Conclusion

There was no apparent cause, and this case must be considered as primary or idiopathic agranulocytic angina.

It would appear that in any case of ulceration of the mouth, tongue, fauces, or any other mucous membrane without definite cause, yet with severe constitutional disturbance, an examination of the blood should be carried out to exclude the possibility of agranulocytic angina.

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FULL-TERM EXTRAUTERINE PREGNANCY WITH LIVING CHILD

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The recent publication of a very interesting article with a case report of full-term ectopic gestation¹ prompts the record of a similar case which occurred in the practice of Redhill County Hospital. This simulated a normal pregnancy so closely that at no time was the possibility of an ectopic gestation considered, although in the light of later knowledge the latter diagnosis should have suggested itself at the time of the patient's first attendance at hospital. The patient attended on several occasions over a period of four months.

Clinical History of Case

M. C., primipara, aged 24 years, was admitted to Redhill County Hospital, Edgware, on April 5th, 1932. At the age of 14 years she was operated upon for appendicitis, and was afterwards troubled with a ventral hernia, which developed in the operation scar. Each menstrual period was preceded by pain and a slight vaginal discharge. Her last menstrual period commenced on October 23rd, 1932.

Three weeks prior to her admission to hospital she had an attack of severe pain in the abdomen. She was impressed by the suddenness of the onset of the pain, which, she stated, occurred in the lower part of the abdomen, being much more severe on the right than on the left side. This severe pain, which lasted for about a day and then gradually diminished in intensity, was associated with a slight pain in both shoulders; she herself described it as "sharp" and "like twisting knives." Following this attack there had been a vaginal discharge, which after a fortnight diminished in amount.

When admitted to hospital she described the pain as being much less severe and of a dragging nature, but added that the act of micturition was accompanied by pain. She was extremely nervous and apprehensive of examination. The temperature was 98° F., pulse 86, respirations 24. The bowels were regular. A centrally situated tumour reaching to the umbilicus was regarded as the uterus enlarged to the period of cyesis. Tenderness was present over the whole abdomen, but was most marked in the iliac fossae. The presence of this tumour was confirmed by vaginal examination. The cervix was soft and the external os closed. There was tenderness in

the right and left fornices. The fundus of the uterus could not be defined from the tumour, which filled the pelvis and reached into the abdomen. A catheter specimen of the urine showed no abnormality. She was discharged from hospital on April 14th, 1932, having been then for some days entirely free from symptoms.

The patient reported at the ante-natal clinic on May 9th, 1932, and thereafter attended on three occasions prior to her readmission to hospital on July 29th, 1932. A radiogram taken on July 16th showed the foetus had assumed the transverse position. The head was lying in the left iliac fossa. Attempts at external version failed to alter this, and the position was maintained until August 9th, when it was decided to attempt external version under anaesthesia.

In contrast to the difficulty experienced in previous attempts at version, the head was very readily moved and maintained in the vertex position. As the head commenced to turn it was noted that a definite "snap" was conveyed to the palpating hand. The head was floating well above the brim of the pelvis. A vaginal examination was carried out, and a large placenta was felt occupying the entire pelvis. It was seen at once that the patient's condition had become worse, and the anaesthetic was immediately discontinued. She became very blanched and extremely shocked. When conscious she complained of severe abdominal pain. It was thought that the uterus had been ruptured, and an operation was immediately carried out under chloroform and ether anaesthesia.

Operation

The abdomen was opened by a midline incision. The abdominal cavity was found to be full of blood. A living female child was extracted. The umbilical cord was cut between ligatures. A normal uterus was then palpated and seen lying anterior to the placenta, which swayed at the end of a strap-like pedicle. This pedicle was from 3 to 4 inches broad, and was attached to the posterior aspect of the right broad ligament. As large blood vessels were seen coursing through the pedicle, it was accordingly severed between clamps and the stump ligatured with catgut. A thick-walled, ruptured sac was adherent to the coils of the small bowel and also to the omentum. The sac was readily separated, and very little of it had to be left behind owing to its persistent adhesion. The patient's condition was extremely precarious. A pint of the blood which had been sucked out of the peritoneal cavity during the course of the operation was given to her intravenously. Thereafter her condition rapidly improved, and undoubtedly this case marks a further illustration of the life-saving value of auto-transfusion of blood. The convalescence was uneventful, and she was discharged on September 7th, 1933. She was examined again on May 7th, 1934—that is, twenty months after her operation, when she stated that menstruation was in every way normal. At no time since the operation had she experienced any pain or discomfort.

After the operation the child showed signs of shock but rallied with treatment. Her colour was then good, and she seemed apparently healthy. Unfortunately the child died suddenly twelve hours after birth.

Post-mortem Findings

A necropsy was carried out on the body of the child, and the following details were noted:

Length of child	...	...	17½ inches
Weight of child	...	...	6 lb. 11 oz.

Although a careful examination was made, no abnormality or deformity was found. Sections of different parts of the skeleton were reported on as follows:

"The sternum shows centres of ossification in the manubrium and three centres in the body. Ossification is commencing in the lower end of the femur in the lower epiphysis. The epiphysis at the upper end of the tibia shows no sign of ossification. The placenta weighs 3 lb., is fully formed, and measures 8 inches in diameter. It appears to be perfectly normal, except for the thickness of the membranes attached to it."

Commentary

The tarsal bones were also sent for examination, but unfortunately no report of these was obtained.

There seems to be little doubt from the details given above that this was a full-time child. It would appear that the "snap" which was noticed at the commencement of the version was due to the rupture of the sac, and this case must be the more remarkable from the fact that the child survived the interval of at least one hour which elapsed between the version and the time of operation.

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Clinical Memoranda

SPONTANEOUS RUPTURE OF THE UTERUS AT THE TWENTY-FOURTH WEEK OF PREGNANCY

Uterine rupture at any stage of pregnancy is becoming less frequent. This is to be accounted for by the greater knowledge of, and better attention paid to, the conditions which predispose to it, to the better prenatal care of patients, and to the more careful and gentle treatment of labour, especially when complicated.

A woman, aged 28, was admitted to Addenbrooke's Hospital as an emergency on June 18th, 1930. She had had two healthy children after normal pregnancies and confinements. Since the previous December she had had amenorrhoea, and was about twenty-four weeks pregnant. Up till and during the previous day she had been perfectly well, and had had a normal night's rest. At 6 a.m. she was up and moving about her house, starting her daily duties, when she suddenly had very acute abdominal pain and faintness. Her doctor was sent for, and when he arrived he found her in a state of collapse. He very rightly diagnosed some form of internal haemorrhage, probably intrauterine and of the concealed accidental type. It is important to note that there was no history of the slightest trauma, fall, or shock.

The patient was immediately sent into hospital, and I saw her shortly after her arrival. She was exceedingly pale, the pulse was uncountable (about 180 to 200), and she was only semi-conscious. In fact, her state was one of very profound collapse. On examination the abdomen was not particularly tender, and, when roused, she did not complain then of much pain. Foetal parts could be felt in the lower abdomen in a swelling corresponding in size with the period of amenorrhoea. A diagnosis of intrauterine haemorrhage was made, and the vagina was plugged pending some reaction on the part of the patient. She was infused both intravenously and subcutaneously, and kept under morphine. In the evening the pulse was 120 and fairly satisfactory. The patient was by this time quite conscious, but no uterine pains had developed. The abdomen had become more generally distended, and was tender all over. In addition, a mass about the size of a small coco-nut could be felt low down in the abdomen and rising out of the pelvis.

The diagnosis was still uncertain, except that it was now obvious that the internal haemorrhage, whatever the origin, was intraperitoneal. It was decided, therefore, to open the abdomen. Under nitrous oxide and oxygen the abdominal wall was thoroughly infiltrated with novocain. On opening the peritoneum the first things that presented were foetal membranes over foetal parts; the peritoneal cavity contained much dark blood and clot. On further investigation the ovum was found intact, the placenta seemingly being attached to the back of the uterus, which, before the abdomen was opened, had been felt as the mass low down and rising from the pelvis. A touch with the fingers at the back of the uterus completely separated the ovum containing its six-months foetus, and the whole was lifted out. On inspecting the back of the uterus a pouting laceration, about two inches

long, with irregular margins, was seen. Having removed as much blood as possible, a rapid supravaginal amputation of the uterus was performed, as being the best means of dealing with so desperate a condition. Saline in quantity was left in the abdomen, and the wound rapidly closed. For the next four days the patient seemed to be getting on well, and every hope was entertained of her recovery. Quite suddenly, however, in the afternoon of the fifth day, she took a turn for the worse and died. Necropsy was refused.

The upper part of the uterus removed at operation shows the rent in the centre of the back of the fundus. The specimen was sent up to the medical schools, and very careful microscopical examinations were made in the department of pathology. The following is the report.

"Sections have been made from the unaffected and affected portions of the uterus. In the unaffected portion there is normal uterine muscle, with perhaps, in places, a tendency to a very slight increase of fibrous tissue. In the affected portion the site of rupture shows a large collection of polymorphonuclear leucocytes, which may be an indication of infection or an expression of general leucocytosis of a post-haemorrhagic type. The muscle is degenerate and hyaline at the site of rupture, and is invaded by collections of large mononuclear cells and, here and there, giant cells of the foreign body type. These are not suggestive of any specific inflammation, but merely of a reaction of chronic type. Special staining for fatty degeneration gives negative results. A Gram stain for organisms shows numerous large Gram-positive spherical bodies, which were at first thought to be members of the yeast group. Further and more detailed study, however, disposes of this. They are probably aberrant collections of pigment, some of which are being digested by the polymorphonuclear leucocytes. The cause of the chronic infection of the uterine muscle must remain uncertain. An atypical syphilitic infection is an outside possibility, but this is mainly speculative."

Uterine rupture is roughly divided into two kinds: (1) complete, when the peritoneum is involved; (2) incomplete, when the tear enters the parametrium, having usually extended up from the cervix. Complete rupture, of which this case is an instance, can occur spontaneously, quite apart from powerful uterine contraction or operative delivery. Such would occur in a uterine wall weakened by myomectomy or Caesarean section, when the resulting scar tissue causes a weak spot in the wall. It can occur in a uterus congenitally weaker than the normal, such as the so-called "infantile type," or in a uterus bicornis. But if spontaneous rupture does occur it almost always does so at or near term. In this case spontaneous rupture occurred at the twenty-fourth week without trauma or uterine contraction, and there had been no operative intervention in the uterine wall previously. Some morbid change in the uterine muscle must have occurred locally, and the fact that the patient had had two previous normal pregnancies and labours shows that the change must have taken place since the last puerperium. The microscope has shown these changes in the wall. It was unfortunate that the ovum was destroyed after it had been carefully kept by me with the uterus from which it had come. An examination of the foetus might have thrown some light on this rather obscure condition. The refusal of necropsy also possibly robbed us of important information.

In conclusion, it should be mentioned that no drugs had been taken or administered, and the fact that the ovum escaped from the uterus intact disposes of any suspicion of an attempt having been made to procure abortion. Diagnosis was made difficult by the absence of trauma and the early stage of gestation at which rupture took place.

I am greatly indebted to Dr. R. A. Webb of the department of pathology for the trouble he has gone to in trying to elucidate the case for me.

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