puration may take place in the haematocoele, and incision and drainage per vaginam may become necessary. Gradual absorption of a pelvic haematocoele does not always occur, even though the patient may be kept under the most favourable conditions. It sometimes happens that further attacks of pain occur, with increase in size of the abdominal swelling. This enlargement of the haematocoele means further haemorrhage into the sac, and in such cases it is usually found that the tubal mole is still retained within the tube, and remains a source of danger to the patient. Abdominal section, with removal of the affected tube and blood clot, will then become necessary.

In the third and last type of case, in which the patient has repeated attacks of pain, together with irregular haemorrhagic discharge, but without any collapse or faintness, and where a unilateral swelling is found in the situation of the tube and ovary, it is always advisable to advise abdominal section, as there is grave risk of rupture of the gestation sac, or of severe haemorrhage occurring through the fimbriated end of the tube. If the operation is performed while there is a comparatively small localized swelling in the situation of the tube there is, under present conditions of surgery, the least possible risk. If, however, the case is left and sudden severe haemorrhage into the peritoneal cavity occurs later, operative interference may become necessary when the condition of the patient is far less favourable.

To sum up, one may say that operative treatment is indicated in those cases where the haemorrhage is moderate or severe and of recent origin, and also where the symptoms and physical signs indicate that the gestation sac is still contained within the tube. It is safe, however, to wait and watch the patient in cases where a haematocoele has already formed, and where, after the initial attack of pain, the patient has been free from symptoms for a week or more. Under these circumstances there is a good chance of the blood becoming completely absorbed, and no serious risk is run by following an expectant treatment.

A CASE OF RUPTURED ECTOPIC GESTATION OCCURRING IN A RUDIMENTARY HORN OF A UTERUS BICORNIS UNICOLLIS.

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HISTORY OF THE CASE.

R.P., aged 39, had had three full-term children, the youngest being 16 years old. Nine years ago the patient had an attack of peritonitis on the right side which was thought to be due to appendicitis. Nine weeks before admission into the Samaritan Hospital she was seized with sudden abdominal pain on the left side when fourteen days overdue with a menstrual period. Haemorrhage from the vagina began a week later. The patient only remained in bed a few days after the onset of pain, and did not consult her doctor till nearly six weeks later. During this time the pain continued, and eventually became worse. She then went to see Dr. Hamilton of Ashford, who found the uterine tumour. Except at the onset of the pain the patient did not seem to be ill, and merely went to the doctor because the pain con-

tinued and prevented her doing her work. Dr. Hamilton sent the patient to see me, and she was admitted into the Samaritan Hospital under my care.

On examination I could feel the somewhat rounded firm tumour attached firmly to the left side of the uterus, and I at first thought that it was a fibroid, and that the patient might possibly have aborted nine weeks earlier.

On further consideration, however, there seemed to be too much pain present for a simple fibroid tumour, and the suddenness of the onset, followed a few days later by uterine haemorrhage, strongly suggested a ruptured ectopic gestation. With this possibility in view I advised operation, which the patient was only too ready to accept, because she said the pain was at times more than she could bear.

On opening the abdomen the uterus was found to be enlarged; the projecting left horn containing the mole was firmly attached to the intestines and omentum. The right Fallopian tube was converted into a large hydrosalpinx. I removed the uterus by supravaginal hysterectomy as well as the right tube and ovary. The left tube was quite normal and its fimbriated end patent. The left tube and ovary were not taken away. The only point of interest about the operation was the condition of the intestines, which were firmly attached to the site of rupture on the posterior aspect of the gestation sac. The walls of the gut in direct relation to the ruptured gestation sac were nearly half an inch thick. This was due to haemorrhage which had taken place into the muscular coat of the intestine. A portion of the ileum which capped the blood clot had a crater-like depression nearly half an inch deep. The lumen of the gut was not encroached upon. I had considerable difficulty in freeing the two adherent and thickened loops of small intestine and the sigmoid. The peritoneal coat of the gut had completely disappeared over the adherent area and it was quite impossible to bring the peritoneum together, but the eroded and thickened walls were united as far as possible with catgut without constricting the intestinal canal. No doubt the trophoblasts of the ovum had actually invaded the gut and their eroding action had caused the haemorrhage into the muscular coat of the intestine.

The patient made an uneventful recovery.

THE SPECIMEN.

The uterus is enlarged, measuring $3\frac{1}{2}$ in. vertically and $4\frac{1}{2}$ in. and $3\frac{1}{2}$ in. across at the levels of the attachments of the Fallopian tubes and round ligaments respectively. Externally it has the appearance of a uterus bicornis unicollis, the right side being well developed and the left rudimentary. The rudimentary horn joins the right side above the internal os, and is composed of a solid block of uterine muscle in the distal portion of which the mole has developed. The rudimentary horn projects upwards and to the left from its junction with the right side for a distance of $2\frac{1}{2}$ in., and measures $1\frac{1}{2}$ in. across at its base.

The bridge of uterine muscle which separates the mole from the uterine cavity of the right side is $1\frac{1}{2}$ in. thick, and contains no cavity. There is thus no connexion between the cavity of the uterus and that containing the mole. The mole measures $1\frac{1}{2}$ by $2\frac{1}{2}$ in. in its chief diameters. It is composed of firm blood clot, and is surrounded by a rather thin capsule on its outer side. The left Fallopian tube is attached to the outer and lower

Anterior view of specimen. R. FT., Right Fallopian tube; R. O., right ovary; C.L., corpus luteum; U.C., uterine cavity; L. R.L., left round ligament; L. FT., cut end of left Fallopian tube; M., mole; B.C., blood clot containing villi.

angle of the horn. Behind the capsule has given way over an area about the size of a half crown, and through the rupture blood clot protrudes. The top of the blood clot is shown in the drawing of the specimen. The left

round ligament is attached to the front and outer aspect of the horn. The right side of the uterus is well developed, and the corresponding Fallopian tube is converted into a hydrosalpinx. The right ovary shows several haemorrhagic areas and a corpus luteum of pregnancy.

Microscopically, the mole consists of fibrin, in which chorionic villi are seen. The blood clot is in direct contact with the uterine muscle and the capsule. In a few places there seems to be an attempt at some decidual formation immediately at the periphery of the mole. The uterine cavity is lined by normal mucous membrane, but there are decidual cells in the stroma beneath the endometrium. Large quantities of lutein tissue surround the corpus luteum in the right ovary.

I think the specimen is best described as being one of a ruptured ectopic gestation, which has developed in the muscle of a rudimentary left horn of a uterus bicornis. The ovum probably passed across the pelvic peritoneum from the right ovary and entered the left Fallopian tube, and, becoming arrested in the blind uterine end of the tube, burrowed its way into the uterine muscle. It might possibly be suggested that the blood had collected in the horn as the result of a unilateral haematometra. This criticism of the specimen is, of course, negated by the microscopical examination of the mole and the clinical history of the case.

Mr. Shattock, who has made a very careful examination of the specimen, has found chorionic villi in the blood clot which is adherent to the peritoneum around the seat of rupture. This fact clearly shows that the intestines were in direct contact with the chorionic villi.

RIGOR MORTIS IN THE STILLBORN.

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THE annotation in the BRITISH MEDICAL JOURNAL of October 5th, 1907, on a case of rigor mortis in a stillborn infant, reported by Dr. Ulrich, of Erfurt, makes mention of the importance of this occurrence from a medico-legal point of view, and as I have reported similar cases during the past thirty years, but cannot find any reference thereto in the various works on medical jurisprudence I have consulted, I venture again to relate the facts observed by myself, in the hope that being confirmed by the experience of others, they may now be considered, verified, and embodied in the recognized manuals for the instruction of students.

CASE I.

In 1874 a young woman of respectable family living alone in a country schoolhouse was overheard by the old attendant woman (who suspected her condition) groaning in her room; after some time the young woman went out, and the attendant going into the room found in a drawer the dead body of a child, newborn, and gave information to the police. A medical man was called, and the woman was committed for trial for murder. The old woman did not hear the child cry, but the medical man found lacerated wounds of the mouth, etc. He was asked if he had made a *post-mortem* examination, and said No, because there was strong rigor mortis, and this showed that the child was born alive. The woman was ably defended; the surgeon's neglect to examine the body, and the fact that the old woman listening heard no cry, strengthened the defence that the wounds were inflicted in the agony of expulsion, that the child was born dead, or died from want of attention, and not from the injuries, and she was convicted of concealment only.

CASE II.

A short time after this case I was called to a multipara in the country, and found her in hard labour; the pains were regular and very violent; the child was alive. The pains, though severe, were not expulsive, and the membrane had been ruptured some time. After a time the pains ceased, and I went on a round. On my return I found the pains had commenced again; as progress was slow, I sent for my father to assist me, and we delivered her of a stillborn child with difficulty. We noticed that there was some stiffening of the limbs, and the child was laid aside while we attended to the mother, who was much exhausted. Before leaving we examined the child

and found that the rigidity we had noticed before had increased, and that there was strong rigor mortis, and that of an unusual kind, producing an attitude unlike that caused by ordinary cadaveric rigidity. The head was drawn forward and the back somewhat rounded; the arms were flexed on the elbows and bent on the chest. The thighs were drawn up and flexed towards the belly, and the legs were flexed at the knees; in fact, the body was drawn up into the position in which it would lie in the uterus, as shown in the accompanying illustration from

Fig. 1.—Adaptation of fetus to uterus. (By permission of Messrs. J. and A. Churchill.)

Dr. Tyler Smith's *Manual of Obstetrics* (Fig. 1). I reported this case shortly in the *Medical Times*. Since then I have been on the look-out in cases of stillbirth, and the following two cases are fair examples.

CASE III.

This was an example of extreme hydrocephalus; the patient was a primipara, and delivery was effected with much difficulty after perforation. The infant when born was quite flaccid, the limbs lying extended, but rigor mortis set in, and gradually the limbs were drawn up into the intrauterine position, as described above.

CASE IV.

An unmarried girl was suspected by the police and subsequently the body of a newly-born child was found in a hole in the garden in a box. The girl was confined at her home, and the parents stated that, as the child was born dead, they thought it unnecessary to register, and of course hoped to hide the daughter's shame. I was called on to examine the body. It was a well-developed child, somewhat prematurely born. It was lying doubled up in a cardboard box; on taking it out the limbs were limp, and on placing it on its back the arms and legs were extended in the ordinary way, but there were marks of pressure at the flexure of the arms and legs, and on taking up the body the limbs fell naturally into the intrauterine position. Examination showed that the lungs had not been inflated, but were solid. As a result I was able to state that the parents' account was correct—that the child was born dead, and that it had died probably some days before it had been expelled, that rigor mortis had set in and passed off *in utero* before birth.

CONCLUSIONS.

I regret that I cannot now give details of the dates and other particulars of these cases, but they will illustrate the conclusions I wish to enforce.

1. Rigor mortis may set in under certain conditions before labour, and may pass off while the child is still *in utero*, and possibly may delay the birth in these cases until it has passed away.

2. Rigor mortis may set in when the child dies during labour, and may either be complete before or may go on to completeness after birth, and in these cases increases the difficulty of expulsion.

3. A child may die during labour and be expelled before rigor mortis can set in, but rigor mortis may supervene after birth more or less completely.

4. The attitude produced by rigor mortis in stillborn children differs from that produced by cadaveric rigidity