A CASE OF RUPTURED EXTRA-UTERINE PREGNANCY; TUBAL MOLE; INTRA-PERITONEAL HÆMORRHAGE; ABDOMINAL SECTION; RECOVERY.

BY ARTHUR H. N. LEWERS, M.D. LOND.,
OBSTETRIC PHYSICIAN TO THE LONDON HOSPITAL.

A WOMAN, thirty-four years of age, who had been married eleven years was seen by me in consultation with Mr. R. Ambrose on March 19th, 1896, at 3.30 P.M. She had had two children, the last six years ago; both her confinements were quite natural. She had had one miscarriage at about the sixth or eighth week four years ago. She got up immediately after the miscarriage, but went back to bed two days afterwards, and remained in bed for six weeks. She was then admitted into a hospital and remained there for six weeks longer on account of what she was told was peritonitis. As regards her present illness, she had menstruated regularly every four weeks till about two months previously. Jan. 25th was the last day of the last period. From that time she "saw nothing" until March 19th, the day on which I was called in to see her. For two weeks previous to this date she had had constant pain in the right iliac region, and several attacks of slight faintness, but she had not been obliged to keep in bed. On March 19th when she got up, while she was dressing she was seized with severe pain in the right iliac region accompanied by a severe attack of faintness, and she had to be assisted back into bed. At this time she had a slight loss of blood, this being the first occurrence of any hæmorrhagic discharge since the last menstrual period (Jan. 25th). I saw her for the first time at 3.30 P.M. on March 19th, when the particulars of the case already given were obtained. The patient at that time was extremely pale, the pulse was 108, and there was a marked tendency to syncope on the slightest exertion. It happened that the head of the bed was towards the window, and, in order to make a more satisfactory examination, I had the patient moved so that her head was at the foot of the bed. While doing this she almost fainted away, the pulse stopping for a few seconds. On examining the abdomen there was some fulness about the hypogastric region, and an indistinct sensation of a swelling there and in the right iliac region. But the lower abdomen was extremely tender, so that no very complete examination could be made. On vaginal examination, there was a little recent blood in the vagina, the uterus was distinctly less movable than normal, and there was an indistinct swelling to the right of it. The breasts had an active appearance. It appeared to me that the case was one of ruptured tubal pregnancy, and as the surroundings of the patient were somewhat inconvenient in the event of operation I had the patient removed in an ambulance to the London Hospital. I saw her again at 9 P.M. on the same evening; her condition then was decidedly worse than when I had seen her earlier in the afternoon; the pulse especially was weaker and more frequent. It had been 108 in the afternoon at half-past three, whereas at nine o'clock it was 120 and decidedly smaller. I therefore decided that abdominal section was the right procedure, and the patient and her friends readily agreed that it should be done. On opening the abdomen, there was a large quantity of blood free in the peritoneal cavity; on passing the hand down to the right, the right tube was drawn up to the wound, and was seen to be considerably enlarged. There was a rent in it somewhat anteriorly, from which a spongy substance was protruding; at this point bleeding was still going on. The uterine appendages on the right side were then removed in the usual way; the uterus was observed to be considerably and uniformly enlarged, and, indeed, as one has observed in several similar cases, had all the appearance of the pregnant uterus. On examining the appendages on the left side, it was found that these were by no means normal, for the left Fallopian tube was considerably dilated, being an inch or more in diameter, and accordingly I also removed the appendages on the left side. The abdomen was washed out with warm saline solution repeatedly, till all the clot and blood which had been effused seemed to have been washed away. A Keith's tube was inserted, and the abdominal wound closed in the usual manner. The patient made an uninterrupted recovery; the temperature after the operation was only once above 101° F., and that on March 22nd. I saw this patient on the 28th May, when she came to report herself at the hospital; she was then quite well, and the abdominal wound was soundly healed.

On examining the appendages removed, there was a large corpus luteum in the right ovary about three-quarters of an inch in diameter; the right tube had, as already mentioned, ruptured anteriorly, and from the rent a small portion of spongy tissue was projecting. Subsequent examination of a section of this spongy tissue showed that it contained an abundance of chorionic villi. The tube itself contained a hard clot, which, before the tube was opened, felt as if it might have been a fœtus; but no fœtus was found. The fimbriated extremity of the right tube was open. The left Fallopian tube, which was considerably dilated also, was found on section to contain a firm blood-clot. The wall of the left tube was extremely thin, very much thinner than the wall of the right Fallopian tube. The left ovary was somewhat large, but contained no corpus luteum. The fimbriated extremity of the left tube was closed.

Remarks.—There are several points of interest about this case. With reference to the etiology it will be seen that as regards the age and as regards the antecedent period of sterility the case was in accord with what one generally expects to find, for she was thirty-four years of age, and most cases of extra-uterine pregnancy are not younger than twenty-eight years of age. The antecedent period of sterility was considerable, the last child had been born six years before her present illness, and there was a history of one — perhaps somewhat doubtful — miscarriage four years before the present illness. The case was one, it will be seen at once, in which a diagnosis of extra-uterine pregnancy was easily made. There had been attacks of pain and slight faintness for a fortnight before the actual rupture; there was a history of two months' absolute amenorrhœa, no hæmorrhage from the vagina occurring till the morning of the day on which I saw the patient, and the quantity lost by the vagina was trivial. There was, on the other hand, the fact that when I saw the patient she was evidently extremely ill; the slight disturbance involved in moving her round from the head to the foot of the bed was sufficient to cause her almost to faint away, and to temporarily stop the pulse. She was markedly anæmic and there had been no loss of blood from the vagina that could for a moment be supposed to have caused the state of anæmia that was actually present. There was extreme tenderness about the lower abdomen. I have observed this in some other similar cases, and it appears to me to be a symptom of considerable significance. The enlargement of the uterus and the presence of some indistinct swelling to the right of it, as well as the active condition of the breasts, completed the evidence on which the diagnosis followed. At the same time, although one arrived at the diagnosis of ruptured extra-uterine pregnancy, the question of operative interference was still one that seemed to require a little deliberation. Undoubtedly in a certain proportion of cases, expectant treatment has been followed by the recovery of the patient. It is generally recognised that a large proportion of cases known as pelvic hæmatocele are really due to ruptured tubal pregnancy, and it is also well known that the large majority of cases in which a diagnosis of pelvic hæmatocele only was arrived at in former years used ultimately to recover without any operative treatment, from which it would seem to logically follow that operative treatment in tubal pregnancy is rarely, if ever, necessary, which at the present day may be regarded as a *reductio ad absurdum*. The truth probably is that a large proportion of the cases in which operative treatment is now undertaken, in former days died either directly from hæmorrhage or secondarily from peritonitis in circumstances in which no satisfactory examination likely to discover the cause of death could be obtained. No doubt many of them died at home, and the natural objection of the friends to any post-mortem examination led to the cause of death in many cases remaining a matter of conjecture. The less serious cases were those that ultimately came under observation, and were clinically grouped as cases of pelvic hæmatocele; and there is no doubt at all that the larger proportion of such cases do ultimately get well without interference. I have myself seen a great many such. The present case that I have just recorded seems to me an instance in point. If the friends had refused to allow of an operation or to allow of her being removed to the hospital

the probability—in my mind amounting to certainty—is that she would have died, and died at home; and if the friends had objected to allow an examination of the body, it would have been open to them to do so and the true nature of the case must have remained doubtful. When I saw her in the first instance, having arrived at the diagnosis of ruptured tubal pregnancy, I thought it extremely likely that abdominal section would be necessary; but I waited for about six hours with a view to testing whether the anæmia was, so to speak, progressive. The delay was, from the point of view of deciding as to operation, of considerable value, because there could be no question at all that her condition was very much more serious at 9 o'clock than it was at half-past three. This was shown by the increased frequency and diminished volume of the pulse. Another point of some interest in the case is the fact that an intra-peritoneal hæmorrhage due to rupture of the tube was produced by a tubal mole—that is to say, by an ovum situated in the tube degenerated into a mole which might *a priori* naturally be considered to be in a stationary or indeed retrogressive condition; but the case shows clearly that the death of the ovum and its degeneration into a mole are not necessarily followed by a condition of safety to the patient. There can be no doubt that the degeneration of the ovum into a mole was a condition that had existed for, relatively, a considerable time, perhaps two or three or more weeks, and with the death of the ovum it might have been expected after that period that no further danger would arise; yet, in fact, the rupture of the tube and serious intra-peritoneal hæmorrhage as above mentioned occurred. The condition of the opposite tube was one of some interest, as it was considerably dilated, its fimbriated extremity occluded, and it contained a firm brick-red clot. The wall of the tube on that side was very thin; the corpus luteum in the right ovary, although perfectly distinct, was of a fairly homogeneous appearance, and did not show the well-known convoluted margin. As regards the actual operation, the complete cleansing of the peritoneum from blood and clot by repeated washing is no doubt an important point to attend to, and, for my part, owing to the great difficulty, no matter how carefully the washing is done, of really getting away every fragment of clot, I think it is desirable to use a Keith's drainage-tube in cases of this class. In the cases that have come under my observation the convalescence has been much more rapid when a Keith's tube has been used than when the abdomen has been closed without drainage.

The general history of the case, the actual condition of the uterus as seen at the operation, the corpus luteum in the ovary, and the condition of the right Fallopian tube on inspection, make the diagnosis of tubal pregnancy practically certain; but it is no doubt always desirable when the fœtus is not discovered to examine portions of the contents of the tube under the microscope for chorionic villi. In the present case sections of the mass in the tube showed chorionic villi in abundance.

Harley-street, W.

ANTERIOR COLPOTOMY AND VAGINAL FIXATION.

BY WILLIAM J. GOW, M.D. LOND.,

PHYSICIAN-ACCOUCHEUR TO OUT-PATIENTS, ST. MARY'S HOSPITAL; OBSTETRIC PHYSICIAN TO THE ROYAL HOSPITAL FOR WOMEN AND CHILDREN, AND TO THE METROPOLITAN HOSPITAL.

ANTERIOR colpotomy, or the method of reaching the peritoneal cavity through an incision made in the upper part of the anterior vaginal vault, is performed with one of three objects in view: (1) As a means of exploring the condition of the ovaries and tubes in certain cases where their condition is doubtful; (2) for the purpose of removing the uterine appendages on one or both sides, provided that the diseased appendages are not greatly enlarged or very firmly adherent; and (3) for the purpose of overcoming retroversion and retroflexion by means of vaginal fixation. The incision, which may be either transverse or longitudinal, gives great scope for the exploration of the pelvic organs, as not only can the finger be introduced through the opening made and the parts be thus carefully mapped out, but by making traction on the uterine body with volsella forceps the uterus, tubes, and ovaries can generally without difficulty be drawn outside the vulva. The slighter degrees of salpingitis can thus be recognised, and if the abdominal ostia are closed an excellent opportunity is offered for the formation of an artificial opening. The ovaries, also, can be thoroughly examined and unsuspected adhesions can be diagnosed and broken down by the finger. Through this incision it is possible to remove the ovaries and tubes, but when it is deemed necessary to extirpate the appendages on account of severe inflammatory disease I believe that the abdominal route is the safest and best, and it is unwise for anyone to attempt the removal of an enlarged and adherent tube by this method unless in case of failure he is prepared to carry out the operation to its completion by abdominal section. In cases of bilateral tubal disease where the ovaries and tubes are enlarged to the size of an orange, abdominal section is by far the most satisfactory method for their removal, but in certain cases where the ovary on one side is enlarged to two or three times its natural size, lies low down and is markedly tender, besides being the seat of much pain, if its removal is decided on the vaginal route may be chosen with advantage. Not only is it easy to remove an ovary under such circumstances, but the absence of an abdominal scar is a matter not to be lightly passed over. No one can lay down any absolute rule as to when it is possible and when it is not possible to remove inflamed appendages by this method, because the factors concerned are not merely the size and adherence of the ovaries and tubes to be removed, but also the capaciousness of the vagina. Thus in a multipara it would be possible to remove a closely adherent appendage, whilst in a nullipara such a feat would be very difficult or altogether impossible. Speaking generally, however, if there is much matting of the parts and a history of recent pelvic inflammation, the abdominal route is much the safest and surest line of attack.

Among the thirteen cases in which I have performed anterior colpotomy the operation was once undertaken for the purpose of exploration and once for the removal of a tender and painful ovary, but in the remaining eleven cases vaginal fixation was performed, although in several instances one of the appendages was removed before the uterus was made fast to the anterior vaginal wall. On the merits of vaginal fixation I am not prepared to speak definitely because it is an operation which in this country at least has not been performed sufficiently often to admit of any very dogmatic statement being made. Some of my patients, however, have been so remarkably improved by the operation that I cannot help feeling that in certain cases it will hold its ground. The vast proportion of women in whom the uterus is retroverted and retroflexed present few or no symptoms, and of course for such cases the operation is quite unsuitable. In others where combined with the retroflexion there is considerable descent and an accompanying bearing down sensation some form of pessary gives relief. The class of case in which I have obtained the best results from vaginal fixation is the following. Young married women are not infrequently met with who present themselves for treatment on account of dyspareunia. The vagina is often short, and the uterus is found to be in a position of retroflexion with the fundus lying in Douglas's pouch. On making pressure with the examining finger on the fundus uteri great pain is complained of, and owing to the shortness of the vagina and the tenderness of the uterine body no form of pessary can be borne. In Case 4 these symptoms, together with severe dysmenorrhœa, were complained of. The dyspareunia was so great that it completely prevented coitus, and the patient was consequently greatly depressed, and there was considerable impairment of her general health. Anterior colpotomy followed by vaginal fixation was performed, and the patient about five weeks later came back to the hospital in the best of spirits and stated that she was completely cured of her dyspareunia and that she had just completed a menstrual period which for the first time in her life had been unaccompanied by pain. It is important to add that in no other case in which dysmenorrhœa was present have I observed any improvement in this condition follow on vaginal fixation. A case such as this forbids one to dismiss the operation of vaginal fixation as altogether worthless. The only thing that was done was to convert a retroflected uterus into a slightly anteflexed one, but by so doing it prevented any pressure being exerted on the uterine body during coitus and so cured the dyspareunia. In the class of case above described it is quite common to find evidence of tubal and ovarian inflammation, and the anterior