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TWO CASES OF OCCLUSION OF THE VAGINA

WITH RETENTION OF MENSTRUAL FLUID.

BY

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TWO CASES OF OCCLUSION OF THE VAGINA WITH RETENTION OF MENSTRUAL FLUID.

BOTH the cases I am about to describe are of considerable interest; the one as being a typical example of the simplest and most common form of vaginal atresia, the other as illustrating a much more complicated and rare variety of that condition.

Case 1.—Ann A., æt. 19, single, a factory worker, residing at Moses Gate, near Bolton, was sent to me by my friend, Dr. W. E. Bradley, of Farnworth, on August 17th, 1886.

She was a strong, well-built, healthy girl, with the development natural for her age. She had never menstruated, nor had she suffered any inconvenience therefrom until a few weeks ago, when she had some pain in the lower part of the abdomen. Soon after this she perceived that the abdomen was swollen. The pain recurred the following month, and she then consulted Dr. Bradley, who forthwith examined her, and, recognising her condition, suggested that she should see me at once with a view to operation.

When she presented herself at my rooms there was a tense, smooth, elastic tumour centrally situated immediately above the pubes, with a smaller and more solid body resting on its summit. On passing a finger into the rectum, a large tense elastic swelling was felt in front, bulging the anterior wall of the bowel backwards. A bimanual examination proved this swelling to be directly continuous with that in the abdomen. The patient being placed on her back, with her knees flexed and separated, nothing unusual was observable in the appearance of the vulva until the labia were separated, when the vaginal orifice was seen to be occluded by a thick membrane, resembling mucous membrane in appearance, and bulging very slightly outwards. Through this membrane an elastic mass could be felt, continuous with that perceived in the rectum and above the pubes. On more close examination the hymen

was found to be of its usual shape, spread out upon the outer surface of the membrane and intimately adherent to it. It was arranged that the operation should be performed on the following day at the girl's own home.

Accordingly, at 4-30 p.m. on August 18th, the patient was placed on her back at the edge of a table, in a good light, with the knees flexed and separated. In accordance with her wish, no anæsthetic was given. Seating myself before the patient, I punctured the occluding membrane by means of a Cock's curved trocar, which had been previously immersed in a solution of carbolic acid, and lubricated with carbolic oil. On removing the trocar a dark brown fluid, of the consistence of treacle, began to flow through the cannula. No pressure over the hypogastrium was employed, or any other means of hastening the evacuation of the fluid. The stream continued to flow slowly and steadily for an hour and a half, at the end of which time it began to pass in drops only. I therefore withdrew the cannula, and inserted a pair of small polypus forceps, opening the blades so as to dilate the aperture sufficiently to admit the finger. The vaginal wall was much hypertrophied; its mucous membrane felt perfectly smooth; the cervix uteri was not within reach. I now again enlarged the opening by incising its posterior margin on a director. The whole quantity of fluid removed during the operation was thirty-two fluid ounces.

A strip of lint, saturated with carbolic oil (1 in 10) was placed in the vagina, and a large pledget of the same laid over the vulva. The patient was then lifted carefully into bed. No douching was used, any fluid that still remained being allowed to trickle away gradually as the patient lay in bed. Orders were given to observe the recumbent posture absolutely for two days, then to be allowed to sit up, during meals and whilst passing urine, for purposes of drainage. A small glass dilator was to be introduced as soon as there was noticed any tendency to contraction.

On August 22nd, Dr. Bradley writes, "The patient has not had the slightest untoward symptom; there has been no increase in the rate of the pulse or any elevation of temperature. Discharge somewhat copious until yesterday, when it almost ceased, so that to-day I managed to

dilate the opening with my finger and inserted the glass tube." The discharge retained its dark treacly character for five days; it then became yellowish, and finally consisted entirely of mucus. On August 28th the patient left her bed in the afternoon, and on September 2nd she was up to breakfast, and remained up all day. I saw her on September 13th at my rooms in Manchester. She was looking and feeling very well. She still wore the glass dilator, which she was able to pass herself, retaining it by means of a napkin. From this time she was told she might discontinue its use in the day time, but must wear it at night until Dr. Bradley thought it safe for her to discard it altogether.

On August 25th, 1887, it being now exactly a year since the operation, the patient called upon me at my own request. She is perfectly well, and menstruates with a fair amount of regularity, and without any discomfort. For some months she wore the glass dilator every night; now she wears it about one night a week as a matter of precaution. On examination, the vaginal orifice is normal, the hymen remaining perfect. The shrivelled remains of the divided membrane can be seen behind the hymen, but are a source of no inconvenience. The vagina is of ordinary length; its walls are still destitute of rugæ, but are no longer hypertrophied. There is no trace of the abdominal swelling. The uterus is normal, both in size, position, and mobility.

Remarks.—The cases of which this is an example are often described as instances of imperforate hymen. The obstruction is, however, not at the hymen, but just behind it; the hymen frequently, as in this case, lying upon the obstructing membrane, and so closely adherent to it, as only to be with difficulty recognised as a separate structure.

The dangers attending the evacuation of retained menstrual fluid are well known; they are chiefly (*a*) rupture of one of the Fallopian tubes, which are often irregularly distended or sacculated by accumulations of blood in their canal; and (*b*) septicæmia. The former of these dangers is best avoided by evacuating the retained fluid slowly. It was with this object that I made a small opening at first, allowing the fluid to escape very gradually, and it was also this that influenced me in avoiding all pressure over the hypogastrium during the operation. The second danger is to be guarded against by careful antiseptic

cleansing of fingers and instruments, and by the avoidance, as far as possible, of the admission of air into the vagina, both during and after the operation.

With regard to the desirability of washing out the parts after the operation with warm carbolised water, or other antiseptic solution, authorities are divided in opinion. My own observations have led me to the conclusion that in cases where no putrefactive change has taken place in the retained fluid, it is better to let it drain away of itself. This was the plan I adopted in the case above recorded, and certainly, no case could have progressed more satisfactorily. Whether the successful result was due, in any degree, to the avoidance of douching, or whether, as the advocates of douching would say, it occurred in spite of it, cannot of course be determined. One thing, however, is clear, namely, that antiseptic washing out of the vagina is not essential to uninterrupted recovery.

Case 2.—Early in the month of August, 1887, I received a letter from Dr. M. J. Fox, of Accrington, requesting me to see with him a girl of 16, named Martha Alice W., the daughter of a working-man residing at Oswaldtwistle. The letter informed me that the case was one of vaginal atresia, with retention of menstrual fluid, requiring operation, and gave some further particulars as to the patient's history, &c., which I have Dr. Fox's kind permission to incorporate in the following report.

On August 12th I visited the patient, and found her entirely bed-ridden. She was extremely weak, pale, and emaciated, and complained of vomiting, complete loss of appetite, and pain in the lower part of the abdomen and back. Her pulse was rapid, and her skin hot and dry.

Her illness commenced in March, 1885, when she was confined to bed for about six weeks. In September of the same year she had another attack of acute illness of a similar nature, and from that time had been in more or less continual suffering and ill-health. She had never menstruated, though her symptoms were all greatly aggravated at periodic intervals of a month. As the patient lay in bed there was no perceptible enlargement of the abdomen, but, on palpation, a distinct tumour was felt in the hypogastric region, extending three inches from the pubes upwards. The upper portion of the tumour was rounded, soft, and

elastic, and was overlapped to a certain extent by the intestines; the lower part was firmer and more solid, and, being in immediate contact with the abdominal wall, was quite dull on percussion.

Before pursuing the examination further, the patient was placed in the lithotomy position before a window, and chloroform was administered.

On separating the labia, the vulva and hymen were seen to be small and imperfectly developed, but otherwise normal. There was no vaginal opening of any kind; nor was there any appearance of a bulging membrane or other indication of a vagina beyond. The orifice of the urethra was unusually large.

On passing a finger into the rectum, the cervix uteri could be distinctly felt, of normal size and in its usual situation; higher up was a soft elastic swelling, lying in front of the rectum and pressing upon it in such a manner as to flatten the fæces. Bi-manual examination proved the lower and firmer portion of the abdominal tumour to be the enlarged body of the uterus; the softer portion above was directly continuous with the swelling in front of the upper part of the rectum. A sound being now passed into the bladder, the left forefinger being still in the rectum, it was ascertained that the thickness of the tissues between the bladder and the rectum scarcely exceeded that of a normal recto-vaginal septum.

It was evident (1) that the lower portion of the vagina was obliterated; (2) that a fully-developed uterus existed; (3) that the body of the uterus was pushed upwards and forwards and was slightly enlarged; and (4) that the main bulk of the swelling lay behind the uterus, and extended somewhat above it. The nature of this swelling could only be guessed at. It seemed most probable that it was either a retro-uterine hæmatocele, or a hæmato-salpinx, or the posterior fornix of the vagina distended by an accumulation of menstrual fluid. Under these circumstances the first thing to be done was to endeavour to open up the occluded portion of the vagina. Accordingly, the sound having again been passed into the bladder, and the handle entrusted to the care of an assistant, I introduced the left forefinger into the rectum, and, with the finger and sound as guides, proceeded to make a transverse incision in the tissues behind the hymen, and then, by alternate use of

the scalpel and the finger, to separate the tissues very slowly and carefully until I could distinctly detect the cervix uteri through a thin intervening membrane. I punctured this membrane with the point of a long straight knife, and enlarged the opening sufficiently to admit the finger. As I did so, a small quantity of dark, partially clotted blood made its escape. On being passed through the opening the finger entered an irregular cavity, bounded on the left by the right side of the cervix uteri, and extending upwards beyond my reach. In this cavity (which I concluded was the right lateral fornix of the vagina) was a small quantity of broken down blood clot, similar to that which had made its escape. A uterine sound was now cautiously introduced, and passed, as I thought, into the uterus. It became evident later on that I was mistaken; the instrument must have slipped up by the side of the cervix into the cavity I have already described. Anyway, it passed up three inches into a comparatively empty cavity, the walls of which lay sufficiently apart to permit free movement of the sound within it. The cervix uteri and all the parts to the left of the newly-made opening and the cavity beyond were matted together into a hard, dense, immovable mass. I therefore determined to content myself, on this occasion, with the dissection already made, merely enlarging the upper opening of the newly-made canal with a touch or two of the scalpel, so as to establish a free communication with the blood-containing cavity beyond and lessen the risk of the wound re-closing. The operation had already occupied rather a long time, owing to the care necessary to avoid wounding the rectum on the one hand, and the bladder on the other. Fortunately, neither of them was injured. The hæmorrhage throughout was altogether insignificant. A pledget of lint, anointed with iodoform ointment, was placed in the newly-made vagina, and the patient was lifted carefully into bed. At 10 p.m., three hours after the operation, the temperature was 103°, pulse 134.

August 13th.—Patient passed a restless night, vomiting several times. Temperature at 9-20 a.m. 100°, pulse 110. A slight discharge of altered blood took place continuously for the first twenty-four hours after the operation, the quantity amounting altogether to "as much as one could hold in one's hand."

August 18th.—Since the last note patient has slept extremely well, taken nourishment freely, and expressed herself as feeling very comfortable. There has been no shivering. The morning temperature has ranged between 100° and 101°, until to-day, when it was 101·9°. The evening temperature (observed at 10 p.m.) has varied between 101·6° and 102·8°. The pulse, which reached 135 on the evening of the 13th, has not again been so rapid, and has occasionally been down to 104. The discharge has been slight, pale, and somewhat offensive.

In the afternoon of this day, Dr. Fox was hastily summoned on account of an attack of pain in the lower part of the back and abdomen, and in the legs. On his arrival he found the temperature 103°, and a free discharge of dark fluid taking place, of a highly offensive odour.

August 20th.—I saw and examined the patient for the first time since the operation. Her general appearance has decidedly improved. The swelling behind the uterus is a little smaller. The newly-made canal remains quite pervious. I enlarged the upper opening with the fingers, by separating the tissues a little further on the right side; this resulted in the setting free of a quantity of ill-smelling coloured discharge which had been pent up in the cavity beyond. The bowels not having acted for several days, I advised an aperient. I also recommended the use of warm vaginal douches, with a weak solution of potassium permanganate, night and morning, and the discontinuance of the catheter, which had hitherto been employed as a matter of precaution, to avoid disturbance.

August 22nd.—The record of temperature since the last note is as follows:—

August	20.	Evening.....	103°
„	21.	Morning.....	103·2°
„		Evening.....	104·1°
„	22.	Morning.....	101·2°

Bowels have been well relieved; discharge from vagina going on freely.

August 25th.—I again visited the patient, and as the examination on the 20th caused her a good deal of pain, she was to-day placed under the influence of chloroform. The newly-opened vagina remained the same. The discharge was purulent and somewhat offensive. The upper opening of the new canal was again dilated laterally with the

finger, and an attempt was now made to liberate the cervix from its adhesions, and open out the left fornix of the vagina. The adhesions were exceedingly firm, but gave way, and I succeeded in shelling out the cervix from its attachments on all sides. The left lateral fornix still remained much shallower than the right, which extended as far as the finger could reach. No opening could be detected in its roof, though pressure over the abdominal swelling resulted in an increased discharge of purulent fluid, which evidently found its way from the tumour through the right fornix. No opening into the cervix could be found, notwithstanding the most patient search. The vaginal canal was now widely open along its entire length. The constriction at the level of the cervix having completely disappeared, a medium-sized glass dilator was admitted with ease.

After this the pulse and temperature improved, and the purulent discharge became more free and continuous, and at the same time less offensive. Evidently, the further opening out of the vagina had given almost complete temporary relief. There still remained, however, the uterus to be dealt with. It was impossible to feel comfortable as to the patient's future, so long as the cervix remained impervious.

Accordingly, on August 27th, two days after the last operation, I again went to see my patient, with the object of either discovering a cervical canal or making an artificial one. The temperature that morning had, for the first time, been under 100°, the pulse being 92. On making a combined rectal and abdominal examination under chloroform, I found the retro-uterine swelling had become so much reduced in size that it could be mapped out distinctly as a tumour of the size of a hen's egg, situated behind and to the right side of the uterus. On compressing the tumour, a shreddy, purulent discharge escaped from the vagina. The cervix uteri expands from below upwards, its shape being consequently somewhat conical; its whole outer surface is shreddy and uneven. No os could be made out. A small exploring trocar was passed in the direction of the cervical canal, but without result. The cervix, therefore, being seized and held with a uterine tenaculum, and the fundus steadied by the hand of an assistant on the abdomen, the left forefinger was placed in the vagina as a guide, and a long narrow-

bladed knife passed along it up to the tip of the cervix, when it was pushed well forward into the cervix in the direction of the uterine axis. The upper part of the blade was now felt to move freely in all directions within the uterine cavity; it was thereupon partially withdrawn, and re-introduced several times, with the cutting edge directed first forwards, then backwards, then to the left side, and finally to the right, so as to make a free opening. The uterine sound was now passed along the flat part of the blade up to the fundus, its point being easily detected by a hand placed over the hypogastrium. The canal of the uterus was shown by the sound to be three inches in length; the upper part of the cavity was expanded, its walls firm, and its inner surface rough and uneven. A two-bladed cervical forceps, designed by Dr. Lloyd Roberts, was now introduced, and the opening enlarged by separating the blades. A small quantity of thick mucus and altered blood thereupon made its escape from the uterus. Finally, Hegar's dilators, Nos. 5 to 10, were passed successively with the utmost ease. The uterine cavity could then be readily explored with the finger; it was found quite empty.

A vulcanite stem pessary was left with Dr. Fox for occasional introduction to keep the cervical canal open.

September 1st.—Dr. Fox writes: "You will be pleased to hear that your case is progressing most satisfactorily. Appetite good; discharge much diminished and less offensive; aperture in uterus patent (I had my finger in the uterus to-day); vaginal dilator used twice a day for half an hour. Patient allowed to sit up in the room downstairs to-day, to allow of some purification of bed, clothes, and room. . . . "

Three weeks later, the patient's condition had become less satisfactory. Her appetite had failed; she was daily losing strength; the discharge had increased in quantity and become more offensive; the temperature was 103°; the pulse 140 and very feeble. Under these circumstances, Dr. Fox, learning that I was away from home, and feeling that some thing should be done at once, made a careful examination under chloroform and discovered, about an inch and a half within the vagina, on its posterior wall, a small opening from which a purulent discharge was welling up. Having satisfied himself that the opening did not communicate with the rectum, he proceeded to enlarge it, first with a knife

and afterwards with the fingers, so as to lay the cavity freely open. During the process there escaped about six ounces of fluid, consisting of pus and altered blood. The abscess-cavity had a smooth lining, and was situated between the uterus and the rectum.

On September 25th, the patient is reported to be generally improving. Since the abscess was evacuated the discharge has greatly diminished, and the temperature has remained continuously below 100°. At present, therefore, there is every likelihood that the case will end favourably.

Remarks.—It has been found necessary, in order to make this case intelligible, to report it in such detail that I have left myself but little space for comment. I trust my readers have been able to follow my description, in which case explanatory remarks are scarcely needed. I shall probably be expected, however, to express an opinion as to the nature of the retro-uterine swelling. It seems to me most reasonable to suppose that it was a hæmato-salpinx, produced directly or indirectly by the atresia of the uterus and vagina, and that its contents, after undergoing degenerative changes, had partially escaped through a small opening in the under surface of the tube, and, at the time of the operation, were making their way downwards through the right lateral fornix of the vagina.

The patient's general condition was evidently the result of chronic septic absorption.

Postscript, October 7th.—To-day, Dr. Fox writes: "Patient doing very well indeed, going out of doors every day."

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