

*On the Mechanical Treatment of Sterility.* By HENRY OLDHAM, M.D.—

There have been three plans of treatment of a mechanical kind, for the cure of dysmenorrhœa and sterility, recommended and practiced; and it is impossible for any one in practice in this city [London] as an obstetrician, and who reads the weekly and monthly journals, to be blind to the fact, that these means have of late been unsparingly and boldly employed. They consist, first, of the dilatation by metallic bougies or sponge tents, or by section of the os uteri internum and externum; secondly, of the removal of the front or back displacement of the womb by Dr. Simpson's uterine stem supporter; and, thirdly, by probing the Fallopian tubes. It is impossible for me to omit the notice of these expedients; although, if the womb be ascertained to be undersized, they would, I should hope, be abandoned in reference to it. No cutting, or dilating, or supporting, or probing, can make a small womb larger; and the amount of uterine stimulus which they would excite would be considered far too unimportant to justify their use. I know, however, that the characters of the reduced womb (if I may so call it) are not always appreciated in their entirety; and a source of error may arise from mistaking the natural and proportionate smallness of its orifice for a contraction to be removed mechanically. The anteversion I have noticed would, by some, be regarded as an efficient cause of sterility and dysmenorrhœa, and the uterine supporter be applied; while I suppose that Dr. Tyler Smith, if one or both these plans had been tried and failed, would, *par voie d'exclusion*, consider it as coming within the undefined limits of tubal catheterism. The few remarks, however, which I shall make upon this subject, must be supposed to apply to the mechanical cure of sterility and dysmenorrhœa generally, without any strict application to these disorders as connected with the undeveloped womb.

There are few cases which come before an obstetric practitioner which are so full of perplexity as those of sterility, especially where it is limited to those cases where the os, and cervix, and body of the uterus are free from any recognizable disease. Recent researches have afforded most valuable information on the composition of the male and female generative elements, and the physiology of generation; but our knowledge of the various causes by which impregnation is intercepted or prevented is very limited. One of these, no doubt, is any such partial or complete occlusion of the sexual canals as to prevent the transmission of the semen. Others are to be found in imperfectly developed ova, within a shrunken ovary, or some defect in the semen, or a want of congruity between the two elements. These are subtle and concealed causes, difficult, and, with our present knowledge, almost impossible to detect, but of infinitely greater importance in their relation to primary sterility than the mechanical obstacles which have of late so exclusively engaged attention. It appears to me that the cases which justify the use of mechanical treatment require the greatest discrimination, not only on account of the facility with which they may be confounded with perfectly natural conditions, but also because these operations are not without danger. There is scarcely any amount of danger or pain that women will not go through to obtain the prospect of becoming mothers. They are notoriously credulous as to success, and are the ready, and often the costly victims of empiricism; and I would venture to say, that obstetricians ought to be nicely scrupulous in encouraging a plan of treatment of a very doubtful efficacy, and dangerous to life. I cannot imagine a position more overwhelm-

ingly distressing to any right-minded man than to have been the means of destroying the life of a woman in the endeavour to remove sterility. And yet I am sure that, in these operations, a hazard is run quite disproportioned to the amount of good accomplished; and I shall recount two fatal cases which have come to my knowledge: and I cannot but infer that others of a similar kind have occurred, but have not been recorded side by side with those of a more fortunate issue.

I feel great confidence in saying that the true congenital stricture of the os uteri, externum or internum, or of the Fallopian tubes, sufficient to prevent impregnation, is *very rarely* to be met with; and yet nothing is more easy, with the idea of a mechanical impediment in the mind, than to be self-persuaded into the belief that the natural orifice is too small. It is quite impossible to fix a standard size for the inlet to the womb. It has often happened to me to feel the virgin os uteri extremely small, and yet pregnancy to take place. The sound, too, is a very insecure guide to the measurement of the os internum; and I think it is a most reprehensible practice to allow a neuralgic dysmenorrhœa, whose seat I believe is generally in the ovary, to be the indication for this meddlesome practice. The only cases, in my opinion, in which a mechanical dysmenorrhœa with sterility can be said to exist, are those in which the tissue of the cervix is large and firm, and the os uteri is diminutive in comparison with the size of this body: a small, almost imperceptible, round aperture perforating a bulky cervix. When the tissue of the cervix is not so condensed, but has its normal, yielding feel, I doubt altogether the propriety of regarding even a very small os uteri as a strictured one. I have myself successfully treated by dilatation some cases of the kind above cited, but they are *very few*, compared with the large number which come under my care.

I. I am indebted to my friend Dr. Golding Bird for the following instructive case. On April 7th, 1849, I received from him the uterus and appendages of a lady who had died from peritonitis, excited by attempts to cure sterility by mechanical dilatation, whose history, as furnished to me by Dr. Bird, is as follows, and with whose concurrence I publish it:—

"A lady of dark complexion, aged 36, married several years, and never pregnant, resided in Jamaica. From youth she suffered intense dysmenorrhœa, and always had pains during sexual intercourse. She was nervous, hysterical, and excitable to the last degree, and was supposed to have suffered from every possible form of inflammation; these attacks obviously being neuralgic, so common in hysterical women. In June last, by the advice of her physician in Jamaica, she came to London for the express purpose of having the os uteri dilated, which had already been attempted by wax dilators. The obstetric physician who was consulted in London coincided in this opinion, and thought the sterility and dysmenorrhœa depended on a stricture of the os uteri. He divided the os uteri with a cutting instrument, and introduced silver dilators. This produced horrible suffering; and, although at first she fancied the pains of menstruation were rather better, they soon became as bad as ever, and she did not experience the slightest relief. She left off the treatment for a time, but was soon again inclined to resume it: and silver canulæ were passed into the os, and left there. Again she suffered frightfully. On Saturday, March 31st, a gentleman, the assistant of the physician, passed in another tube, but the distress was intolerable; and sickness and shivering coming on, she urgently begged her sister to try and remove it, which she succeeded in doing. Getting worse, a neighbouring surgeon was summoned, and he found her labouring under what he regarded as peritonitis masked by hysteria. She had scarcely any fever, collapse coming on almost immediately, and she continued sinking until Tuesday, when I (Dr. G. Bird) was summoned to her. I found her at her sister's residence at T—Park, presenting almost the collapse of cholera: pulse 200, and a mere thread; distended abdomen; vomiting of black fluid; intense irritability. All treatment was useless, and she soon sunk. On examining the body, and raising the omentum, no appearance of disease of any kind was found above a line connecting the anterior superior spinous processes of the ilia. Below this line there was intense peritonitis; the convolutions of the intestines covered with



butter-like lymph, and the pelvis filled with pus-like fluid; the right ovary and broad ligament covered with the same butter-like lymph, but so feebly adherent that it washed away by dipping it in water; the cavity of the uterus was filled with bloody mucus. There was no other disease."

The uterus and appendages were examined by Dr. Oldham.

The uterus had been opened by a single oblique division of the anterior wall, directed from the cervix to the left angle of the womb. The uterus was larger than usual for the virgin: it was rounded on its anterior surface, and a bulging convexity of the posterior wall, which, with the general softness of the tissue, showed it to have been the seat of recent engorgement.

The blood-vessels over the entire surface of the uterus and appendages were injected with blood, especially the fimbriated extremity of the tubes, the ovaries, the broad and round ligaments. On the anterior surface of the body of the uterus were two small projecting fibrous tumours, the size of a large and small pea; the serous investment of them was highly vascular, the blood-vessels rising over them just like the calyx of the ovarian ovum of the bird. There was a similar more flattened growth in the posterior wall.

The divided surface of the anterior wall showed its proper structure to be much enlarged (it measured in the body eight lines); the muscular structure was soft, and the veins large, a probe easily ran through them. The length of the united cavities was two inches and ten lines, the canal of the cervix being one inch five lines. The mucous membrane of the cavity of the body was soft, slightly raised, and of a vermilion hue. Agitation in the water was sufficient to loosen and separate it.

At the os uteri internum, there was a zone of highly-injected blood-vessels, broken only at one point; the circumference of this aperture was eight lines. The os externum had a clean, smooth edge, without any break or mark of division; its circumference measured one inch one line. The cervix had its characteristic markings, and the glands were empty of mucus. On the right side of the divided cervix, which would have formed the front wall, the ribbings were stretched upwards, enlarging the mesh-like appearance; and, towards the os internum, some were lacerated transversely, and from this to the os externum the structure was more ragged than usual.

*The right tube.*—The extremity of this tube was almost entirely closed as a congenital formation, the aperture being very small. When opened, the fimbriated end showed its characteristic rich folds of mucous membrane, which were much injected, and were covered with bloody mucus. The remaining two-thirds of the tube was apparently healthy, not vascular, and pervious throughout.

The right ovary, which was almost covered with lymph, soft and large. There was a cyst large enough to hold a small nut on the uterine end of the ovary. The stroma was gorged with blood. There was only one puckered Graafian follicle; the surface of the ovary was thick and corrugated.

The left ovary was irregular in its shape, a projecting mamillary portion coming out from its outer end. This, on being cut into, was hard and vascular, like the commencement of malignant disease; the ovarian tunic was thick and wrinkled; the stroma vascular; a few remains of Graafian vesicles, with puckered tunics, and some clots of different colours, black and brownish.

The left tube vascular at its fimbriæ, healthy in its mucous membrane, and its canal pervious throughout. This tube passed into the uterus more directly than its fellow, which was more curved. The veins healthy; arteries healthy; the right round ligament large and vascular; vagina healthy.

It is unnecessary to comment at any length upon this case. It affords a most instructive example of the dangerous effects of dilatation, even in experienced hands, and the great caution with which it should be undertaken. It is important, too, as showing the difficulty of detecting the cause of sterility. I am sure that there was no kind of morbid contraction in this case, and that the os and cervix uteri, which were alone treated, had nothing whatever to do with the dysmenorrhœa or sterility. Both of these, no doubt, were dependent on the atrophy of the ovary; and the congenital obliteration of the end of the

right tube would have been sufficient to exclude the corresponding ovary from any share in the function of reproduction.

II. Another presumed cause of sterility and dysmenorrhœa is any deviation in the position of the uterus, and hence an indication for the cure of these disorders is to replace this organ, and hold it in its proper axis in the pelvis, by means of Dr. Simpson's uterine supporter. Dr. Rigby and others have related cases of this kind. It is not necessary for me to reiterate the objections which I urged in the last number of the Reports upon this subject; but I cannot avoid relating the following case, which more than confirms my opinion of the dangers which may arise from this supporter. I am indebted to Mr. Bransby Cooper for this case, which, like the preceding one, ended fatally, and which he has given me his permission to publish:—

A young married lady, of great personal attractions, was attended by Mr. Cooper for a very painful fissure in the anus, which he divided and speedily cured. She then spoke to him of what had been to her a very distressing social trouble, namely, her sterility, which she associated with a perfect indifference to sexual intercourse. Mr. Cooper examined the sexual organs; but, as he did not discover any defect which could be remedied by surgery, he referred her to a physician-accoucheur. This gentleman detected the uterus in a retroverted state, which he looked upon as the probable cause of the sterility. For the cure of this displacement, he introduced a uterine stem supporter, which set up peritonitis, of which she died in three days.

It is much to be lamented that the warning which such a case as this imperatively suggests should not have been published by the obstetric physician in whose practice it occurred. My own opinion is that mere displacement forwards or backwards, if the uterus be not diseased, does not commonly cause sterility; and I cannot but characterize the practice of fixing the womb in a definite position by means of a stem supporter, as rash and hazardous, causing severe irritation and pain, and even death, to the patient, with, at the best, a very questionable amount of ultimate good. The anteversion or retroversion of a small uterus, without other complications, does not, in my experience, occasion any great distress; and it is far better to leave it alone, and improve its tissue with the rest of the organs of the body, than to prop it up for a time under the feeble pretence of curing it.

III. Dr. T. Smith's adventure of catheterizing the Fallopian tubes I know of only from his papers. I have the instrument by me, but at present I have no intention of using it.—*Guy's Hospital Reports*, Oct. 1849.