TUBAL GESTATION WITH RUPTURE AND HÆMORRHAGE INTO THE PERITONEAL CAVITY.

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ON August 31st I was asked to see a married woman, aged 26. She had the appearance of a person who had suffered a severe hæmorrhage. She was blanched and quite pulseless. The skin was cool and moist, and there had been recent vomiting. She complained loudly of pain in the lower part of the abdomen.

History.—She believed herself to be pregnant, but there having been several slight discharges of blood, she thought she might be going to miscarry. She had had three children naturally, the youngest 3 years of age, and at this, the last, confinement there had been some difficulty with the placenta. A year ago and nine months ago respectively, she had miscarried at about three months, and on one occasion at any rate, aid was required to remove the products of gestation. On July 7th—that is, seven and a-half weeks ago—there was a natural menstrual period. A fortnight ago there was a slight fainting attack, with pain and some discharge of blood from the vagina, but the symptoms passed off after resting. The same symptoms recurred a week ago, but again passed off, though she did not feel quite right. There was some sickness similar to what she had had in former pregnancies.

Present Attack.—This began with a faint a few hours before I was called to see her. The abdomen was protuberant and tender, but neither tense nor resistant. The tenderness seemed greater on the right side. The temperature was 99.2° ; the pulse could not be felt at the wrist. Vaginal examination showed the os to be patulous, and nearer the left than the right side of the pelvis. The fornices appeared shallow, but no defined swelling could be made out. The examination caused some pain, and the finger was stained with gummy blood. Morphine (gr. $\frac{1}{2}$) was given, and arrangements were made to have the patient removed to the Cottage Hospital. This was done with some difficulty in the afternoon, the slightest movement causing an access of pain. In the evening the pulse was slightly better, and the pain was less severe, but the abdomen was more protuberant.

Diagnosis and Treatment.—Dr. Hall and Dr. Lawson now saw the patient with me. They concurred in the diagnosis of tubal gestation with hæmorrhage. Morphine (gr. $\frac{1}{2}$) in suppository was given at night, and the patient was prepared for operation. On the following day there was some improvement in the general condition, but the abdomen remained swollen and tender, and there were intermittent pains. An enema of soap and water failed to move the bowels. Drs. Hall and Lawson again saw the patient with me, and afterwards kindly assisted with the operation.

Operation.—On opening the abdomen in the middle line fluid blood at once issued forth, and later on a quantity of dark clot. The right ovary and tube were brought up into the wound, but were found natural. On searching for the left tube the fingers entered a mass of dark blood clot, from which, however, an enlarged tube with ovary was easily extricated. After ligaturing the broad ligament the ovary and tube were removed. The latter had, quite near its fimbriated extremity, a small sac about the size of a pigeon's egg, ruptured in its whole length towards the free border of the broad ligament. The clot was then cleared out as thoroughly as possible from the cavity of the abdomen, principally by means of the hand. It was not found practicable to remove it entirely, however. A small part of the clot showed signs of organisation, but there was no adventitious membrane, and there were no adhesions to the bowel or pelvic walls. The embryo was not found. The amount of blood and clot removed was about sufficient to fill a pint measure. The abdominal cavity was irrigated with hot saline solution, and then closed without drainage.

After-History.—There was considerable collapse after the operation, but the injection of saline solution into the areolar tissue under the breasts and also into the rectum seemed to do good. After the collapse had passed off the patient did

not have a bad symptom. For a few days the urine contained a small quantity of albumen, probably caused by the absorption of blood clot. On the third day after the operation a complete cast of the uterus, along with a small quantity of blood, was discharged from the vagina. On the eighth day the wound was dressed and found to be soundly healed. On the twenty-eighth day there was a natural menstrual period, and thereafter the patient went to a convalescent home.

REMARKS.—The right tube was thought to be the one involved, from the greater tenderness on that side of the abdomen, and from the fact of the os being nearer the left side of the pelvis. It was not so, however, and it seems probable that the lessened space between the os and the pelvic wall was due to bulging of the soft parts by blood in the peritoneal cavity.

HYSTERECTOMY FOR A SOFT FIBROMYOMA WEIGHING 53 LBS.

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EGYPTIAN women appear to have a special capacity for carrying enormous abdominal tumours without apparent discomfort, tumours which in a European woman must have produced most distressing pressure symptoms, and, indeed, would never have been allowed to attain such dimensions without seeking surgical intervention.

History.—The patient was an unmarried Egyptian woman, aged 18, whose principal trouble was that she had had amenorrhœa for the last two years. For six months prior to this she had lost a considerable quantity of blood at each menstruation. When menstruation stopped, a small swelling appeared low down on the right side of the pelvis, and gradually increased in size, until on admission to hospital it seemed to more than occupy the whole abdominal cavity (*vide figure*). There were no special symptoms during the enlargement of the abdomen, but in the last few months the patient had become somewhat emaciated. She could not lie on her back for any length of time, but was quite comfortable lying on her side or sitting up nursing the tumour like a great pumpkin between her knees.

State on Examination.—The abdomen was enormously distended, but the skin had evidently been stretched very gradually, as there were very few lineæ albicantes, and the skin was not tense and shiny as occurs in more rapid distensions such as ascites. The superficial veins on the upper half of the abdomen were much dilated, and the umbilicus was pushed downwards and protruded. The surface of the swelling was everywhere quite smooth, and distinct fluctuation was felt from side to side, being more marked low down in the loins, which were much overhung by the lateral parts of the tumour. The whole swelling was dull on percussion, and an aspirating needle had been inserted in the middle line before admission to hospital, but no fluid was withdrawn. The greatest circumference of the abdomen was $49\frac{1}{2}$ inches (125 cm.); the circumference at the level of the umbilicus was $43\frac{1}{2}$ inches (111 cm.). The distance from the ensiform cartilage to the umbilicus was $15\frac{1}{2}$ inches (40 cm.), and from the umbilicus to the pubes $7\frac{1}{2}$ inches (19 cm.). On vaginal examination there was found considerable prolapse of the vaginal walls, the fornices were obliterated, and the cervix of the uterus was felt quite low down. The ovaries could not be felt, and it could not be definitely made out whether the tumour moved with the uterus or not, as the mass was altogether too large to manipulate. The most probable diagnosis seemed to be an ovarian cyst, with a thick wall of multilocular cysts around one large central cavity. Dr. Sandwith, under whose care

the patient was admitted, asked me to examine her with him, and we decided upon abdominal section.

Operation.—Two hours before operation a rectal injection of a pint and a-half of normal saline solution was given, and was well retained. The urine was drawn off two hours before and again after the anæsthetic had been given. The head and shoulders were well raised on pillows, and chloroform administered in this position. A median incision about three inches long was made below the umbilicus, and a fleshy, muscular-looking tumour, which at first sight was very like a much over-distended pregnant uterus, was partially exposed. Being loth to abandon our diagnosis of ovarian cyst, a search was made for fluid with a trocar and cannula, but without success; the tumour was quite soft, but perfectly solid, and only a small quantity of dark blood escaped. It now became evident that it would be impossible to remove the tumour through the present incision. This was enlarged upwards nearly to the ensiform cartilage until the upper limit of the tumour could be reached. Little whorls of muscular fibres were seen on the surface of the fleshy mass, and in the upper part many dilated veins, like large drainage tubes, ran down from the omentum. One particularly large bunch came from the greater curvature of the stomach on to the dome of the tumour. With great care all these veins and the few fine adhesions in which they ran were divided between ligatures and another thick band of attachment to the transverse mesocolon similarly treated. The tumour was now free above, and was lifted out of the abdomen in my arms, steadied as it rested upon the front of the pubes, while an examination was made of its lower attachments. It was obviously of the uterus, its lower end surrounded by greatly dilated veins running in the broad ligaments on each side. The ovaries were quite healthy. These veins were divided between clamps, the cervix which was thus isolated, was quite small, and was cut across and the tumour removed. The veins were then ligatured with thick silk, and the raw surfaces of the stumps of the cervix sutured across and a cap of peritoneum sutured over the stump. The cut peritoneal surfaces of the broad ligaments were closed with continuous silk sutures over the ligatures. The peritoneal cavity was then washed out with normal saline solution, and during the irrigation a splendid view of all the abdominal viscera was obtained. We were able to see that the ureters were intact as they could be traced in their whole length. All the fossæ on the under surface of the liver were particularly well seen, in fact it was like a mannikin preparation. Eighteen abdominal sutures were required to close the incision, and before the last was tied the peritoneal cavity was moderately distended with normal saline solution, which thus kept up a certain amount of fluid pressure in place of the tumour which had been removed. The patient was not much collapsed after the operation, which was completed in just over an hour, and my best thanks are due to Dr. Francis Badir and to my students for their skilful assistance.

Progress.—The patient had a good night, slept well, and had no thirst, a good sign generally found in my experience when intraperitoneal injections or normal saline injections have been employed. Two days after operation the temperature reached 101° F., and she had pain in the left side, due to dry pleurisy. Similar signs appeared on the right side the next day, and continued for nearly a week before they cleared up. She had no other bad symptom, but on the third day she complained of thirst, which was relieved by a rectal injection of normal saline solution. The abdominal wound healed perfectly by first intention, and the sutures were removed thirty days after operation. Three weeks after operation a collection of dark brown purulent fluid was found at the lower end of the abdominal incision, and was evacuated by inserting a director. A tube was placed in the cavity, which was entirely extraperitoneal. Now, six weeks after operation, the patient is quite well, and is undergoing a course of fasting diet before being discharged from hospital.

Examination of the Tumour.—The tumour after removal weighed 53 lbs. (24 kilos). It was a soft fibromyoma of the uterus, and even now gave a perfect sense of fluctuation. It had grown apparently from the anterior wall. Curled round the base of the tumour was a sausage-shaped mass of the same soft fibromyomatous tissue, resembling a dilated Fallopian tube. Dr. Symmers reports that the cervical canal ran for an inch and a-half into the uterine cavity, which was normal in size and shape. There was a lot of soft cavernous tissue in the anterior part of the tumour, forming irregular cavities of various sizes, filled with thick mucoid material. The bulk of the tumour was of soft fibrous and muscular tissue, and was not very vascular. Microscopically the section consisted of unstriped muscle fibres, with a great deal of loose fibrous tissue, in which were some large granular and degenerating cells. In certain parts of the section there were open spaces filled with mucoid material.

The main points of interest in the case are the size and weight of the tumour, the fact that it was quite solid and yet gave such perfect fluctuation, the absence of pressure symptoms and urgent respiratory obstruction, and the good general condition of the patient before operation. In all cases of severe abdominal operations I am in the habit of almost filling the peritoneal cavity with normal saline solution before closing the abdominal incision, as described above, with most satisfactory results.

HYGIENE IN MADRID SCHOOLS.—Dr. Roberto Arcas, a member of the Municipal Council of Madrid, has proposed that spittoons containing disinfectant fluids should be placed in the public schools. He has also proposed that the Medical Inspector of Schools should pay a monthly visit to each school, and report on the health of each child, with special reference to infectious diseases. He further suggested that a dentist should visit the schools every month. The Madrid municipality, which must be enlightened beyond the average of our own local authorities, adopted all the recommendations of Dr. Arcas.

THE TREATMENT OF PUERPERAL ECLAMPSIA.

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I NOTICE in the BRITISH MEDICAL JOURNAL of September 21st, 1901, a case of puerperal eclampsia successfully treated by morphine injections. In these days of antiseptics and improved nursing eclampsia has taken the place of puerperal fever as the chief thing the general practitioner has to fear in his midwifery practice. The following is a brief record of 5 cases, 2 of which were fatal:

CASE I was reported in the JOURNAL of July 16th, 1898, and only the main features need be mentioned. The patient, a multipara, was delivered without difficulty of a full-time child on May 20th, 1898. Persistent vomiting came on soon afterwards. The first convulsion occurred nine hours after delivery—at 7 A.M. on May 20th; six more occurred during the next twelve hours, with complete insensibility in the intervals. She had two injections of morphine, gr. $\frac{1}{2}$ the first time and gr. $\frac{1}{4}$ the second, each combined with pilocarpin gr. $\frac{1}{8}$; she slept for several hours, awoke sensible, and eventually recovered. The urine was found loaded with albumen during the day.

CASE II.—The patient was a primipara, aged under 16. On June 16th, 1898, at the onset of labour at full time, she had several convulsions from 8 to 11 A.M.; they were frequent, but not violent; the os was dilated to the size of a shilling. In conjunction with Dr. Miller of Iver, a hypodermic injection of morphine gr. $\frac{1}{2}$ was given at 11 A.M.; then, under chloroform, the os was dilated with the fingers, a foot brought down, and delivery effected, the child being stillborn. The "woman" made a good recovery.

CASE III.—A young, full-blooded woman was expecting her first confinement in October, 1899. On August 19th she came complaining of severe headache and swelling (œdema) of legs, hands, and face. The urine was found nearly solid with albumen on boiling. The same night vomiting came on, and on August 20th, at 7 A.M., the first convulsion occurred. Five more attacks occurred during the next three hours; the patient was unconscious and cyanosed in the intervals. There was no sign of labour. At 10 A.M. she was given an injection of morphine gr. $\frac{1}{2}$. In spite of this four more convulsions visited her during the next two hours and a-half, so at 12.30 she was given a second injection of morphine gr. $\frac{1}{2}$, with pilocarpin gr. $\frac{1}{8}$. Three much milder convulsions followed, the last at 2 P.M., making thirteen in all, after which there were no more. Owing to the continued cyanosis, however, and the pulse being full and strong, 8 ounces of blood were drawn off by venesection at 4 P.M. During the evening the cyanosis wore off, and the patient seemed to be regaining consciousness; she was fed by rectal injections. At 2 A.M. on August 21st, with hardly any warning, a stillborn seven months fœtus was ejected. The patient recovered consciousness, spoke rationally to those around her, and was able to take nourishment well without vomiting. But cough and shortness of breath came on; at 8 P.M. she was found to have acute bronchitis, and she died early next morning.

About this time my partner, Dr. Davidson, had a case of eclampsia at the sixth month. Premature labour was induced and the patient recovered. The uterus was also emptied as rapidly as possible in the following instance, but I think it was a forlorn hope.

CASE IV.—A primipara, aged 20, eight months pregnant, had one prolonged "fit" at 9 A.M. on June 11th, 1901; it lasted a quarter of an hour with scarcely any intermission, and when it passed off the patient had ptosis of the left eyelid, the face was cyanosed, the pulse poor, and dark brown vomit flowing from mouth, the urine (examined later) was loaded with albumen. The os admitted one finger. The woman could not be roused to answer questions. An hour later, with the help of Dr. Davidson, she was placed under chloroform and digital dilatation resorted to. At length a stillborn fœtus was delivered by forceps. At 3 P.M. the patient was able, with much difficulty, to swallow a little liquid nourishment, but she never recovered consciousness sufficiently to speak coherently and died at midnight.

CASE V.—On August 3rd, 1901, a primipara, seven months pregnant, had four convulsions in two hours (4 to 6 A.M.). They were not so violent as in the previous cases, the face was not markedly cyanosed, and the patient, though hardly conscious, was able to swallow liquids, including the chloral (grs. xij every four hours) which I gave her. The case was evidently a mild one, and she had no further attacks. There was no sign of labour. The urine was loaded with albumen. She was treated with laxatives, diaphoretics, and milk diet during the next few days, and the albumen diminished to some extent. On August 9th, six days after the eclampsia, she was confined easily of a stillborn child, which from the appearances had been dead since August 3rd. The woman made a good recovery and there was no albumen on August 23rd.

I think Case III would have recovered had it not been for the bronchitis. Case IV was hopeless from the first, and was possibly apoplectic in nature.

The premonitory symptoms in all the cases were more or less vomiting and headache, which, however, were not considered by the patients to be anything unusual.

The most important question seems to be that of inducing labour in cases of eclampsia, where the attacks occur in the absence of symptoms of labour, and it would be well if obstetricians would give us some guidance on this point. In severe cases I should be inclined, *ceteris paribus*, to inject morphine at first, but to bring on labour if the convulsions were not quickly subdued.