



HIPOCRATES IN TEMPLO ASCULAPII TABULAS VOTIVAS EXSCRIBENS.

VOL. VIII.]

WEDNESDAY, AUGUST 7, 1833.

[NO. 26.]

REMARKS ON DYSMENORRHOEA.

Remarks on Dysmenorrhœa, being an Essay read to the Glasgow Medical Society, 2d October, 1832. By JAMES WILSON, Surgeon, Lecturer on Midwifery, &c. &c.

THE human uterus, whether we view it as an object of natural history or as a subject of medical inquiry, is a singular organ. Its various functions may be said to have a twofold bearing. Most of its operations have a reference to the production of new beings, and not to the welfare or continuance of that body of which it forms a part. So prominent, indeed, are its generative functions, that it may be questioned whether it has any that serve exclusively a personal purpose, or that minister solely to the well-being of its own individual body.

However the question of general or individual utility may be settled, it is not our object here further to inquire; but this we are sure of, when any derangements take place in these functions, particularly in menstruation, those derangements always occasion, or are accompanied with, considerable constitutional disorder.

In what follows, it is proposed shortly to consider painful menstruation, and this is done as much for the sake of getting information how to remedy this frequent and very distressing malady, as to offer anything very certain or conclusive on the subject.

The examination of the different theories of menstruation comes not within the sphere of this essay. There are, however, two views of that process which may be shortly stated, for the purpose of making some of the following observations more explicit and intelligible.

The first is that of Dr. Cullen, which every one must admire for its clearness and simplicity, and which will be best given in his own language:—‘The flowing of the menses depends on the force of the uterine arteries impelling the blood into their extremities, and opening these so as to pour out red blood.’ It may be observed that, according to this statement, the blood passes through the uterine vessels in the ordinary way of simple arterial transmission, and when it reaches their extremities at the inner surface of the uterus, these open, or are forced

with less or more facility, and the fluid thus escaping, or poured out, is neither more nor less than pure blood.

The other view concludes the process of menstruation to be a secretion; consequently the uterus must be considered as a gland, and the menstrual fluid, its product, a secretion, and possessing qualities essentially different from ordinary blood.

As far as I know, the chief ground for this opinion is the supposed difference of the menstrual fluid from blood. It is affirmed that the menstrual fluid never coagulates, hence it cannot be pure blood, but must of necessity be a secretion. Yet it is admitted by the same party, that if menstruation is profuse, clots and coagula are often seen, similar to those arising from ordinary blood allowed to remain at rest. Here then is an admission, that if menstruation is moderate in the quantity discharged, the fluid is a secretion; if, on the contrary, the quantity is profuse, the fluid discharged is blood. If this is true, the conclusion is unavoidable, that the uterus acts in ordinary circumstances as a gland, but when there is any increase of that action the glandular operations are set aside, and it acts upon the principle of simple transmission, or according to Dr. Cullen's theory.

It does not appear that different degrees of action in other glands are productive of any such results. We have seen the operations of glands completely suspended, and we have also witnessed their action in a ten-fold degree increased, discharging their accustomed products in great profusion, these to be sure greatly altered and vitiated; but I am not aware that we have, in a single instance, witnessed a gland so completely alter its secreting structure, as to become the simple transmitter of pure blood.

The question as to the uterus being a secreting or non-secreting organ, is perhaps one of no great practical importance; but the varied, often violent and unnatural action of the uterine vessels, will be found to explain many of the phenomena of menstruation, and particularly that of painful menstruation.

There are few complaints more frequent, and none productive of a greater amount of suffering to females, than dysmenorrhœa. In many, the whole time of their menstrual life is imbibittered by the regular monthly returns of this painful affection, nor is the pain in such limited to a few hours before the discharge makes its appearance, which is common enough, but both before the discharge makes its appearance, and during the whole time of its continuance, their sufferings resemble and are not less than a protracted and severe case of parturition.

Pain is not the only distressing symptom of dysmenorrhœa: there is in many cases a considerable degree of fever, with such disordered state of stomach that all kinds of food are nauseated and rejected. Pain, however, is the most prominent symptom, but the cause of it in these cases has not been satisfactorily explained. There can be little doubt of its seat being the uterus, but what that state of the uterus is, into which it is thrown by menstruation, is the point concerning which we should like to inquire.

How then is pain occasioned in menstruation? In answer and explanation of this question, the following reasons are proposed:—

1st. There may be such a degree of structural derangement of the uterus, as either to unfit it altogether for menstruating, or to permit the function to be performed, but not without pain and difficulty.

2dly. An inflamed or irritable state of the uterus, its nerves or its blood vessels, may give rise to painful menstruation.

3dly. There may, in certain individuals, be painful menstruation, in consequence of either local or general debility. In such, the circulation is so weak that the extremities of the uterine arteries are not easily forced open, or a degree of unnatural constriction or spasm of these extremities exists, which resists, and that painfully, the ordinary or enfeebled impulse of the circulation.

Or, 4thly. There may be, as Dr. Mackintosh supposes, complete closure of the os uteri preventing the escape of the menstruous fluid, or the orifice may be so very small as to render its escape difficult and painful.

These four causes of dysmenorrhœa we shall endeavor shortly, and as explicitly as possible, to explain.

How then does structural derangement in the uterus cause the pain in question? We are well aware that the uterus is very frequently the seat of altered and deranged structure, and we are likewise aware that when derangement to any amount exists in any organ, its regular and peculiar functions cannot be properly performed. All this, it may be said, is very true; but how comes it, if disease, or so much derangement exists in the uterus as to occasion painful menstruation, that it should never be felt except when menstruation is going on? Pain is then, and only then, felt, just because the uterus is at that period in a state of activity. The regular monthly recurrence of the pain puzzles, because we forget that the uterus is not an organ of every day use; it performs its functions at stated periods only, and whether these periods are long or short, so long as the structural disorder continues, menstruation may be painful, while the intervals may be passed without the slightest symptom of uterine disease.

Painful menstruation arising from this cause, is, I presume, most frequently met with in those who are somewhat advanced in life. Child-bearing subjects the uterus to many accidents and much rudeness, which lay the foundation of structural derangements at some subsequent period. In such cases, however desirable it might be to ascertain the exact state of the uterus, this will in general be beyond our reach; and even were such a diagnosis attainable, the present state of our knowledge and experience furnishes almost nothing for the removal of such uterine disease.

The second cause mentioned of painful menstruation was an inflamed or irritable state of the uterus, its nerves or its blood vessels. Dr. Blundell says dysmenorrhœa is not an inflammatory affection. I believe it is not so in general; yet there are many cases which bear strong marks of an inflammatory character, and it would appear that the uterine or menstrual vessels are at times so excited as to furnish a product similar in many respects to the buffy coat of inflamed blood.

It has been long known that many females who menstruate with pain, have discharged a membrane from the uterus similar in shape and structure to the membrana decidua, and that while the decidua is the effect of the excitement of conception, this menstruous membrane is the effect of

an inflamed or similarly excited state of the uterine vessels. Dr. Denman was led, from the frequency with which he met this membrane, to ascribe difficult menstruation to it in general. I have met with this membranous production in several instances, but in many other cases, although it has been sought for with the greatest possible care, not a vestige of it could be found. Where such a membrane exists, it is easy to perceive how menstruation should be difficult. There is a coating formed on the inner surface of the uterus, which will present a complete barrier to the easy effusion of the menstrual fluid, so that many painful efforts may be necessary by the obstructed vessels and the uterus generally, before this membrane is expelled.

In many cases when this membrane does not exist, and when, of course, there is no such obstacle offered to the escape of the menstuous fluid, menstruation will, I conceive, be found painful, from the mere circumstance of the uterine vessels discharging their contents in their inflamed state. It is very probable, that whenever there is inflammation, the blood vessels, as well as nerves, participate in it; and as the blood vessels are endowed with sensibility, we cannot avoid the conclusion that the chief source of pain, in many cases of local inflammation, arises from the arteries being under the necessity of acting in this their unnatural and diseased state.

There is reason to suppose that this species of the complaint, which is connected with a membranous production, or an inflamed state of the uterus, occurs only in plethoric constitutions, and when there is an obvious tendency to general or local inflammation. Here bleeding, both local and general—warm hip-bath, with other antiphlogistic means, will be found most useful. In such cases much benefit might be expected from an alterative course of mercury conjoined with opium. Dr. Dewees speaks in very high terms of the volatile tincture of guaiacum, which he exhibits with the view, I presume, of its acting in the same way here as it does in the case of rheumatism. He gives it in drachm doses three times a-day, in sweet milk or white wine. It is given in the intervals of menstruation; the dose is gradually increased, and it must be persevered in for several months. He trusts chiefly to camphor during the menstrual attack. This is given by him either in the form of emulsion, or in powder, in 10 grains every hour while the pain continues. From the trials which I have made of these medicines, I am sorry to say the result does not confirm the very favorable opinion I had formed of them from the recommendation given of them by Dr. Dewees. More, however, has been said in recommendation of guaiacum and camphor than any other medicines, and my failure with them may have arisen from the exhibition of them in improper cases, or from that want of tact which can be acquired only by time and many trials.

The third cause of painful menstruation was said to be general or local weakness. This cause may appear a mere assumption. It may be said, it is quite conceivable how structural derangement may occasion pain, and also how an inflamed state of the uterus should give rise to pain in the act of menstruating; but how a local or general weakness, or a feeble circulation, should occasion pain, is not so obvious. It is true that pain is far more frequently an attendant on structural derange-

ment, and likewise on an inflamed state, than it is on positive weakness. Yet every one must have observed pain in a part where neither derangement of structure nor inflammation was present—perhaps the structure of the uterus may assist in explaining this.

The structure of the human uterus is very peculiar, the blood vessels being so constituted that their extremities either open spontaneously or are forced open by the *vis a tergo*—the result of which is an effusion either of pure blood, or, if you will, a secretion. What is the reason of such peculiarity it may be impossible to tell; but since the vessels are so constituted as to open into the cavity of the uterus, and there at stated periods to discharge their contents, it appears a wise provision that the extremities of these vessels should be provided with such a degree of contractile power as to close them, and prevent, as by a sphincter, any effusion in the common and ordinary state of the circulation. But when the menstrual action commences, which may be considered merely an increased action of the uterine arteries, a greater quantity of blood will necessarily be urged forward to their extremities, and these will either open at once to the first impulse (in which case menstruation will be easy), or the extremities will resist till a higher degree of action and greater accumulation of blood force them open; in which case, menstruation will be painful exactly in proportion to the resistance offered.

Now, suppose the constitution to be in a state of great debility, the menstrual action may be suspended completely, as we see frequently happens in case of phthisis; but in other states of the constitution, where the powers of life are not brought so low, the menstrual action commences and goes on with comparative vigor, but yet with a power quite inadequate to overcome the resistance at the extremities of the vessels, and consequently menstruation will be painful, in proportion to the congestion and extraordinary efforts the uterine arteries make. It might be expected, and it will generally be found, that the same cause which lessens the power of the arteries to propel, will in an equal degree lessen the contractile power of their extremities to resist; but in many instances this does not follow, and we know that the uterine surface is very much and easily influenced by many circumstances, as cold, passions of the mind, &c.: and, moreover, *that* contractile power may be too predominant in some cases, so as to destroy the just proportion which ought to exist betwixt the resisting and propelling powers. In those women, it is hardly necessary to observe, menstruation is likely to be at all times both difficult and painful.

I am convinced debility will be found far more frequently the cause of dysmenorrhæa than either structural derangement or an inflammatory state of the uterus; at all events, debility and painful menstruation are very generally found together, so that even in cases where there has been good reasons to suppose structural derangement or an inflamed state to have been the primary cause, debility has at length been superinduced by the severe and continued suffering from painful menstruation. Dr. Gooch, who is perhaps the best writer upon this subject, says, 'There are some practitioners who regard this disease as one always of an inflammatory nature; and in this view of it, their treatment is little better than empirical.

It consists, they say, of chronic inflammation of the uterus, and knowing the power of mercury in curing chronic inflammation of the liver, eye, and other organs, they immediately put the constitution under its influence, by giving a grain of calomel with opium, or extract of hemlock, every night, until the gums become a little tender; others assuming also that the disease is always inflammatory, prescribe indiscriminately that course of treatment which is termed antiphlogistic, consisting of bleedings, abstinence from animal food and fermented liquors, together with vegetable diet, purgatives, &c. &c. This treatment is proper only in that form of the disease which is dependent on plethora, *the instances of which are by far the most rare.* Dr. Dewees commenced with the antiphlogistic plan: by which he said he relieved many, but cured none.' In this species depending on weakness, Gooch speaks of camphor as a specific, and also of tinct. guaiac. as being useful, but as being hurtful in cases of an inflammatory character. 'In plethoric subjects,' he adds, 'the mild mercurial course is the most likely to be beneficial; the treatment by camphor and guaiacum may be prejudicial, and is suited only to women of pale complexion, nervous irritability, and languid circulation. I find cases of dysmenorrhœa much more manageable under these methods of treatment, than under any with which I was formerly acquainted.'

The fourth cause of dysmenorrhœa is partial or complete closure of the os uteri. Dr. McIntosh of Edinburgh has lately given some important facts relative to this subject, and his opinion seems to be that the pain during menstruation is owing, in most cases, to mechanical closure of the os uteri. He has collected many specimens of uteri where the orifice barely admitted the probe, and where, as might be expected, the menstruation had always been painful. The cure of such cases is, of course, puncture and dilation by different sized bougies. It is important to know that such cases of painful menstruation occasionally exist, yet I am convinced that this forms a very fractional cause of a disease which is perhaps more common than any to which females are liable.

Thus have I endeavored to show that painful menstruation arises from very different causes, and consequently requires very different modes of treatment. It is probable that much of the want of success in the cure of this affection, depends on the indiscriminate and uniform way in which we treat it. Were we more successful in our treatment, there is good reason to suppose that females would apply to us with these complaints more frequently than they are found to do; they learn from each other that we do them little good, and consequently bear their sufferings in silence, when they have no hopes of cure.

In the preceding Sketch I have been more anxious to furnish something like pathological views on which to ground some useful practice, than to recommend medicines or modes of cure in which experience has no confidence. Dr. Gooch says, 'in the treatment of this disease there are principally two indications;—the first to alleviate the pain during the menstrual period, and the second to employ between the intervals of menstruation such remedies as will prevent its recurrence. The first intention is easily accomplished, but the second, if at all, with great difficulty. If the uterus is tender on pressure, with a hot skin, rapid pulse, &c. the existence of an inflammatory state of the uterus is de-

noted. In this case the hip-bath must be used, abstinence from animal food and fermented liquors must be directed, together with a vegetable diet, diluents, and purgative medicines, and blood must be abstracted if the inflammatory state is such as to require it; by these means the pain will be diminished, and the uterus will be disposed to a more healthy action.

‘In females of a weak nervous constitution, gentle laxatives, together with anodynes, may be given on the first occurrence of the symptoms; the use of the hip-bath may also be extremely beneficial.’ I may just add, that stimulants, under all circumstances, are very frequently resorted to by females during the attack, and very often with advantage in cases of debility. Opiate enemata, too, during the attack, whatever the cause may be, will generally be found to mitigate the severity of the pain.

In order to prevent a recurrence of dysmenorrhœa, Dr. Gouch continues, ‘If the abdominal viscera are disordered, you must endeavor, by a treatment upon general principles, to restore them to a healthy state. If plethora be the cause, you must reduce the quantity of the circulating fluid by a vegetable diet, saline laxatives, and by the abstraction of blood once a month. If there is debility, you must strengthen the system by the metallic tonics, as by steel and sulphuric acid combined with the sulphate of zinc, and by pure air and gentle exercise;’ and, as already observed, by a free and persevering use of the tincture of guaiacum, as recommended by Dr. Dewees.—*Glasgow Medical Journal*.

CROTON OIL.

Observations on the Employment of Croton Oil as an External Irritant.

By R. HUTCHINSON, M.D., Physician to the General Hospital, Nottingham, Eng.

THE croton oil has been frequently recommended as an external irritant, but as yet little used in this country. The true power and successful application of this medicine, are not yet sufficiently substantiated, requiring a numerous collection of facts to ascertain in which cases, and under what circumstances, it may be most advantageously applied. I am anxious to contribute my quota towards arriving at a satisfactory conclusion, having for a long period been in the habit of extensively employing it; and in publishing the following observations and cases, I hope to assist in determining the real utility of a medicine so active and energetic. The combined experience of many can alone substantiate the true powers of a remedy which is as yet almost untried as an external irritant.

Six drops of croton oil, when applied to a sound skin, and rubbed in for a period of from eight to twelve minutes, speedily produces a rubescence, to a greater or less extent, depending upon the individual's susceptibility; this gradually increases, until a general, though moderate, tumefaction occurs, apparently affecting parts deeper seated than I have seen occur from the use of any other external irritant. This is succeeded, in a period varying from six to twelve hours, by numerous vesicles,