the potentialities she had lost, will make her worse. So with so-called menstrual epilepsy, neuralgia, etc., taking out the ovaries only removes an occasional exciting cause; it does not cure the patient, and may make her worse. But if the primary original disease was dysmenorrhoea, and the added neurasthenia has been produced by the severity of the pain with menstruation, the patient will be cured if menstruation is stopped. Before advising so grave a measure as oophorectomy the great thing is to be sure that the pain and the prostration spring from menstruation and from nothing else. The practitioner will be in an unenviable position who hastily proposes removal of the ovaries for a few attacks of colic due to flatulence or constipation. But careful observation ought to prevent such a mistake.

ON THE IMPORTANCE OF PAIN AND HAEMORRHAGE AS SYMPTOMS OF EXTRAUTERINE GESTATION.*

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Few of the conditions which come under the notice of the gynaecological surgeon are of greater interest in diagnosis than extrauterine gestation. Occasionally cases occur which present features so striking and so characteristic that their nature is readily recognized. But this is not always the case, for the clinical features may be so complex as to puzzle the most experienced observers. And not only are the clinical features complex, they are also subject to extraordinary variation in character and severity, so that it may be difficult to believe that the same pathological condition has given rise to them all. The explanation of these difficulties lies in the fact that the symptoms associated with extrauterine gestation arise, not directly from the presence of the growing ovum in the Fallopian tube, but from certain secondary lesions, either traumatic or inflammatory, which supervene.

These secondary lesions may be briefly enumerated as follows:

1. Intraperitoneal flooding from tubal abortion or rupture.
2. Intratubal bleeding, leading to acute distension of the tube, the abdominal ostium being sealed.
3. Slowly progressive or recurrent haemorrhage, leading to the formation of encysted collections of blood—for example, *pelvic haematoma*, in the broad ligament; *pelvic haematocoele*, in the pouch of Douglas; *peritubal haematocoele*, around the abdominal end of the tube.
4. Infection of the gravid tube, or of an encysted collection of blood, leading to suppuration.

Until one or other of these secondary lesions is produced, extrauterine pregnancy gives rise to no more local or general disturbance than does an early pregnancy in the uterus. An important symptom associated with this phase—namely, a brief period of amenorrhoea—is a most useful aid in diagnosis, but it is by no means always present. When a healthy adult woman, who is usually regular, goes for two or three weeks over the expected date of her period, there is a strong presumption of pregnancy, but at this time there is nothing to indicate whether pregnancy is uterine or extrauterine. In the latter case, however, amenorrhoea is of very brief duration, seldom more than seven or eight weeks, and then gives place to haemorrhage. In something like 30 per cent. of the cases which have come under my own observation there has been no amenorrhoea at all, and I am satisfied that while this symptom forms a useful positive indication, no importance whatever can be attached to its absence. As it is quite unusual for an extrauterine gestation to continue undisturbed beyond the end of the second month, there is consequently no time for the appearance of other general symptoms of pregnancy. But occasionally morning sickness and early breast changes may be met with. When the course of the gestation becomes interrupted by any of the occurrences mentioned above, the clinical features

undergo rapid transformation, and symptoms appear which we are accustomed to regard as those of extrauterine pregnancy; they are, however, in reality those which result from the interruption of the pregnancy by injury to the developing ovum or to its containing sac.

These symptoms, which it is clear ought to be regarded as *secondary symptoms*, are subject to great variation in their character and intensity in correspondence with the nature of the lesion which has given rise to them. The occurrence which is the simplest and the most easily recognized is *intraperitoneal flooding*; the symptoms which attend it are uniform and characteristic, and when a clinical history of amenorrhoea can be obtained, and a careful pelvic examination made, mistakes are hardly possible. Perforation of a hollow viscus, such as the stomach, duodenum, or gall bladder, is the only condition for which it is at all likely to be mistaken, even under circumstances unfavourable for diagnosis. The following case, which is typical of its class, illustrates the remarkable simplicity of the diagnostic problem.

CASE I.

On May 6th, 1904, I was asked by Dr. Hooper, of Sutton, to come down at once to see a case which he believed to be one of ruptured extrauterine pregnancy. The patient was a tripara, 32 years of age, her last confinement having taken place fifteen months previously. In March, 1904, she had a regular period; in April she went six days over her time, when slight bleeding occurred and continued for eight days; after an interruption of twelve hours, it recurred, and continued unchanged up to May 6th. Owing to the haemorrhage, she was kept to bed from May 2nd onwards, and treated with douches and small doses of ergot. On the afternoon of May 6th, while using the douche, she was seized with sudden severe abdominal pain, accompanied with an urgent desire to relieve the bowels. She remained straining at stool and in great pain for some time, and then fainted. Dr. Hooper, when summoned two hours later, at once recognized the signs of severe internal haemorrhage, and I saw her about five hours after the onset of the acute abdominal pain. She had vomited several times, but her general condition had then begun to improve; the face was pale and drawn, the pulse was very small and its rate about 100, the temperature was subnormal, and the skin cold and rather moist. She complained of severe epigastric pain, but was not restless. The abdomen was not distended, but there was marked tenderness over the hypogastric and left iliac regions, which were also dull on percussion. On vaginal examination, a soft swelling was found in the pouch of Douglas, and a firmer, better-defined mass to the left side of the uterus. We had no difficulty in recognizing the case as one of left tubal pregnancy with intraperitoneal flooding, probably due to rupture. It was pretty certain that the bleeding had for the time ceased, and we therefore spent some hours in restorative measures, and operated the next morning, when her general condition had greatly improved. About 30 oz. of fluid and clotted blood were removed from the peritoneal cavity, and in the isthmial portion of the left tube was found a rupture with a small cuboid-shaped mole attached to it. An illustration of this specimen appears in the author's textbook of *Midwifery* (Fig. 60). The tube and ovary were removed and the patient made a good recovery, and has since then given birth to another child.

It is obvious that the diagnosis of a case of this class is a comparatively simple matter, but the symptoms which preceded and attended the rupture of the tube are of great interest and importance. In the first place, it is to be observed that slight haemorrhage, following a brief period of amenorrhoea, had been going on for three weeks before the tube ruptured. Haemorrhage from the uterus is a secondary symptom of extrauterine gestation which is constantly present. If no period of amenorrhoea has occurred it forms the initial symptom, if there has been amenorrhoea it succeeds it. In the great majority of cases it is the earliest indication of anything wrong, but as the same thing frequently occurs from disturbance of a uterine pregnancy, little importance is usually attached to its appearance either by the patient or her doctor. The haemorrhage is slight or moderate in degree, sometimes continuous, sometimes irregular; and, as the late Dr. Cullingworth pointed out, it is usually dark, thick, and syrupy in appearance. It may continue for several weeks if the patient is not relieved by operation. The bleeding is no doubt due to separation and discharge of the uterine decidua, sometimes complete, more often in fragments; but in the majority of cases the pieces of membrane do not attract attention, and are not detected by the medical attendant.

This attempt on the part of the uterus to throw off its decidua when the tubal ovum has been damaged is a most interesting phenomenon. Some reflex mechanism is no

* Read at a meeting of the Richmond Division of the British Medical Association, January 11th, 1909.

doubt initiated which excites uterine contraction sufficiently powerful to detach portions of the membrane from the uterine wall, and so give rise to haemorrhage, which continues until the whole of the decidua has been expelled. It is, however, possible that at the commencement some of the blood which escapes from the uterus may have made its way there from the gravid tube through the interstitial portion. In cases submitted to operation, the haemorrhage always ceases in a few days after the removal of the tube, and I know of no instances in which portions of decidua have been retained, giving rise to persistent bleeding, as is so often the case in uterine abortion.

It is interesting to note that the effects produced by the rapid effusion of a large quantity of blood into the peritoneal cavity were, in the order of their occurrence: (a) acute abdominal pain; (b) fainting and the constitutional signs of haemorrhage; (c) shock, attended by vomiting, and lasting for several hours. The quantity of effused blood was estimated at 30 oz., and the bleeding probably ceased spontaneously when the patient fainted. After an interval of eighteen hours, very marked improvement in her general condition had taken place. This improvement is an important point, and of itself serves to distinguish such cases from perforation of the stomach or intestine, in which the peritoneum is continuously flooded with highly irritant fluids, and the patient's general condition passes rapidly from bad to worse.

The sudden attack of intense abdominal pain in this case was produced not by rupture of the tube, but by the rapid inundation of the peritoneum with effused blood. Pain, equally severe, may result from sudden free bleeding in tubal abortion—that is, haemorrhage through the patent abdominal ostium—and there is no doubt that it is due to the intense peritoneal irritation caused by blood being brought into contact with a large area of this membrane. The actual laceration of tissue caused by the rupture is probably only an inconsiderable factor in the production of pain. The subsequent course of events—fainting, the development of constitutional signs of haemorrhage, and then the gradual recovery from shock—revealed the causation of the attack, but, as we shall see, the subsequent symptoms are not always of the same illuminating character.

No matter what may be the nature of the secondary lesions occurring in a case of tubal pregnancy, these two symptoms are common to them all—namely, uterine haemorrhage and pain. The pain which is met with has certain characteristic features which deserve attention. It is almost always sudden in onset, and usually spontaneous, although muscular effort, such as lifting something heavy or the act of defaecation, may appear to excite it; it is always severe, and often of the most intense character; it affects at first the whole abdomen, but later may become localized; it is frequently attended with vomiting and other signs of shock, sometimes with faintness or actual syncope; after lasting acutely for several hours it subsides, and thereafter may recur at varying intervals of a few days or a week, until several attacks have been sustained; sometimes continuous pain without exacerbation follows the first attack. The initial attack of pain is almost always due to haemorrhage; the subsequent attacks have a more complex origin, and this I shall endeavour to illustrate by relating a few cases. But pain bearing the broad characteristics above described is a constant symptom of extrauterine gestation, and I regard it as the most reliable indication of the existence of this condition.

In cases not immediately submitted to operation recurrent attacks of intense pain may occur from repeated intraperitoneal haemorrhages, as the following case shows:

CASE II.

This patient was sent to me at the Chelsea Hospital for Women by Dr. Maguire, of Kew, on October 20th, 1904. She was a woman 27 years of age; she had had no children, but a miscarriage had occurred in the previous February. Menstruation had been regular since this occurrence and during the course of an ordinary period which began at the expected time, on October 6th, she was seized with acute abdominal pain, which lasted with intermissions for three to four days. Then she improved, but slight uterine haemorrhage continued for eleven days, that is, till the 17th, when another similar attack of severe abdominal pain occurred.

Dr. Maguire then diagnosed extrauterine gestation, and sent

the patient into the hospital. When admitted she was complaining of great pain; she was pale and restless; her temperature was 100°, and her pulse 110; the abdomen was distended, and tender. There was also slight uterine haemorrhage. Behind the cervix a soft mass could be felt, but the abdomen was too much distended to allow of a satisfactory bimanual examination being made. Having decided that it was not necessary to operate immediately, during the next two days the bowels were freely relieved by enemata, the abdominal distension subsided, and the patient's general condition decidedly improved. Three days after admission, although she had not been allowed to get up, another acute attack of abdominal pain occurred, and lasted for several hours. On October 25th I operated, and found a large quantity, estimated at 2½ pints, of fluid and clotted blood lying free in the pelvic and abdominal cavities; there was no attempt at encapsulation by adhesions. Having removed this we found the left Fallopian tube dilated, and ruptured in its outer third. The damaged tube was removed, and the patient made a good recovery from the operation.

It will be seen that in this case the diagnosis was not quite so obvious as in the first case. There had been no initial period of amenorrhoea, for the patient's illness began during the course of what she regarded as a normal monthly period. Further, the prominent symptom was acute abdominal pain which lasted for three to four days with intermissions. Collapse and faintness were absent. Two similar attacks of acute pain occurred at further intervals on the eleventh and seventeenth days after the first attack. Signs of internal haemorrhage gradually developed, but at the onset of the illness they were not apparent. It is, I think, clear that in this case rupture of the tube led, not to a single profuse haemorrhage suddenly flooding the peritoneal cavity, but to a more moderate and progressive haemorrhage, which was arrested spontaneously, but recurred twice at intervals of eleven and fourteen days after the first bleeding. The total amount of blood lost was nearly double that lost in the first case, yet, owing to the slower rate of bleeding, the degree of constitutional disturbance was much less. There can be no doubt that each attack of acute pain coincided with an outbreak of fresh bleeding, and was due to the same cause—namely, peritoneal irritation.

It will be borne in mind that there was no attempt at encapsulation of the blood which had been escaping into the peritoneal cavity intermittently for three weeks. In such circumstances the pain attending the haemorrhages cannot be due to tension, but must be the reaction of the sensory nerves of the peritoneum.

Acute attacks of intense abdominal pain may, however, arise in extrauterine gestation under conditions quite different from those of Cases I and II.

CASE III.

Mrs. J., aged 30, unipara. She had had one child eight years previously, that is, in 1892, and in the second week of the puerperium a severe illness developed, which lasted for many months. It was probably some septic complication resulting in pelvic inflammation. Since this illness she had never been well, and complained of nearly constant pelvic pain. She was quite regular up to March, 1900; the April period was missed, and about ten days later, on May 3rd, moderate haemorrhage set in, and continued for about fourteen days. On May 17th she was suddenly seized during the night with the most intense abdominal pain. So severe was the pain that she was placed under anaesthesia in order to make a satisfactory examination of her condition. The uterus was found to be retroverted, a soft swelling was detected on the left side of the uterus, and a provisional diagnosis of extrauterine gestation was made by her medical attendant, Dr. Maguire. I saw the case on the following day, and was inclined to think that the swelling on the left side was an abscess in the tube or ovary, and that the acute attacks of pain were due to escape of pus and resulting localized peritonitis. I was not as familiar then as I am now with the fact that escape of blood into the peritoneal cavity may cause pain quite as acute as the perforation of an abscess, or of a hollow viscus. At the operation we found many old and dense pelvic adhesions matting the uterus and its appendages together on either side, and isolating this part of the pelvic cavity. On separating these adhesions a few ounces of recent blood clot were found confined beneath them; the left tube was seen to be dilated, and was isolated from its attachments only with considerable difficulty. A tubal mole, the size of a goose's egg, was found among the clot, and on carefully examining the tube we came to the conclusion that the case was probably one of tubal abortion. The patient made an uninterrupted recovery.

In this case I believe that the extraordinary intensity of the pain was in great part due to the fact that the haemorrhage occurred into a confined space. The density of the pelvic adhesions quite precluded the possibility of their having been produced by the effused blood—that is, of

their being not more than twelve days old. The lower part of the pouch of Douglas, where the effused blood was found, was thus hermetically sealed, and the tension set up in it by the effusion of a few ounces of blood, while no doubt it intensified the pain, was probably of service in arresting the haemorrhage before any great amount of blood had been lost. It is obvious from this case that the amount of blood poured into the peritoneal cavity is not the only determining factor in the degree of pain produced. The absence of constitutional signs of haemorrhage was, of course, easily explained by the conditions found at the operation, but it was to their absence that I attribute my failure to correctly diagnose this case.

These three cases will serve to illustrate the symptoms which arise when *intraperitoneal* bleeding occurs in extrauterine gestation, and among these symptoms the predominance of pain and haemorrhage is so obvious that no comment upon it is necessary. But very similar symptoms may occur from *intratubal* haemorrhage, without any escape of blood into the peritoneal cavity at all, as will be seen from the following case:

CASE IV.

Mrs. A., 36, tripara, menstruated regularly from her last confinement in 1904 till November, 1907. The December period did not come when expected, and a week later, on December 25th, a little bleeding accompanied by a good deal of pain occurred and lasted for fourteen days. This was quite unlike her ordinary periods, which are painless and last only three or four days. After this she was fairly well for a week, when she was suddenly taken seriously ill in the street, with acute abdominal pain and faintness. When she got home she was seen by her medical attendant, Dr. Aphorpe of Harrow, who found her suffering from shock, indicated by pallor, rapid breathing and rapid pulse, and complaining of abdominal pain, which was accompanied by general tenderness and some rigidity. After two or three days in the cottage hospital she improved sufficiently to return home at her own request; but she continued to suffer from severe internal pain, for which morphine was several times required, and her evening temperature was usually about 100° F. When the acute attack of pain occurred haemorrhage again set in and lasted for fourteen days. After an interval of ten days it again recurred and continued up to within a few days of her admission to the Chelsea Hospital for Women on February 21st, 1908. Her temperature was then 100.2°, and she complained of a good deal of abdominal pain and tenderness. There was no pallor, and the pulse-rate was under 100, so that it was evident there had been no serious internal bleeding. In the pouch of Douglas we found a firm elastic swelling of considerable size, which extended well over to the right side and displaced the uterus forwards and to the left of the middle line. These conditions, taken in conjunction with the history, clearly justified a diagnosis of right tubal gestation. At the operation we found, after separating some delicate omental and intestinal adhesions, that the swelling was an unruptured gravid right tube; there was no free intraperitoneal blood, but the tube, which was very thin-walled, was ruptured in separating its adhesions. The tube was removed and the patient made a good recovery.

The probable course of events in this case was that on December 12th an inconsiderable intratubal haemorrhage occurred, indicated by slight uterine loss and great pain for twenty-four hours. Fourteen days later a second and much more extensive intratubal haemorrhage occurred, leading to intense abdominal pain and shock, symptoms which we have just seen may be associated equally well with intraperitoneal bleeding. The amount of blood which can be thus effused into a sealed tube is comparatively small, consequently there were no constitutional signs of haemorrhage. As in Case III, the intensity of the pain was, no doubt, due to the effusion taking place into a confined space.

From these cases it is clear that acute and sudden abdominal pain is a characteristic feature of internal haemorrhage in extrauterine gestation.

The most frequent of all the secondary lesions which may result from extrauterine gestation is a pelvic haematocoele—that is, an encysted collection of blood in the pouch of Douglas. If bleeding is intraperitoneal, and plastic peritonitis occurs around the effused blood, resulting in the formation of a haematocoele above and around the condition is not at once relieved by operation, the distended tube, shutting it off from the general peritoneal cavity. Absorption and shrinkage take place very slowly under these circumstances, and the two symptoms which almost constantly attend pelvic haematocoele are readily explained by the internal conditions—namely, constant abdominal pain and slight to moderate fever. The pain is due in part to the presence of the

pelvic swelling, in part to the local peritonitis to which it gives rise; the fever is due in part to the local peritonitis, in part also to the passage into the circulation of the disintegration products of effused blood. The clinical history of such cases closely resembles that of the case last mentioned, the same predominant importance being associated with the pain.

CASE V.

Mrs. C., aged 40, quintipara. Her last child was born in 1892, and menstruation was regular up to October, 1907, when a regular period occurred in the first week of that month. The November period was missed, and fourteen days later fairly free haemorrhage set in and continued for a fortnight, when a large clot was passed. She went about all this time, but suffered some pain in the abdomen and breasts. The bleeding ceased after some fragments of membrane had been discharged. About four weeks after the onset of the haemorrhage she was suddenly seized with acute abdominal pain and faintness, lasting for four to five hours; severe and persistent vomiting followed, and she was very ill for a week, the evening temperature being about 100° F. More haemorrhage occurred at this time, and lasted several days. On January 24th, 1908, she was sent into the Chelsea Hospital for Women by Dr. Aphorpe, and two days later I operated. We found a well-encysted collection of blood in the pouch of Douglas the size of a cricket ball; it possessed a complete enclosing membrane, which could be traced to the abdominal end of the left tube, where it was firmly adherent. It was, consequently, a *peritubal* haematocoele, and, along with the affected tube, it was completely removed. The left ovary and the right tube and ovary were healthy, and were not disturbed. The patient made a good recovery.

The probability is that in this case the commencement of the illness with haemorrhage and slight pain after six weeks' amenorrhoea corresponded with some damage to the ovum by intratubal haemorrhage, and possibly some escape of blood through the still patent abdominal ostium. The acute attack of pain, which did not occur until a month later, probably signalized a larger intraperitoneal haemorrhage with expulsion of the ovum (tubal abortion).

The tendency to the recurrence of internal bleeding in extrauterine gestation is one of its most distinctive characteristics, and as this case clearly shows, the recurrence of bleeding, even when inconsiderable in amount, produces well-marked and characteristic symptoms. This tendency to recurrence of haemorrhage provides one of the most powerful arguments against the expectant treatment of these cases, and in favour of the prompt removal of the gravid tube. The liability to progressive or recurrent bleeding is not by any means avoided by confining the patient to bed, as the following instructive case clearly shows:

CASE VI.

Mrs. J., aged 25, bipara, menstruated regularly after her last confinement up to November 22nd, 1907. Six weeks then elapsed without another period occurring, and on January 4th, 1908, she had an attack of abdominal pain, described as being not very severe, and slight vaginal loss of an unusually dark colour, which lasted only for a few hours. She was immediately sent to bed by her medical attendant, Dr. Hooper of Sutton. On January 13th, when I saw her first, she was in bed and had every appearance of being in perfectly good health; her pulse and temperature were normal; she had no pain to complain of. There was a little uterine bleeding, and a soft, rather ill-defined swelling, the size of a large orange, was to be felt, behind and to the left side of the uterus. I thought it was a haematocoele arising from a left tubal gestation, but, owing to the extraordinary freedom from urgent symptoms, I hesitated to advise operation, and we decided to try the effect of expectant treatment. The patient was accordingly kept in bed and absolutely at rest for five weeks—that is, until February 17th—and during this time she had little if any pain; her pulse and temperature remained normal, and she constantly expressed herself as feeling perfectly well. But I found the haematocoele had increased very much in size, and now formed a swelling visibly bulging the lower hypogastrium, and extending right across the abdomen up to the level of the anterior superior iliac spines. The next day I operated, and found a large well-encysted haematocoele, and in the dilated outer half of the left tube was a typical tubal mole. She made a good recovery.

This tendency to recurrence of internal bleeding and of the urgent symptoms which indicate it, is not, however, always present, as is shown by the following somewhat unusual case:

CASE VII.

Mrs. P., unipara, aged 27, was sent up to Charing Cross Hospital under my care by Dr. Aphorpe, of Harrow, in August, 1906. She had been regular up to December 27th, 1905. Then the periods ceased, and until the following June she was well, and believed herself to be pregnant, and noticed progressive enlargement of the abdomen and breasts. On June 4th, 1906, being then five and a half months pregnant, she was seized with sudden acute abdominal pain, and she fainted; she was kept in

bed, and the case regarded and treated as one of peritonitis, and no further acute attacks supervened. Two days later she passed a piece of membrane 3 in. long, and there was moderate uterine haemorrhage for a few days. Altogether she was in bed about three weeks, and then, on attempting to get up, the acute pain returned, and she had to go back to bed again. She now noticed that her abdomen was getting smaller, and her health remained in a very unsatisfactory condition, with constant abdominal pain, until her admission to the hospital on August 19th, two and a half months after the attack of acute pain. Her pulse and temperature were at this time normal, and her general condition good. An abdominal tumour was found, solid, hard, and tender; it lay behind the cervix, and thence extended upwards to the right side, to a point half way between the pubes and the umbilicus. It appeared to be quite independent of the uterus, and the history was strongly suggestive of an extrauterine gestation. At the operation on August 24th it turned out to be pregnancy in the undeveloped left horn of a bicornute uterus; there was a fetus of about five months' development, and rupture had occurred with partial extrusion of the fetus, the placenta having been retained entirely within the dilated uterine horn. Omentum and coils of intestine were closely adherent to the gestation sac and the body of the fetus, and there was little free blood found in the peritoneal cavity. The damaged horn was removed, the patient made a good recovery, and has since borne another child.

It appears probable that the development of the ovum was arrested by rupture of the sac at the beginning of June, when the acute attack of pain and fainting occurred; the stage of development of the fetus corresponds roughly with the period of amenorrhoea which had then elapsed. The amount of bleeding caused by the rupture was comparatively trifling, because the placental site was not involved, and consequently the symptoms were not alarming when once the shock attending the rupture had passed away. For two and a half months the fetus and the ruptured sac remained in the abdomen isolated by adhesions, without further haemorrhage, and without infection from the bowel taking place. During the whole of this time the patient was ill, and in more or less constant pain. The rupture of the sac must have been complete, including the amnion, for, as Taylor has shown, the fetus will not be destroyed by rupture of the sac, if the amnion remains intact, and sufficient placental attachment is preserved. There is no doubt that this woman had a lucky escape of her life, for rupture of a cornual pregnancy at the fifth month is usually attended by profuse and often fatal internal bleeding.

Enough has now, I think, been said to show the regularity with which these two symptoms of haemorrhage and pain appear in cases of extrauterine gestation; even when the local conditions found at operation are widely divergent and the corresponding clinical histories show equal differences, these two symptoms are common to them all. And yet, in conclusion, I must warn you not to place a blind reliance upon them; as experience abundantly proves, there is no short cut to diagnosis; each case must be considered on its merits, and symptoms which we have been disposed to regard as reliable guides may at any time play us false if we trust them too readily.

I have quite recently seen a case where the symptoms seemed to justify a diagnosis of tubal pregnancy, and yet entirely different conditions were found at the operation.

CASE VIII.

Mrs. J., aged 22, unipara, was sent into the Chelsea Hospital for Women on January 24th, 1909, by Dr. V. Partridge. Her last regular menstrual period began on August 20th, 1908; in September she went a week over her time, and on September 27th severe bleeding set in, with passage of clots, and this continued for three weeks. There had been no very acute attack of pain, but she complained of a good deal of pain in the left side at the beginning of the haemorrhage, and one or two recurrences took place before her admission to the hospital. The bleeding never ceased for more than two days at a time until January 20th, 1909, a period of nearly four months. During the greater part of this time she was going about, but went to bed for a few days at a time. On admission her pulse and temperature were normal and her general condition good. We found a soft elastic swelling lying in the pouch of Douglas and extending upwards into the left fornix, where it could be felt above Poupert's ligament. At the operation the soft swelling turned out to be a cystic ovary about the size of a lawn-tennis ball, and subsequent examination showed it to be a corpus luteum cyst into which considerable haemorrhage had occurred. The left tube was acutely inflamed and contained pus; the right tube was also much inflamed but not suppurating. On account of her youth I did not remove the right ovary or the uterus; both tubes and the left ovary were, however, removed and the patient made a good recovery.

This was in all probability a case of uterine pregnancy, terminating in an early miscarriage, and followed by infection which spread from the uterus to the tubes. The cyst in the ovary was an accidental complication to which the error in diagnosis was directly due. The weak point in the history was the trivial character of the pain which the patient had suffered and the severity and persistence of the haemorrhage from the uterus. These features ought to have put me upon my guard, but it is obvious that a correct diagnosis would have been practically impossible before opening the abdomen.

THREE RECENT CASES OF TUBAL PREGNANCY.

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The three following cases were operated on by me at the Queen's Hospital recently; they all occurred within the space of three weeks, and, as they present some points of interest, I have ventured to record them.

CASE I.

L. D., aged 34, was admitted on November 12th, and operated upon on November 14th, 1908.

History.

She had been married nine years, and had had three children and one miscarriage, the latter occurring in June, 1907; since then she had not been pregnant. Two months before admission a period came on at the right time, the discharge was darker than usual, and, instead of passing off, it had persisted almost continuously until admission. A fortnight after the onset of the discharge she commenced to have pain in the lower abdomen; worse on the left side; this pain was very severe at times, and then subsided, but never left her.

Condition on Admission.

The uterus was enlarged, and there was a small, ill-defined, very tender swelling in the left fornix.

Operation.

On opening the abdomen, the left tube was seen to be enlarged, and there was some clotted blood around its fimbriated extremity.

Description of Parts Removed.

The specimen removed shows the Fallopian tube and ovary. The tube is dilated in its outer half; its lumen on cross section is about $\frac{1}{2}$ in. in diameter; it is filled with firm blood clots; lying loosely attached to its fimbriated extremity is a small firm blood clot, having precisely the retort shape of a distended Fallopian tube; this is apparently a mole which had been recently expelled.

CASE II.

H. R., aged 30, was admitted on November 26th, and operated upon on November 28th.

History.

She had been married four and a half years, had had one child three years ago, but no abortions. Six weeks previous to admission she had commenced a period at the time expected; this lasted two days and then ceased; three days later it recurred, and had continued, off and on, until admission. Ten days after the commencement of the flow she was taken with very severe pain, which began in the right shoulder, and then spread to the lower abdomen and perineum; three weeks later she had another attack of pain and a rigor. There had also been some difficulty in micturition and well-marked rectal tenesmus; the pain had persisted up to the time of admission.

Condition on Admission.

The lower part of the abdomen was tense and extremely tender; there was an indefinite sense of swelling above the pubes. On vaginal examination there was a distinct swelling in Douglas's pouch with very marked tenderness.

Operation.

On opening the abdomen there was a small amount of blood in the peritoneal cavity, and the left tube was greatly enlarged and lay behind the uterus; it was removed, and on subsequent examination it was found to form an oval swelling having a diameter of 2 in.; its walls were found to be thickened and its interior filled with firm blood clot.

CASE III.

E. C., aged 32, was admitted on December 3rd and operated upon on December 5th.

History.

She had been married nine years and had had one child seven years ago, and an abortion at the third month six months ago; after that, menstruation had been regular until October 1st, when her last period occurred; from that time until fourteen days before admission there was amenorrhoea and subsequently irregular loss. Eighteen days before admission there was a sharp attack of pain in the abdomen and back passage, and