NOTES OF A CASE OF EXTRA-UTERINE GESTATION.

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ABOUT a year ago, Mr. Jessop of Leeds brought before the Obstetrical Society the particulars of a case of extra-uterine gestation, in which, by abdominal section, he saved the lives of both mother and child. In the discussion which followed, very various opinions were expressed. On the one hand, the President considered that the success which had attended Mr. Jessop's admirable operation—a success unique so far as this country is concerned—must not be taken as furnishing a precedent for abdominal section in other cases in which the symptoms were less urgent. On the other hand, Dr. Meadows held that where it was evident that not only a living but a viable child existed in the abdomen of its mother, it was our bounden duty to interfere; and expressed the hope that Mr. Jessop's case would be the starting point of a new practice. Among authors, equally various opinions are to be found. The majority of English writers disapprove, while some of the highest authorities on the Continent strongly advocate, the operation of primary gastrotomy. The particulars of the following case are placed upon record as a contribution towards the further consideration of this important question.

M. W., aged 39, was admitted into St. Thomas's Hospital, August 27th, 1877. She had had eight children, the youngest being a little over two years old. From that time up to the end of February of this year, menstruation had been regular, and her health good. During this last menstruation, which ended February 28th, she had suffered an unusual amount of pain, with vomiting, and both the pain and sickness continued for several days after the period ceased; and since then, up to seven weeks previous to her admission, she had had every eight or nine days an attack of uterine hæmorrhage, accompanied with more or less sickness and abdominal pain. In addition to these irregular hæmorrhages and the increase in size which she believed to be due to her pregnancy, she had had more or less constant and sometimes severe pain in the lower abdomen; and it was for this she more especially sought advice as an out-patient under Dr. Harley, under whose care she had been previous to her admission. I saw her for the first time on September 1st. Her general health was fairly good, but her appetite was poor, and her aspect somewhat anxious and worn. On examination of the abdomen, it was seen to be occupied on the left side by an enlargement of more or less irregularly oval contour, rising above to within a finger's breadth of the lower margin of the ribs; on the left side passing far back into the lumbar region; on the right, reaching to within an inch of the median line; and below, separated by a resonant sulcus from a rounded body rising some three inches into the left inguinal region, and which further examination showed to be the uterus. Lastly, in the hypogastric region was a not well defined area, somewhat resistant on pressure, dull on percussion, and in which now and again a blowing sound of the character of the placental *bruit* could be heard. The foetal heart-sounds were heard most distinctly just above and two inches to the left of the umbilicus. On vaginal examination, the cervix uteri, somewhat developed, was found pressed towards the left and a little higher in the pelvis than normal. By bimanual examination, the rounded body about the size of the fist referred to as perceptible in the left inguinal region was found to be continuous with the cervix, and evidently the fundus of the uterus. The sound was not passed on this occasion, and I may add that in all examinations of the abdomen, the greatest gentleness was used, it being anxiously desired not to endanger the cyst nor prematurely arouse any uterine action. Occupying more than the right half of the pelvis, and so pushing the uterus towards the left, was a rounded swelling entering from above, somewhat tense, but without any well defined margin, corresponding in character with the dull area already referred to as existing above the pubes.

The diagnosis, therefore, of extra-uterine gestation appeared complete. There was evidently a child in the abdomen, for its heart-sounds could be heard and its movements felt; and as by conjoint manipulation, the body felt in the left inguinal region could be pronounced to be uterus, it was apparent that the child could not be *in utero*. The less defined swelling occupying the hypogastric region to the right of the uterus, and in which an occasional blowing sound could be detected, was considered, and as the event proved, rightly, to be placenta. The circumference of the abdomen at the umbilicus was $32\frac{3}{4}$ inches; from the umbilicus to the right anterior superior spine of the ilium was $7\frac{1}{4}$ inches; and from the umbilicus to the left spine 8 inches. Judging from the severe vomiting which occurred almost

immediately after the cessation of the catamenia on February 28th, that conception took place at that time (if not, indeed, just before, the period itself having been unusually painful), she would now be entering the seventh month of her pregnancy. Her pulse was 96; her temperature but little above normal. The bowels were generally confined. For a month after her admission, but little change beyond a gradual increase in size took place, and a gradual assumption by the fetus of a somewhat more central position. The measurements on the 22nd were as follows: The circumference of the abdomen at the umbilicus was 34 inches; from the umbilicus to the right anterior spine the measurement was $7\frac{1}{4}$ inches; the corresponding measurement on the left side was $8\frac{3}{4}$ inches.

On September 27th, she had a severe attack of vomiting, with great abdominal pain, increasing especially with all foetal movements; and from this time to the date of the operation, she had to be kept more or less constantly under the influence of morphia. Vomiting continued from the 27th to October 5th. The bowels were only relieved by enemata. The urine contained for a few days a small amount of albumen.

On October 25th, she had another very violent attack of vomiting and abdominal pain; and so excessive were the movements of the fetus, and so great the prostration, that we were extremely anxious both as regards the probability of the cyst giving way and the effect on her general health. Fortunately, this attack lasted but twenty-four hours, yielding then to large doses of sedative; but it left her very distinctly weakened. Up to this period, my inclination had been not to operate until symptoms of danger arose, either from rupture of the cyst, or in connection with the death of the child, or from progressive exhaustion of the mother; but after considering the matter very carefully with Mr. Mac Cormac, my surgical colleague for the current three months (and whose kind and valuable assistance throughout I beg sincerely to acknowledge), and encouraged by the successful issue of Mr. Jessop's case, it was decided to operate without further delay. The grounds of our decision were these. That it was scarcely possible to expect but that in some of these attacks of convulsive foetal movement the cyst would rupture, peritonitis ensue, and the patient's chance of recovery after gastrotomy be thus proportionately lessened. That in addition to this risk of rupture, which might occur at any moment, these attacks of severe pain and vomiting were very evidently telling upon the patient's strength, and each left her in a less good position to contend with the risks of operation or those other risks unavoidably associated with the case. That as from the stationary position maintained by the child in the abdomen, there could be little doubt it was encysted, and as it was in no way intended to interfere with the placenta, the operation itself would be even less formidable than the majority of the operations of ovariectomy. That in operating prior to the death of the fetus, there would be gained the avoidance of the risk of septic infection from putrefactive foetal changes. And lastly, there was the possibility of saving two lives, the fetus being not only alive but viable.

Having arrived at this decision, on November 3rd, I passed the sound into the uterus, and so finally verified its distinctness from the foetal tumour. The circumference of the abdomen at the umbilicus at this date was $35\frac{1}{2}$ inches; from the ensiform cartilage to the pubes measured $14\frac{1}{2}$ inches; from the umbilicus to the left anterior spine, 9 inches; and the corresponding measurement on the right side was $8\frac{3}{4}$ inches. The foetal heart-sounds were still most distinct a little above and to the left of the umbilicus; their average beat was 144 in the minute. The hard and rounded foetal head was to the right of the median line and below the level of the umbilicus, and the greater part of the body of the child occupying the left half of the abdomen, it was concluded that the prominence felt above the umbilicus on the left was the summit of the left shoulder, that the back looked towards the left, that the abdomen was to the right, the head bent downwards and forwards, and the feet and breech resting against the placenta occupying the lower extremity of the cyst. Examination internally showed no particular change beyond an increased softness and fullness above the cervix and a patulous condition of the os sufficient to admit the finger to pass up to but not through the internal os. On the night of November 3rd, she had another severe attack of convulsive pain; but it was of shorter duration than those preceding.

On November 5th, at 3 P.M., I proceeded to operate in the small ward of Adelaide, kindly and efficiently aided by Mr. Mac Cormac and Dr. Cory, and my clinical clerks Mr. Tennant and Mr. Benington. Among others present were Mr. Croft, Mr. Mason, Dr. Harley, Dr. Greenfield, Dr. Bantock (to whom I am much indebted for many suggestions both before and after the operation), Dr. Galabin, Dr. Crosby, Dr. Sharkey, Mr. Clutton, Mr. Stewart, Mr. Chaldecott, and the majority of the resident staff and senior students of the Hospital.

The patient was placed under the influence of ether by Mr. Gimlette, the resident accoucheur. The incision through the abdominal wall was made in the median line, and extended from two inches above to four inches below the umbilicus. One small vessel had to be ligatured. On opening the peritoneal cavity, the head of the child came into view through a thin semitransparent cyst wall of greenish hue. The upper part of the cyst was overlapped by the omentum, and in front of the lower part appeared the fundus of the uterus. The omentum was somewhat dark in colour, but though overlying the cyst was anteriorly unadherent to it. Such of the peritoneum as was exposed appeared also dark and somewhat dull. Laterally, between the cyst and the abdominal viscera and between the cyst and the omentum, many adhesions existed. It was then attempted to tap the cyst by Mr. Wells's ovariectomy trocar, but its tissue was so soft and lacerable that the amniotic fluid escaped, although, in no great quantity, by the side of the cannula. It was of a pale straw colour, and was at once soaked up by carbolised sponges. The placenta was seen to occupy the right iliac fossa, dipping into the pelvis and coming forward also at the front of the lower portion of the cyst. The opening in the cyst made by the trocar was then enlarged by scissors above and below, and the child carefully extracted by the head. The funis was tied and divided. The child was a female, and well developed. Its position in the abdomen did not entirely correspond with our anticipations. It occupied nearly the dorso-anterior position, with the head thrown back against and behind its left shoulder, while the right shoulder, considerably the highest part of its body, was, in fact, the prominence which had been felt above the level of the umbilicus on the left side and thought to be the left shoulder. Some hæmorrhage was then found to proceed from the cyst-wall at the lower angle of the opening made in it, where this approached very near the front edge of the placenta. Two ligatures, however, applied by Mr. Mac Cormac, effectually controlled it, and what blood had escaped into the cyst cavity was removed by sponges. The omentum and intestines were then kept back by carbolised sponges, while the usual sutures were being passed through the margins of the abdominal incision; seven in all were used. The two lower sutures on either side were taken also through the edges of the cyst, but with little hope of their holding on account of the soft thin character of the cyst-wall. The funis was brought out at the lower angle of the abdominal wound, and by its side a large-sized drainage tube passed to the bottom of the cyst. This was done before finally tightening the lower sutures. When the apposition of the edges was completed, a layer of salicylised wool was placed over the wound and packed around the funis and drainage-tube. Broad strips of strapping were then applied over the whole of the front of the abdomen. A conical sponge wrung out in carbolic solution was placed over the drainage-tube, covered by oiled silk, and kept in place by strapping, and a flannel bandage adapted over all. Immediately after the operation, half a drachm of laudanum was injected into the rectum. Temperature, 100.2 deg.; pulse, 120.—9.30 P.M. She complained much of pain in the back; relieved somewhat by rearranging the pillows. Since the operation, she had vomited bilious fluids two or three times. The rectal injection was repeated.—11.30 P.M. The vomiting had continued to trouble her much during the last two hours, the fluid ejected being of a dark brown colour. She was very restless, and still complained chiefly of the pain in her back. Mr. Gimlette, who had special charge of the case in my absence, and whose care was unremitting, administered a third of a grain of morphia subcutaneously. He removed also the sponge and withdrew from the drainage-tube by a syringe about two drachms of reddish serum.

November 6th, 4.30 A.M. Since the last note, she slept three hours and a half, only rousing two or three times to ask for ice. She still complained of the pain in her back. Temperature 100.2 deg.; pulse 108. Her urine was drawn off; it was high-coloured and scanty. The hypodermic injection was repeated.—7.30 A.M. She had slept at intervals since half-past four; but still referred to the back as the chief seat of pain. About three drachms of reddish serum were withdrawn from the drainage-tube, but some had escaped by its side and soaked into the cotton-wool and strapping. The hypodermic injection was repeated. At 9.30 A.M., she was feeling much more comfortable. She had vomited once about half a pint of yellowish fluid. Temperature 101.4 deg.; pulse 120. The morphia-injection was repeated.—12.30. She had been sick once since the last note. She complained of pain in the abdomen as well as in the back. Temperature 102.8 deg.; pulse 144. At 2.30, she was more comfortable; there was no sickness, but one slight attack of retching. Temperature 101.6 deg.; pulse 120. Three drachms of sanguineous fluid were removed from the drainage-tube. The morphia-injection was repeated. Up to this time, nothing but iced water had been given; to this now milk was

added, and some beef-tea was injected into the rectum. At 6 P.M., she was still comfortable, and slept for about an hour and a half. There was no vomiting. Temperature 101.4 deg.; pulse 126. Morphia was given hypodermically. At 9 P.M., she was still comfortable and dozing. Temperature 102.4 deg.; pulse 130. At 11.30 P.M., she had slept for about an hour. There was no more vomiting or retching; no pain was complained of. Temperature 102.4 deg.; pulse 126. About three drachms of red fluid were again withdrawn from the drainage-tube, and, for the first time, this had a somewhat offensive odour. The urine drawn off from the bladder was scanty and high-coloured. The morphia-injection was repeated.

November 7th, 5 A.M. She had dozed through the night, asking at intervals for milk, of which she took a good deal. Temperature 102.5 deg.; pulse 140. The morphia-injection was repeated. At 8 A.M., she was still comfortable, but complaining much of thirst. About half an ounce of bloody serum was extracted from the drainage-tube; but a considerable quantity had escaped by the side of the tube, and the dressings and night-dress were a good deal saturated. Temperature 102.5 deg.; pulse 131. At 11 A.M., retching again occurred, and vomiting of a watery fluid. She complained of much pain in the lower abdomen. Half a grain of morphia was injected.—2 P.M. The retching continued. There had been a profuse discharge of bloody serum, soaking the dressings and sheets. Very little pain was complained of. Her countenance looked pinched and anxious. Pulse 144; temperature 102.7 deg. The discharge continued to escape from the lower angle of the abdominal wound in large quantity. Some beef-tea and brandy were administered *per rectum*, and a little brandy and iced water given her to drink in small quantities. The abdomen was distended; the breathing was thoracic. Half a grain of hydrochlorate of morphia was given subcutaneously. From this time until about seven in the evening, she continued to sink, the sanguineous discharge never abating, but soaking the dressings and bed-linen in great abundance. For some hours before her death, there was no return of sickness and no complaint of pain.

The child had died about six hours after its birth, both respiration and circulation having been very feeble from the beginning. It was very cold when born, and could not be made warm. The *post mortem* examination of the mother was held on the 8th; but, although it took place within twenty-four hours of the death, decomposition, as is usual in puerperal cases, had already far advanced. On opening the abdomen, there were found some few patches of peritonitis, and in the cavity was about a pint and a half of sanguineous serum. The funis, beginning to decompose, could be traced to its insertion into the placenta. The edges of the opening in the cyst were still secured by the sutures to the edges of the abdominal incision; but the cyst-wall itself had given way in many places; indeed, nothing that could be called a cyst remained. The placenta was in such an advanced stage of decomposition, that it was absolutely impossible to ascertain accurately its exact attachments. It occupied pretty much the situation of the right ovary (which could not be found), projecting upwards in front and towards the iliac fossa, and downwards to Douglas's pouch. It was attached to the whole posterior surface of the right broad ligament and to the inner surface of the cæcum. Both Fallopian tubes were in every respect normal. In the connective tissue of the right broad ligament was a cystic enlargement. The uterus was a good deal enlarged, its long axis measuring seven inches and a half, and its breadth three inches and a half, including the thickness of the walls. This elongation was about equally shared by the cervix and body; the cervix from outer to inner os measuring quite three inches. The entire uterus was bent on itself by the bulging of the foetal cyst into the pelvis, the angle of the bend being at the level of the inner os, and the concavity of the bend looking to the right. The mucous membrane lining the uterus was shreddy, partly detached, and deeply congested. The kidneys were large and soft. The liver was in a similar condition. The spleen weighed six ounces, also very soft. Both pleure were healthy. Both lungs were somewhat collapsed, the left especially so. The bases of both were somewhat congested. The pericardium was healthy. The walls of the heart were healthy; the valves normal.

The examination may, therefore, I think, be held to confirm the view that was taken during the last hours of her life as to the cause of the sinking that took place. The amount of peritonitis found was comparatively slight, as were the symptoms during life; and we held that her rapid sinking and death were due to the profuse hæmorrhagic loss she sustained. The exact source of this hæmorrhage, owing to the putrefactive changes established in the placenta, could not, unfortunately, be ascertained. The two ligatures which had been applied during the operation still held. I can only suppose it arose through separation of the placenta from some portion of its seat, without efficient clotting taking place in the divided vessels to check the hæmor-

rhage, there being, of course, no help from uterine contraction, as in ordinary *post partum* hæmorrhage. Before her death, the idea was discussed, although hardly entertained, of reopening the abdomen, with the hope of discovering the source of the hæmorrhage; but we deemed it impracticable, and the results of the *post mortem* examination confirmed, I think, the correctness of the decision. I followed the plan, suggested, I believe, by Dr. Hicks, of stitching the edges of the cyst to the edges of the abdominal incision; but, although at the examination the stitches were found still holding, the cyst itself was so thin and soft, that it had given way in numerous places, and practically very little had been gained. For the first forty hours after the operation, the drainage-tube certainly did good service in permitting the ready withdrawal of effused fluid; but, for the last twelve, the fluid welled up around the tube and funis, and the tube was of little use. But, had she not sunk under the hæmorrhage, I cannot but think that, in the later stages of the case, the tube would have been of considerable service. As regards the bearing of the case on the subject generally, one would speak, as of the inferences to be drawn from any single case, with much diffidence. In the operation itself, no unforeseen difficulty was met with, and the risk to the patient was less than in the majority of cases of ovariectomy. The amount of disturbance of the peritoneum was slight, and the evidences found of peritonitis were also slight. But it would seem to sustain the view that the prognosis in these cases hinges very much on the position and behaviour of the placenta, and mainly, I think, from the point of view of its relation to the occurrence of hæmorrhage. If its disintegration and separation do not occur until the danger of hæmorrhage is averted by the establishment of thrombosis in the maternal vessels of the placental site, the dangers from subsequent peritonitis or septic infection would not appear to be great. In Mr. Jessop's case, for instance, many ounces of putrid fluid were on several occasions retained for a while and then discharged, and yet general septicæmia, at all events, did not occur. This probably has relation to the fact that septic fluids are not formed until granulation is in progress on those incised surfaces through which absorption is likely to occur. And, in Dr. Heywood Smith's case, death, I believe, took place from hæmorrhage within a few hours of the operation. The question, therefore, of supreme interest is this. It being by general consent admitted that it is inadvisable to interfere with the placenta at the time of operation, can any treatment of the placenta be suggested, by the local application of styptics or the use of ligatures, likely to lessen the chance of hæmorrhage by premature separation or disintegration of its tissues?

ON THE TREATMENT OF AURAL EXOSTOSES.

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I HAVE nothing to say except in agreement with the etiology and pathology of aural exostoses as explained in the commendably concise and very interesting communication of Dr. Cassells; but I think an account of the treatment pursued in the following case may be interesting to readers of the JOURNAL.

Mr. J. S., aged 35, residing at Tunbridge, consulted me on April 16th, 1877, on account of total deafness of the right ear, which had existed over four years. His history was that, eight years previously, feeling the ear itch, he had rubbed it with the finger and induced bleeding. He felt quite deaf for an hour, recovered his hearing partially, but had heard nothing for four years. Meantime, there had been a gradually increasing swelling, which had become denser as it grew; occasionally, a little discharge oozed from behind the growth. He suffered intensely from facial neuralgia of the same side.

On testing his hearing, it was plain that his deafness was due simply to obstruction of the external meatus, which was quite filled by a smooth, spherical, bony tumour covered with skin. With a curved probe, it was discovered to be attached by a narrow bony pedicle to the posterior wall, and attempts were made with every kind of forceps to wrench it off, but without success, as no hold could be obtained on the growth. I, therefore, took him round to Mr. Wallis in Queen Anne Street, and, having removed the dermal covering, I requested that gentleman to drill a hole in the tumour with the American tread-drill now in general dental use. (The moment the growth was perforated, the patient heard the watch at some inches.) I then, with a pair of fine tooth-forceps, one blade being placed in the perforation, easily evulsed the tumour, which, divested of skin, measured just two inches in circumference. There was but little pain or hæmorrhage, and the patient immediately regained perfect hearing. The surface was dressed

with weak solution of chloride of zinc, and healed over in a few days. Dr. Matthewson, of Brooklyn, New York, reports a case somewhat similarly treated in the *Edinburgh Medical Journal* for November.

Finally, as an evidence of the advance which aural surgery has made, even in small matters, in the last few years, it may be stated that Toynbee (*Diseases of the Ear*, with a Supplement by James Hinton, page 110) considered "that there are many weighty objections to any attempt to remove these tumours by operation or by escharotics", and advised "the use of iodine (externally and internally) and other absorbent medicines". My patient had also seen the late Mr. Harvey five years previously to his visit to me, and had been recommended to leave the growth alone.

CASE OF RIGHT HEMIPLEGIA, OCCURRING DURING THE SEVENTH MONTH OF PREGNANCY: RECOVERY ALMOST COMPLETE, AFTER PARTURITION.

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MRS. A., a married woman, aged 32, who had hitherto enjoyed good health, about the beginning of the seventh month of pregnancy, one morning, when attempting to rise out of bed, complained of a sensation of great weight in her head and dizziness, and immediately afterwards fell backwards, perfectly insensible and helpless, and breathed heavily. She remained in this state, I was told, for nearly half an hour, and then became conscious. On the previous day, she had suffered from slight dizziness, but otherwise felt well. She had had two children, and had soon recovered after her confinements. When I visited her, in about an hour after the attack, I found her sensible, but unable to speak; the right arm and leg were perfectly paralysed; when raised, they dropped like logs of wood; there was but very little sensation left in either limb; the right buccinator was flabby; and the tongue, when protruded, was turned towards the right. The muscles of the chest and abdomen were not affected; she could close both eyes, but not with such power the right as the left; both pupils seemed rather dilated. The pulse was slow and full. Respirations were natural. There was no cardiac hypertrophy, nor arcus senilis. She remained in this state for about a fortnight, when slight sensation returned into the extremities, the lower one first; and power of speech, which had been completely in abeyance since the attack came on, returned to such an extent that she could now utter an inarticulate sound, which at last became developed into a Yes and a No. The urine, which for the first few days was rather cloudy, on applying heat and nitric acid, now showed no signs of albumen. She remained under treatment for six weeks; but, as no appreciable improvement took place, it was deemed advisable to abstain from any treatment for the time being, at all events until after parturition, which was got over (I was made to understand) without any difficulty, the child being perfectly healthy.

When I again saw her, in a fortnight after the confinement, she was very weak, but gradually recovering her strength; able to move her leg and arm, but not to turn over in bed; sensation was almost perfect in both limbs; the buccinator was still flabby, it had not improved to the same extent as the extremities; she could utter a few easily pronounced monosyllables; was rather deaf. Her memory failed her, and her intellectual faculties generally were impaired. She would occasionally alternately laugh and cry, and did not seem easily to comprehend what was said to her. These symptoms made me fear that some permanent mischief was commencing.

At the end of the second month after parturition, she could walk about and use her arms, but both limbs felt rather weak; the buccinator was firm, but the ability to speak was still rather imperfect. The intellectual faculties had almost gained their natural state. The brain, which I at one time feared had received a shock from which it would never recover, seemed to be gradually resuming its functions. The effusion which, I presumed, from the suddenness of the attack, the absence of any appreciable premonitory symptoms, the lividity of the countenance during the attack, and the other symptoms described, had taken place, seemed now gradually to become absorbed: and the patient seemed to be slowly but steadily improving, when I lost sight of her.

A CENTENARIAN.—According to the *Allgemeine Medicin. Central Zeitung*, there is living in Bromberg a man, named Stanislaus Bagerewski, 117 years old.