

VII. LAPAROTOMY FOR EXTRA-UTERINE GESTATION TWO AND A HALF MONTHS AFTER THE DEATH OF THE FŒTUS AT FIVE AND A HALF MONTHS.

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THE greater rarity of cases of operative interference at this period of extra-uterine gestation, and the points raised as to time and mode of operating, make the following case of interest:—

Mrs A. B., æt. 32, was sent in to Ward 28 by Dr C. L. Fraser of Berwick in August last, complaining of swelling of the abdomen and pain in the right leg. Her previous history, per Dr Eyre's report, is as follows:—She began to menstruate when 12 years of age. She was perfectly regular till at 17 she became pregnant. Her periods usually lasted four or five days. After the child was born she settled down again to her former regularity, and remained regular till her marriage, which took place two years ago last January. Two months after marriage she ceased to menstruate, and in the following June had a miscarriage.

Eight or nine months later she had another miscarriage. Both miscarriages occurred at or about the third month. After this she was regular again till January 1896. On the 27th of January there was a discharge of blood, which the patient considered a normal period. On the evening of the 7th of February, as patient was sitting at the fireside, the work of a by no means laborious day finished, she was suddenly seized with a feeling of sickness, accompanied by pain in the right side, followed by vomiting. She was put to bed; the slightest movement of the right leg caused her great pain. The doctor was sent for. He ordered poultices, and prescribed pills, which deadened the pain. Patient remained in bed a week, still troubled by pain, and occasionally vomiting. During the next three weeks patient got about a little. Then suddenly an attack, in all respects coinciding with the first, even to the hour and mode of onset, struck her down again. It ran a course similar to the first attack. As before, she recovered sufficiently to go about her daily duties, never feeling quite herself, and always pulled up by pain in the side whenever she attempted to exert herself.

At this time, owing to the amenorrhœa and a gradually enlarging tumour in her abdomen, patient thought that she was pregnant.

In February, after the first of the above described attacks, a tumour the size of a hen's egg appeared in the right iliac region, and went on gradually increasing in size. In March she noticed a swelling in the left hypochondrium, which grew downwards. In May she felt quickening in the latter swelling, and then made certain that she was pregnant. Movements were felt for about three weeks; she did not feel them after the attack on June 18. On June 18, at 1.30 in the afternoon, as patient sat sewing after

dinner, she turned giddy, vomited, fell unconscious to the floor, and remained oblivious to her surroundings till 8 o'clock in the evening. From that day till the day of her admission to the Infirmary she kept her bed, now better, now worse, exacerbations of the pain being accompanied by vomiting. The two swellings referred to increased during these two months. A day or two after this attack a pale bloody discharge escaped per vaginam containing shreds like skin. A similar discharge took place just before her admission. Neither lasted more than three days, and the amount of discharge was on both occasions small. Micturition normal. Abdominal examination revealed a large tumour, irregular in outline, reaching to within an inch of the umbilicus. On the left side it extends to a point 3 inches from the middle line; on the right it fills up the iliac fossa. It is dull on percussion; solid at some points, cystic at others.

There is a well-marked *linea nigra*.

Per vaginam a large mass can be felt bulging into the posterior fornix; in the right fornix a small nodular body about the size of a hazel-nut is felt. The uterus is to the front, and apparently continuous with the tumour.

September 11.—The patient having recovered from an attack of severe pain, and the tumour having increased in size, suspecting a hæmorrhage to have taken place, I cut down. The abdomen having been opened, a tumour was found extending upwards into the right hypochondriac region, the uterus lying in front of it, apparently not enlarged, just behind the right pectineal eminence. The tumour was covered with peritoneum of a dark colour, and was of boggy consistence. It was free in front and at the left side, but above was adherent to the omentum, while the peritoneum was lifted up in the right iliac fossa. Below it extended into the pelvis, the peritoneum dipping down between it and the fundus uteri for a short distance. The sac was stitched by interrupted sutures to the abdominal incision. Two silk ligatures at each end of the abdominal incision were also passed through the sac wall, and by means of them the sides of the incision were drawn in at its two extremities.

The sac, being now shut off from the peritoneal cavity, was tapped, first with an aspirator, but no fluid escaped, then with a knife. The sac wall was thin and pliable. Firm blood-clot was first encountered; this was lifted out in large dry lumps. From the lower part of the sac lumps of placental tissue were removed, also dry and bloodless. Deep down in the pouch of Douglas recent blood-clot was found and removed. At the upper part of the cavity which remained after removal of the clot and placental tissue the limbs of a foetus were found. Traction was made upon these, and a mummified foetus covered with a yellow vernix caseosa was extracted with some difficulty. The foetus was lying in a large diverticulum, which extended up into the right hypochondrium,

and formed the upper portion of the abdominal swelling; the secondary sac seemed to be intra-peritoneal; the rest of the placental tissue was carefully removed, and the whole cavity washed out with a weak antiseptic. There was a little bleeding, which was easily controlled, and both the cavities were packed with iodoform gauze. The abdominal incision, with the exception of two inches about its middle, was then closed.

The foetus was mummified, measured $12\frac{1}{2}$ ins. in length, and to all appearance had been dead some time.

September 14.—Gauze was removed and the sac washed out with weak boracic (1-40), and a drainage-tube inserted.

September 30.—Since 14th, cavity has been washed out twice daily and tube shortened.

For the two days following the operation the temperature varied from 99° to $100^{\circ}2$, and pulse from 92 to 110. On the third day the gauze was removed, the sac washed out with weak boracic (1-40), and the drainage-tube inserted. On the four following days the temperature ranged from 98° to 100° , and the pulse from 82 to 96. After this there was slight rise in temperature for a week, and subsequently nothing worthy of note in her general condition. During the following month the sac was washed out with boracic, and sometimes with iodine, and contracted to a mere sinus, which closed shortly after the patient went home in the beginning of November. By bimanual the uterus was found to the right and front rather higher in the pelvis than usual, but freely movable. No deposit was recognisable per vaginam, but there was an indistinct fullness felt by abdominal hand over the cicatrix.

This is a case of extra-uterine gestation which had gone on to the fifth and sixth month, as shown by the length of the foetus ($12\frac{1}{2}$ ins.) and the fact that foetal movements were felt for three weeks. The hæmorrhage mentioned at the end of January was not menstrual, as the first symptoms of rupture occurred a fortnight later. These had the usual character of being sudden, unprovoked, and abdominal. Vomiting during the first and subsequent attack (three weeks later) was marked, as it is occasionally in cases of extra-uterine gestation, which makes them resemble irritant poisoning. The cause of vomiting is not clear. To say that it is reflex does not explain it, for it is not evident why hæmorrhage into the pelvic cellular tissue or peritoneum should in this special instance excite it. This clinical fact is of the first importance; it diverts the attention from the pelvis to the epigastric region, and leads to such cases being diagnosed and treated as irritant poisoning.

The patient was able to go about, and the case was considered one of ordinary pregnancy until the violent onset of symptoms, when she was apparently between the fifth and sixth month, from which she never entirely recovered until the operation. It is inter-

esting to note that the birth of the foetus was associated with the symptom of considerable internal hæmorrhage.

This case raises two points of importance with regard to treatment, viz., the best time for operating and the mode of treating the sac. While there is difference of opinion as to the desirability of immediate operation in cases of rupture during the early months, it is generally accepted that in the later months, if the foetus is dead, we should wait for a certain amount of atrophy of the placenta. I say, if it is dead, for if it is alive the question of interfering in its interest is still *sub lite*.

While there is agreement as to the advantage of delay, there is a divergence of opinion as to how long we should wait, some advising one, others three months, while others would postpone it till symptoms calling for interference arise.

The cases of laparotomy during the later months of extra-uterine gestation—that is to say, after distinct evidence of the life of the foetus, from $4\frac{1}{2}$ months onwards—are not so frequent as one would imagine. From our own *Transactions*, with the help of Dr J. W. Ballantyne's valuable index, I have collected only seven—recorded by Drs M'Dougal, Freund, Angus Macdonald, Moss, Underhill, Halliday Croom, and myself. The period at which the operation was done varied from five days to six months after the death of the foetus. Dr Morrison's case, reported by Dr Underhill, in which the operation was done seven days after, and the patient died from hæmorrhage through the placenta being cut into, shows the danger of too early operation; while Dr Angus Macdonald's case of laparotomy six months after its death, and where a fæcal fistula had formed communicating with the sac, shows one drawback to postponing interference too long. The immediate reasons for interference may be given as—pain, sepsis, and hæmorrhage.

Pain by itself is rare as an indication; it is almost always combined with sepsis, as in Angus Macdonald's case. Sepsis, which generally appears in the records as feverishness with gradual emaciation, furnishes, as one would expect, in almost all the cases, the indication for operative interference. Including the two cases brought before you this evening by Dr Moss and myself, we have eleven, in only one of which, namely, my own, internal hæmorrhage was the reason. This case, therefore, brings out the fact that, against the greater safety from placental hæmorrhage gained by waiting, we must set a risk arising to the patient from internal hæmorrhage. By placental hæmorrhage I mean hæmorrhage due to cutting into the placenta in opening the sac, or due to detachment of the placenta. It is not evident where the bleeding came from in this case, as the portions of placenta removed were not vascular. There may have been a portion deep down in the pelvis which retained its vascularity, although there is no distinct proof of this.

As regards the treatment of the sac, I attribute the result in this

operation largely to the careful stitching of it to the abdominal incision *before* cutting into it. By so doing, the operation was made practically extra-peritoneal, the advantage of which was referred to by Dr Halliday Croom in his recent paper. By this procedure I was able to use freedom in evacuating the contents of the sac and in washing it out, without any fear of matter escaping into the peritoneal cavity. Further, the stitching of the sac to the abdominal wall was more easily done than after evacuation of the contents, when the ragged, friable margins of the sac are stitched with difficulty, and often hurriedly to complete the operation.

In the discussion on the treatment of extra-uterine gestation at this period before the London Obstetrical Society, Dr Herman and Dr Cullingworth both held that the ligature of the sac to the edges of the abdominal incision was unnecessary, the latter stating that "the custom was a relic of the traditional dread of the peritoneum, and might be abandoned with advantage." In this one cannot entirely agree with them. And that there is a dread of the peritoneum which is more than traditional, is apparent from Dr Herman's statement that the lymph exuded round the strip of gauze shuts off the general peritoneal cavity quite as well as it would be shut off were the cyst wall stitched to the margin of the wound, and from the care taken to prevent the escape of matter into the peritoneal cavity during the operation. After the operation also we can use greater freedom in removing the packing and washing out the sac (should occasion arise for this) if it has been stitched in the incision. The chief advantage of this method, however, is that it prevents the escape of fluids into the peritoneal cavity *during the operation*.

Prof. Simpson said both of the communications that had been read by Dr Barbour were of the greatest interest. Dr Moss was to be congratulated on having so successfully recognised and dealt with his cases in his mission field. The manner in which Dr Barbour had discussed the proper data and mode of dealing with cases of advanced extra-uterine gestation was very instructive, and would lead to the stitching of the cyst wall to the abdominal cavity as a preliminary to its being opened becoming the established rule of practice.

Dr Haultain thought there were some points which contra-indicated the stitching of the sac to the abdominal wall before incising into it. Firstly, one would require to be absolutely certain of the diagnosis of extra-uterine gestation, which was by no means always possible; and, secondly, the stitching of the sac precluded the idea of removal, a step which was occasionally indicated according to its attachment. Further, severe hæmorrhage from the placental site might be controlled only by ligature of vessels entering the sac wall, and to do this the stitches would require to be removed before attempts at such could be made, and

thus the operation might be unduly prolonged. On the other hand, he fully appreciated the early stitching of the sac to the abdominal wall as of value in preventing the soiling of the peritoneum; and further, as being much easier before incision than after, as from contraction of the sac after removal of its contents he had found approximation by stitches a very difficult matter.

Dr Barbour replied.

MEETING IV.—FEBRUARY 10, 1897.

Dr MILNE MURRAY, *Vice-President*, and afterwards Dr FREELAND BARBOUR, *in the Chair*.

I. The following gentlemen were duly elected Ordinary Fellows of the Society at the Meeting on December 9, 1896:—James Curtis Whyte, M.B. C.M., Dalkeith; Hugh Eyres, M.B. C.M., Royal Infirmary, Edinburgh; G. H. Simla Paterson, M.B. C.M., Glengyle Terrace, Edinburgh; W. R. Martin, M.B. C.M., Weston, Haddington; R. H. Watson, M.A., M.B. C.M., Burnlea, Bent Road, Hamilton; T. M. Callender, M.B. C.M., Inverard, Inverleith Gardens; L. Grant, M.B. C.M., Royal Infirmary, Edinburgh. Elected at the Meeting on January 13, 1897:—Robert Robertson, M.B. C.M., 34 Raeburn Place, Edinburgh; James Wilkie, M.A., L.R.C.P. & S., L.F.P.S., Selville House, Portobello; A. Graham, M.D., Currie; Douglas Watson, M.B. C.M., 19 Rutland Street. Elected at the Meeting on February 10, 1897:—Robert Mair, M.D., Hawick; Roderick M. Matheson, M.B. C.M., 41 George Square.

II. *Dr R. C. Bvist* showed A VELAMENTOUS PLACENTA, and gave the following details regarding it:—The placenta, for which I am indebted to Dr Mackie Whyte, who got it at a normal labour in a primipara aged 23, is divided by a well-marked furrow, where the placental tissue is thin but not absent, into two lobes, 9 and 11 cms. broad respectively, and 15 cms. long. The umbilical cord, 55 cms. long, is inserted on the membranes, 10 cms. from the margin of the larger lobe. The vessels break up into three groups, one passes almost directly to the edge of the larger lobe, on the surface of which it is distributed, one running a course of 18 cms. inserted on the further lobe, and the third separates to give branches to each lobe. This last group has the longest branches, one of them reaching the edge of the placenta at a distance 25 cms. from the insertion of the cord. There are several vasa aberrantia, one of which runs alongside of the aperture in the membranes, the direction of rupture of which it probably determined. The rupture of the membranes has advanced close to the root of the cord. The nearness of the vessels to the rupture illustrates the risk of hæmorrhage in these