which were attached to the mucous membrane and which swarmed with ova. He has assured me also that the spine of these ova was lateral while that of the urinary ova was terminal. If this should be so, it would account for the statement of Bilharz and Griesinger as to some of the ova having lateral and others terminal spines, which has appeared strange to those who have, like myself, studied only the hæmaturic form. All seem to be agreed that the source of the parasite is infected and unfiltered water; and Sonsino adduces in support of this opinion the fact that Europeans and well-to-do natives never use the water of the Nile unfiltered, and are therefore exempt from the disease, while the lower classes use the water as it comes from the river and suffer accordingly. But I am not aware that anyone has seen the animalcule in infected waters. As a prophylactic measure it is suggested by Harley and Sonsino that drinking water should be conveyed in covered channels to prevent contamination by the excreta of persons infected with the parasite, that it should always be filtered, and that vegetables and fruits should be washed with filtered water before use. How the entozoon penetrates the bloodvessels and finds its natural habitat there is still a mystery. The size of the adult worm and of its ova and embryos precludes the idea that they can be carried through the capillaries or even through the smallest arteries and veins. In one of my cases I once opened a vein in the arm, but found no traces of the parasite in the blood. If the ovum or embryo be the starting-point, it is difficult to understand how they can enter through any part of the absorbent system into the bloodvessels. Dr. Harley supposes that during bathing the leech-like animal may lay its eggs through the skin into some superficial vein, or more likely find its way into the bladder through the urethra.

The case recorded above is the only one in which I succeeded in obtaining apparently a perfect cure. The drug used was oil of turpentine, given in teaspoonful doses three times a day, and continued for about three weeks. I had employed in my previous cases every method which I had read of, or which suggested itself to my mind, but without the slightest effect on the disease as such. When strong tonic medicines were given the general strength may have been slightly benefited; but the examination of the urine revealed in every case the persistence of the parasite. Among other things I tried ten-minim doses of oil of turpentine, with the same quantity of extract of male fern, and carbolic acid, by the mouth and hypodermically, for some weeks, until the system was thoroughly saturated with it, and the urine became smoky. Injections with one-scruple doses of iodide of potassium into the bladder, as recommended by Dr. Harley, I never employed as far as I could wish, and the result was abortive. But in the case he mentioned it does not appear that the success was all that could be desired, for "the patient still passed a few eggs . . . and the ova were in a more lively condition."

P.S.—I should have preferred to delay this communication until I might have had another case for testing again the efficiency of the oil of turpentine; but in the present circumstances, when the disease is attracting so much attention, I thought it my duty to publish the only case of cure by medicinal treatment, so far as I know, and to leave to others, who are now seeing the disease, the opportunity of repeating the use of this drug, and finding out whether we have in it a real specific for endemic hæmaturia.

Beyrout, Syria.

VOLUNTEER AMBULANCE INSPECTION.—The annual inspection of the Ambulance Company of the Tower Hamlets Rifle Brigade took place on the 29th ult., at the Headquarters, Hoxton. The class numbers thirty members, two or more men being taken from each company of the regiment for instruction in ambulance duties and stretcher drill. The Company was commanded by Surgeon Platt, assisted by Acting Surgeon A. O. White. The inspecting officer, Surgeon-General McKinnon, A.M.D., who was accompanied by Surgeon-Major Don, A.M.D., having witnessed the exercises of drill and stretcher duty, with the application of tourniquets, splints, and bandages, expressed himself as highly satisfied with the inspection. The result, he said, reflected great credit upon Surgeon Platt and the non-commissioned officers and men of the class; and he should have great pleasure in signing the War Office certificates of those members of the class who did not already possess them.

THE CLINICAL CLASSIFICATION OF BACKWARD DISPLACEMENTS OF THE UTERUS.¹

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IT is a truism in medicine that for treatment to be successful diagnosis must be accurate. The backward displacements of the uterus, retroversion and retroflexion, are met with sometimes without symptoms, sometimes with symptoms; and in the latter case the symptoms, in different instances, differ widely in kind as well as severity. In some cases the symptoms are removed with striking rapidity and completeness by mechanical treatment, while in others the same treatment entirely fails to relieve. Clearly, therefore, all cases of backward displacement of the uterus are not alike; and before we can treat them with any approach to certainty of result, we must be able to make a diagnosis between those cases which require a particular treatment and those which do not; in other words, they must be classified.

The classification at present most in favour depends upon the shape of the uterus: whether it is bent or not; the sharpness of the bending; the greater or less difficulty of straightening it or keeping it straight. Such a classification of course implies that bending is the important feature of the cases to be classified. I believe that bending of the uterus *per se* is, as a rule, an unimportant condition. I have set forth the reasons which induce me to take that view, so far as dysmenorrhœa is concerned, in papers communicated to the Obstetrical Society of London; and therefore I need not here again defend it. I will only make these assertions: that there are many cases in which symptoms associated with retroflexion will entirely disappear, without any appreciable alteration in the shape of the uterus having taken place; and that there are many others in which mechanical treatment, perfectly successful so far as removing the flexion is concerned, fails to remove the patient's symptoms. Cases such as these are not exceptional, but quite common. Of course there are others in which the reverse is the case. But the existence of the former class of cases is enough to show that a classification based merely on the shape of the uterus is not an adequate one, not one which helps in the treatment of backward displacements of the uterus.

To make clear the principles upon which I think that distinctions should be drawn between different cases of backward displacement, I would ask attention to the circumstances in which such displacements occur, and the conditions upon which, in my opinion, the symptoms connected with them depend.

The essential abnormal condition which produces these displacements is yielding of the pelvic floor—that is to say, the muscles, fasciæ, fat, and cellular tissue, which form, as Dr. D. B. Hart has pointed out, a compact layer closing the abdominal cavity below. I see no reason for attributing them to an isolated alteration in any single structure; for it has been shown by experiment² that different component parts of the pelvic floor may be separately divided without producing descent or displacement of the uterus. When slight yielding of the pelvic floor takes place, one of the first results is that the mobility of the uterus is increased, and that this organ slightly sinks. The greater mobility of the uterus which the loosening of its supports obviously involves allows it to fall either forwards or backwards. If it were rigid, a falling forwards or backwards of its body would be accompanied with a relative elevation of its cervix in the contrary direction, seeing that the uterus is most firmly fixed at about the level of the os internum. Often this is what takes place, and then we have anteversion or retroversion, as the case may be. But sometimes, instead of altering its position in the manner described, the uterus bends, the body thus sinking without much change in the position of the cervix. Retroversion and retroflexion are

¹ Read before the Hunterian Society.

² Savage: *Surgery of the Female Pelvic Organs*, 1870, Pl. xi. Hohl (quoted by Aran): *Maladies de l'Uterus*, p. 980.

thus results of a slight degree of prolapse. They are often, indeed, valuable indications of a slight yielding of the pelvic floor. There are cases in which the uterus, while the patient is in the ordinary obstetric position, is not measurably lower in the pelvis than natural, and yet we find symptoms. Did we look to the amount of descent of the uterus appreciable by the medical man as the indication for mechanical treatment, we should detect no necessity for it; but the version or flexion of the uterus reveals to us the altered condition of the uterine supports.

This, then, is the first point to which I would ask attention: that retroversion and retroflexion, when pathological, are alike results of slight yielding of the pelvic floor. Without such yielding they cause no symptoms. Their presence with symptoms is an indication of a degree of prolapse which may be too slight to be detected in the ordinary obstetric position, except by the alteration in the inclination and shape of the uterus.

The next thing to be borne in mind is that the most common cause of yielding of the pelvic floor is parturition and its effects. After delivery the pelvic floor should return practically to its condition before the pregnancy. But this is not always the case. From the injuries to the parts which attend childbearing, and from disturbances in the process of involution, some loss of tone in the pelvic floor frequently results. Hence we find prolapse, retroversion, and retroflexion, chiefly in women who have had children, and comparatively seldom in virgins. But parturition also brings with it an increased liability to many pelvic disorders: metritis, perimetritis, ovaritis, &c. These conditions are thus very commonly associated with backward displacement of the womb, simply because they are prone to occur in the same class of patients.

Anteversion and retroversion resemble one another in being alike results of slight prolapse. But the consequences of these displacements differ, for the reason that behind the uterus there is occasionally an anatomical disposition of parts to which there is nothing analogous in front of it. There are two folds of peritoneum, containing some muscular and fibrous tissue, running back from the neck of the uterus to the sacrum—the utero-sacral ligaments. These bands vary very much. Commonly they are small, wide apart, and loose; they may even not exist at all as visible folds of peritoneum. Sometimes they are so strong, tense, and close together that Douglas's pouch is a sac with a distinct and narrow neck. When this disposition of parts is present and the uterus becomes displaced backwards, its body may, by the intra-abdominal pressure acting on its anterior surface, be forced down into Douglas's pouch, against the margins of which the veins running in the broad ligaments, and returning the blood from the body of the uterus, will then be pressed. The return of blood from the uterus may thus be obstructed, and congestion of that organ be the consequence. The body of the uterus may even, there is reason to believe, be so far pushed down as to become grasped by the utero-sacral ligaments, and incarcerated in Douglas's pouch. It is rare to find these ligaments so tense and so close together as to be capable of grasping the body of the uterus. But it is not uncommon to find one or both of them quite strong enough to be capable of exerting pressure on the veins of the broad ligaments when the body of the uterus is pressed down between them.

The utero-sacral ligaments have another effect beside this. When strong and tense they tend to restrict movement of the neck of the uterus in a forward direction. Hence when, this condition of parts being present, the body of the uterus becomes displaced backwards, the utero-sacral ligaments prevent the cervix from moving upwards and forwards. The womb therefore bends, and retroflexion is the result, instead of retroversion, which would be the kind of displacement produced if the cervix were free to move.

I would now ask permission to briefly repeat the important points in what I have been saying:—

1. Backward displacement of the uterus, when pathological, is a result and indication of slight yielding of the pelvic floor.

2. It is prone to occur in the class of patients who are most liable to inflammatory and other diseases of the pelvic organs.

3. The disposition of parts behind the uterus is sometimes such that when the uterus falls backward, the veins which return the blood from it are pressed on, the return of blood is impeded, and the uterus becomes congested.

On this view of their pathology I would classify backward displacements as follows:—

1. Those which cause no symptoms of any kind.

2. Those in which the displacement (including under that term the totality of the conditions which produce it) is the only morbid condition present, and there is no congestion, the symptoms being those of prolapse only.

3. Those in which there is not only descent, but congestion of the uterus.

4. Those in which the displacement is complicated by other conditions, which may or may not be aggravated by it.

Upon each of these classes I would now offer some further remarks:—

1. It is difficult to get at a correct estimate, at least in this country, of the frequency with which retroversion and retroflexion occur without any symptoms; and it is not of great practical importance. Circumstances every now and then make it our duty to examine the pelvic organs, although the patient has never complained of any functional disturbance referable to them. No one can have made many such examinations without occasionally finding the uterus displaced backward; and from the few such patients whom one is required to examine, one may infer as to the many whom one does not examine that such displacements occur also in them. Further, retroversions and retroflexions have been found post mortem in patients who were known not to have any uterine symptoms during life. But the most important piece of evidence, from the large numbers of which it consists, is that furnished by Vedeler.³ This physician, who practises in Christiania, examined 414 healthy virgins, and found the uterus retroverted in 45 of them, or 11 per cent., and retroflexed in 13, or 3 per cent. He also examined 506 healthy nulliparæ, and found retroversion present in 47, or 9 per cent., and retroflexion in 17, or 3 per cent. (I have myself examined 111 nulliparæ who sought advice not for uterine symptoms, but for local contagious disorders, and I found retroversion twice present and retroflexion once.) Vedeler also examined 584 healthy women, each of whom had had one or more children. Among these he found 57 retroversions, or 10 per cent., and 69 retroflexions, or 12 per cent. In all, out of 1504 healthy women, Vedeler found the uterus displaced backwards in 248, or 16·49 per cent. Out of 1158 women who were suffering from uterine symptoms, he found similar displacements present in 259, or 22·37 per cent. Other writers have published statistics showing the frequency of retroversion and retroflexion in patients not selected by their seeking treatment for uterine disease, as well as in fetuses and children; but none have investigated such large numbers, or differentiated so carefully between the different classes of patients, as Vedeler. As evidence of his accuracy, I may compare one of his statistical statements with a similar one compiled from his own experience, by Dr. Graily Hewitt.⁴ This latter author, out of 1205 women suffering from uterine symptoms and examined by him, found retroflexion in 112, or 9·3 per cent. Vedeler, out of 1106 patients suffering from uterine disease, virgins being excluded, found retroflexion in 112, or 10·1 per cent. As retroflexion is not common in virgins, it is possible that if the few virgins probably included in Dr. Hewitt's tabular statement were subtracted from it, as they have been from Vedeler's, the result might be to make the percentage of retroflexions almost the same.

It is necessary, in classifying the backward displacements of the uterus, to recognise the frequent occurrence of these cases—viz., those without symptoms; because in practice it is essential that we should always bear in mind that as retroversion or retroflexion may exist in a healthy woman without causing symptoms, so either of these displacements may be present along with functional derangement, which it has no share whatever in producing or modifying.

(To be concluded.)

³ Archiv für Gynäkologie, Band xix., S. 294.

⁴ Diseases of Women, third edition, 1872, p. 5.

DR. HENRY BROWN, of Northallerton, Yorkshire, one of the honorary surgeons of the Northallerton Cottage Hospital, has tendered his resignation to the committee as medical attendant to that institution.

THE proceeds this year of the Hospital Saturday and Sunday collections in Manchester amount to £7537, being an aggregate increase of £1585 over the sum raised in 1881.