recurrence is greatly increased. In the second the discharge is large, and occasionally mixed with clots of blood. An examination of the *uterus* reveals no change in the condition of *cervix* or body. In the third there is a considerable loss of blood, with a marked change in the size and position of the *uterus*. As to the first variety, it occasionally sets in with a sudden and violent gush from the *vagina*, after which it stops for some hours and then recurs, and this alternation may continue during the usual period of menstruation. Sometimes the discharge goes on regularly, but lasts for ten days or a fortnight, or even three weeks; or the discharge being not unusual in quantity, it may return every two or three weeks; and this variety I have seen in very young unmarried females, as well as in those whose uterine system has been in a state of greater activity. It is probably more common than any I have noticed. It is also, more frequently than any of the others, connected with that state of the lining membrane which gives rise to uterine *leucorrhœa*, which occupies the interval between the two periods. In some cases, indeed, the *leucorrhœa* has been very evidently the cause of the *menorrhagia*, and when it succeeds the latter, it has always appeared to augment the severity of the attack. In the cases where the *menorrhagia* is constant, it will generally be found on in-

quiry that, at an earlier period, the patient was much subject to "whites."

The general *symptoms* are exactly what we might expect from the continuance of a debilitating discharge. Exhaustion, languor, and dislike of exertion, weakness across the loins and hips, paleness of the countenance and occasional headach, occur in the slighter cases, and at an early period. If the disease be not relieved, and especially if uterine *leucorrhœa* be present, all these symptoms assume greater severity. The exhaustion and languor increase; the face becomes sallow; an aching pain is felt across the loins, extending round the lower part of the *abdomen;* pain in the left side; repeated and severe headach; derangement of the stomach and bowels; in short, a complete derangement of the general health ensues. Nothing is discovered by internal examination: there is neither unnatural swelling of the *cervix* nor increase of heat; the *os uteri* is slightly open, but there is no tenderness. Among the more general causes of this disease, frequent child-bearing and over-suckling are perhaps the more frequent. The latter is often carried to a great extent amongst the poor, to prevent the too rapid increase of families, which it does most effectually when it gives rise to this disorder, but at the expence of much suffering and loss of health to the mother. In some cases it has been attributed to excessive flooding after child-birth, and in one patient of mine, where this was the case, the catamenia have ever since returned regularly every three weeks. Excessive coition sometimes causes, and always aggravates this disorder. Cold, over-exertion, mental emotion, &c. will also occasionally produce it.

In the severer cases, conception of course cannot take place; but I have repeatedly witnessed the contrary in the milder forms. It may or may not return afterwards. Its duration is very variable; the milder cases often get well spontaneously, and the severer may generally be cured by suitable treatment, although they are sometimes tedious.

There is nothing to excite the suspicion of any organic change in the womb, and therefore I suppose it must be regarded as a functional disorder merely. I have never seen in these cases any approach to the severer forms, which I shall describe presently.

Treatment.—Our first endeavour must be to remove the cause if possible. If it proceed from over-suckling, the child should be immediately weaned, and the patient should live, for some time at least, *absque marito.*

If the menses are too copious, a large dose of opium will sometimes reduce them to their proper quantity. Acetate of lead has sometimes been useful in combination with opium. Should these fail, ergot of rye may be given in small doses.

But in these cases, and in those where the menses recur in natural quantity, but too frequently, the period for the most effective employment of remedies is during the interval. A blister should be applied to the *sacrum*, and either be kept open or renewed. Vaginal injections of cold water, or a solution of the acetate of lead, will be found very useful. Tonics should be given; and of these some of the preparations of iron have appeared to me the most useful. The diet should be generous but not stimulating, and wine in moderate quantity may be allowed. An error in dress is generally committed by persons labouring under this affection. From the chilliness they feel, they are apt to clothe themselves too warmly, especially about the loins and hips, and this almost always increases the discharge. Sponging the loins and lower parts of the body with cold salt water has been employed with excellent effect; it removes the distressing weakness of the loins, and the general lassitude, and seconds most powerfully the more direct remedies.

The second form differs from the former in the more or less copious discharge of clots of blood, along with the proper secretion.

It rarely occurs in young or unmarried females, and I have scarcely seen it under the age of thirty. The subjects of it are generally delicate women of the leucophlegmatic temperament, whose constitution has been injured by disease or frequent childbearing. The disorder appears gradual in its progress; one or two small clots appearing at first and almost unnoticed by the patient; then perhaps an intermission and a return in increased quantity. After it has persisted for some time, the loss of blood is often very considerable, even sufficient to cause fainting. The effects are similar to those observed from the continuance of the first form, but much more severe. The pulse is feeble, but not quickened; the strength greatly exhausted; the back aching, and so weak, that the upright position or walking is very distressing; the countenance is colourless, and the patient is very liable to local congestions, resulting from the unequal balance of the circulation. A vaginal examination throws no light upon the nature of the disease. The *os uteri* is found rather more open than natural; but its lips are not thickened, nor are the cervix and body enlarged; no increase of heat is observed.

The disorder is almost always complicated with uterine *leucorrhœa*.

The *causes* of this variety are nearly the same as those producing the former species, and therefore I need not dwell upon them, but the pathology is evidently different. It is impossible not to regard it as dependent chiefly on a congestion of the vessels of the *uterus*, although the degree is too slight to be de-

tected by internal examination. It is probable, I think, that it may be the commencement of the third form. At present, however, I cannot speak positively about it.

The treatment does not differ materially from the last described. Opium, lead, or the ergot internally at the time of the attack, with counter-irritation, the *douche* to the back, cold sponging externally, with cold vaginal injections, constitute our main resources. Large doses of dilute sulphuric acid in infusion of roses, decoction of logwood, with vegetable or mineral tonics, are often very useful. The patient should be kept extremely quiet during an attack, and if exercise be taken during the interval, it should be in a carriage. The diet should be moderate in quantity but nutritious, and wine may be allowed. The stomach and bowels will require to be regulated by suitable medicines.

All possible causes, and every thing likely to aggravate the complaint, must be excluded with the utmost rigour.

The *third form* differs considerably from the other two. The discharge is more profuse and its effects much more severe; it is accompanied by decided alterations in the condition and relations of the *uterus*, occurs at a later period, and is more difficult to cure. As I know of no accurate description of it in any book, I must draw upon the cases I have seen for my description, subject to the deficiencies consequent upon so limited a source of information. I have sufficiently accurate records of about twelve of these cases, and from them I shall endeavour to complete my sketch. The attack is not confined to any one kind of constitution or temperament; it occurs in the plethoric and in the debilitated, in the melancholic as well as in the sanguine. I have never seen it in a patient under forty years of age, nor after the cessation of the catamenia. The attack is preceded for some time by irregularity of the menses, both as to time, quantity, and the duration of each period, with occasional uterine leucorrhœa during the intervals. After the *menses* have continued naturally for about twenty-four hours, the shedding comes on. Large clots are expelled, and the fluid discharge is vastly increased in quantity. At first the attack lasted seven or ten days only, but after a while it occasionally continued through the whole interval, and terminated only after the next period, either gradually or suddenly. In one patient the discharge was so considerable as to excite fears for her life. The recumbent posture had no effect upon the discharge, as much flowed during the night as during the day, but any exertion or long standing never failed to increase it.

During the attack the patients complained of excessive exhaustion, of a sense of weight in the *pelvis*, of a dull pain occasionally, and of weakness of the loins. Almost all ex-

perienced difficulty of passing water, especially after standing long, and some were obliged to lie down before they were able to do so.

The general health of course suffered considerably, the appetite diminished, the tongue was clean but of a pale colour, the bowels became constipated, the surface blanched, and the strength reduced. The pulse was quiet, though enfeebled in proportion to the loss of blood.

On making an internal examination, the *os uteri* was found somewhat lower in the *pelvis*, and directed more towards the sacrum than naturally. It was more open than usual in a healthy subject, and the cervix more or less swollen, especially anteriorly, where it expands into the body. The body itself was enlarged and much more so anteriorly than posteriorly It appeared tilted forward by the increased weight, so as to press upon the bladder. No increase of heat was observed in the vagina or about the cervix. The cervix and body of the *uterus* were slightly tender on pressure. On withdrawing the finger it was covered with a sanguinolent discharge, somewhat more fluid than blood, and devoid of smell.

The amount of these changes of course varied in different cases,—in some the cervix appeared the part principally affected, whilst in others the body as far as the finger could reach felt greatly swollen. The discharge appeared to be in proportion to the degree of congestion. The slight anteversion of the *uterus* detected on examination *per vaginam* explains very satisfactorily one symptom of which all without exception have complained, viz. the dysuria after long standing resulting from the pressure of the swollen *uterus* upon the bladder.

The duration of the disorder varies very much. It may disappear spontaneously, or, from the remedies employed, after three or four months, or it may continue for two or three years. In these latter cases, however, I always found that there had been periods of freedom from the disease.

A recurrence of the disorder after an apparent cure is by no means uncommon, so that the patient requires to be watched during one or two succeeding monthly periods.

Pathology.—If we consider the time at which these attacks occur,—a period at which there is always an accumulation of blood in the *uterus* for the performance of its healthy function; if we notice also the slow progress and subacute character of the symptoms, with the peculiar terminations of this disorder, and collate these with the results of a vaginal examination; we may fairly conclude, that the disease is rather of a passive than active character; that it is in fact a congested state of the uterine vessels; and that the discharge is the result, not of secretion, but of the rupture of some of the vascular twigs which ramify on the lin-

ing membrane. I have not been able to detect any special cause unless we estimate the peculiar age at which it occurs as such.

There is one point of view in which this form of menorrhagia possesses great interest. When we recollect that the age at which alone it has been observed, is also about the period when many organic diseases of the *uterus* commence, we are tempted to ask whether it may not be the precursor of those more serious affections? It appears very probable that repeated congestions may leave the *uterus* predisposed to them, and if this connection be established, this class of disorder must be regarded of far more consequence than their intrinsic importance would lead us to suppose.

The *diagnosis* of this affection is not difficult. Our suspicions will first be excited by the admixture of blood with the menstrual discharge,—its persistence after the normal period for that secretion has expired, and the peculiarity in the evacuation of urine. All doubt will at once be removed by a vaginal examination.

It may be distinguished, 1. From inflammation of the *uterus*, by the absence of increased heat, the slight degree of pain and tenderness, the occasional recurrence and subsidence of the attack, and the natural, or almost natural, state of the tongue and pulse.

2. Non-enlargement of the organ from morbid deposition, by the hemorrhagic tendency without ulceration, and by the subsidence of the swelling.

3. The hemorrhage attendant on corroding ulcer or cancer comes on irregularly. It may be at the menstrual period or during the interval; but when it occurs before the cessation of the menses, it appears to be quite unconnected with that function; besides much more pain is experienced in these diseases than in the form of menorrhagia I have described, and the ulceration detected on examination decides the question.

4. A vaginal examination will prevent our confounding it with the hemorrhagies arising from cauliflower excrescence and polypus of the neck of the *os uteri*, but there may be some difficulty in a case of polypus of the *fundus*, which has not been expelled through the *os uteri*. The data for our guidance are principally the results of a careful internal examination; the concurrence of the shedding with the menstrual periods; the reduction in size of the *uterus* during the intervals of the attacks, and the effects of remedies.

Prognosis.—Of all the cases I have seen none have proved fatal; and though some have proved tedious, yet all were ultimately relieved. One of the first signs of improvement is the cessation of the uterine *leucorrhœa* during the interval; the subsidence of the *uterus*, and the diminution of the tenderness.

Treatment.—Although the complaint appears simple, the attempt to restrain the hemorrhage during the attack is often unsuccessful. I found acetate of lead in large doses and opium ineffectual. Cold to the *vulva* and *enemata* of cold water were equally powerless. Plugging the vagina arrested the discharge for the time, but the irritation it excited prevented the subsidence of the disease. Leeches to the *vulva* had no effect upon it, and preparations of iron did little or no good. The only remedy, in short, that appears to have the power of controlling the disease during the menstrual period is the ergot of rye. It may be given in doses of from five to ten grains, twice or thrice a-day: I think it is less liable to produce the ill effects which sometimes results from its exhibition in divided doses, than when a larger quantity is given at once.

Absolute rest is requisite. The patient should be placed on a hard bed, lightly covered with bed-clothes. After the shedding has been arrested a blister may be applied to the *sacrum*. Should the discharge persist during the interval, in spite of our exertions we shall often be more successful at the termination of the next monthly period, at which time I have already said that the disease often subsides spontaneously. But if we succeed in arresting the hemorrhage, our task is only half accomplished, as it is during the period of quiescence that we must so act upon the *uterus* as to prevent a recurrence.

Counter-irritation should be maintained; vaginal injections of cold water, or a solution of the acetate of lead, should be used twice a-day; rest should be strictly enjoined. Tonics, mineral or vegetable, may be given, and the bowels kept free. Cupping the loins is useful in the severer cases. The diet should be liberal and nutritious, and wine may be allowed. Very little exertion should be made, until the next period has passed safely over. The patient may then take moderate exercise. The vaginal injections ought to be continued for some time, and when they are omitted, the back and lower parts of the body should be sponged with cold water twice a-day. I need hardly add, that great care should be taken to remove all possible causes of the disease.

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