removed the tumour at the earliest practicable date, as I have done so in a case of the kind without any disturbance to the regular course of gestation.

It will be observed that in the first three cases I deliberately operated before the onset of labour. It was my intention to do so in the last case, and, as already stated, labour had not really set in, although the membranes had ruptured some twelve hours previous to the patient's admission to hospital.

Where the probable date of full term can be calculated with any approach to accuracy, I think it is far better, as a rule, to select a time to operate that will anticipate the onset of labour, as everything can be arranged methodically beforehand. This is an unquestionable advantage in the case of those who, like myself, cannot calculate on being on the spot if suddenly required. In the case of a large lying-in hospital, where there is a resident medical staff, there are some advantages in waiting for the onset of labour. One of these is the uncertainty in many cases of calculating the approximate date for the completion of gestation; another is the greater certainty of having satisfactory uterine contraction after the removal of the placenta. On the whole, I think the advantages of operating at a time selected to suit the operator outweigh these considerations.

CONCLUSIONS.

In addition to the four cases of Caesarean section I have just related I have assisted one or other of my colleagues in three others, so that my experience extends to seven cases in all. This is not a very large number from which to make any sweeping deductions. There are, however, a few practical points in which my advice may be of some value to those who have no experience of the operation. These I shall briefly state:

1. The operation is one that may be undertaken with great confidence by any competent operator.

2. The incision should be commenced well above the umbilicus, so that the fundus of the uterus can be easily reached when the abdomen is opened.

3. When making the incision it is well to remember that the abdominal wall is very thin in the middle line, owing to the separation of the recti and the stretching of the aponeurosis. This being overlooked, the operator's knife may easily pass through the parietes in the first incision and wound the uterus, which, though not a serious matter, is inadvisable.

4. The uterine incision should be made as high up as possible. In the first place, because there will be far less haemorrhage from this portion of the uterine wall; and, secondly, because an incision that seems fairly high up when made into the front of the distended uterus will be found very low down when the latter is contracted, and will be much more difficult to suture than one placed higher.

5. When incising the uterus one should avoid opening the membranes until the uterine incision is completed to the required extent, so as to postpone the escape of liquor amnii.

6. It is not advisable to delay in the attempt to arrest the haemorrhage from the margins of the uterine incision by means of compression forceps. It is better to proceed quickly at this stage, and very effective haemostasis can be obtained if the assistant makes steady pressure with the hands on either side through the abdominal wall.

7. If the placenta be found immediately beneath the uterine incision, it is better to pass the hand between it and the uterine wall and separate it to the necessary extent, rather than to tear through its substance.

8. It is advisable, when possible, to grasp the child by the neck from the dorsal aspect with the thumb and two fingers, and extract the head first.

9. When the child is extracted it should be held by a special assistant while the operator places two compression forceps on the cord and divides it between.

10. After the removal of the child the uterus can be easily brought out through the abdominal wound. When this is done the margins of the upper portion of the abdominal incision should be temporarily held together with catch forceps and a large hot compress of gauze placed over it, against which the back of the uterus will rest.

11. If the uterus contracts spontaneously it is probably better to wait for the placenta to separate before removing it, otherwise it may be peeled off.

12. Haemorrhage during this stage and during the subsequent suturing of the uterus can be controlled by the assistant compressing the lower segment of the uterus and the broad ligaments with the hands, or, if found desirable, by employing either a rubber tube or a piece of folded gauze as a constrictor. If the uterus contracts firmly and the incision has been made high up there will be little haemorrhage.

13. If the uterus does not contract readily contraction should be induced, before commencing to suture it, by douching it externally and internally with hot saline or hot iodine solution poured from a jug and by manual pressure exerted on the fundus.

14. It is unnecessary to ligature any vessels in the uterine wall; they can be effectively controlled if the suturing is carried out in the manner already described.

In conclusion, I wish to remark that I did not take any steps to prevent a future conception in the second case, which was the only one in which the question could be entertained. I see no justification for such a proceeding. In my judgement there is no reason why Caesarean section should not be undertaken repeatedly, as has been done in several recorded instances. Again, I do not approve of the suggestion which has been advocated with a view to the repetition of the operation in future pregnancies—namely, to unite the uterus to the abdominal wall. Such a proceeding, in my opinion, would be calculated to interfere with the immediate contraction of the uterus and with its subsequent involution.

I am happy to say that I have no experience of extra-peritoneal Caesarean section, nor can I conceive any advantage that it would possess, while I believe that it has many objections.

REFERENCE.

¹ *Medical Press and Circular*, June 12th, 1907.

THE DIAGNOSIS OF ECTOPIC GESTATION.*

BY

R. DAVIES-COLLEY, M.A., M.C.CAMB.,

F.R.C.S.ENG.,

DEMONSTRATOR OF ANATOMY, GUY'S HOSPITAL.

I PROPOSE to consider the subject under three main heads:

1. The diagnosis of ectopic gestation either before rupture or after primary rupture when the ovum is still developing.

2. The diagnosis at the time of rupture, or what may be called the acute cases.

3. The diagnosis of tubal mole and tubal abortion, or the subacute or chronic cases.

This classification is purely a clinical one, but I think it will be found that all cases fall into one or other of these three groups.

DEVELOPING ECTOPIC GESTATION.

First, I would lay stress on the importance of the patient's past history.

The patient's age is not of great value, as ectopic foetation may occur at any time during the fertile period, but if a large number of cases are examined it will be found that the vast majority occur between the ages of 20 and 30—that is to say, during the earlier rather than the later years of the fertile period. There is a reason for this, as we shall see later.

The most important point in the past history is that of previous pregnancies. It is very frequently found that the patient has had one or more pregnancies, but that the last has been followed by several years of sterility. Now, it is probable that the implantation of the ovum in the tube is in most cases due to some form of obstruction in the tube. The commonest form of obstruction is undoubtedly that due to salpingitis, and here we have the explanation both of the history of sterility and of the common age incidence. An attack of salpingitis occurs after a confinement, and completely obstructs the tube lumen for the time being. Gradually the tube recovers and becomes pervious again, though this may not occur for some years after the attack of inflammation. As the lumen again becomes pervious it is at first only capable of admitting the passage of a spermatozoon, which is then able to

* Read before the New Cross Medical Society.

reach the ovum. The latter is too large to pass through the tube at the point of obstruction, and so begins to develop in the tube itself, on the distal side of the obstruction. This view is strengthened by the fact that in many cases it is possible to elicit a history of an attack of inflammation following the last confinement.

It is therefore of great importance to inquire into the previous history of all cases.

I have said that this will explain the age incidence also. Salpingitis is relatively uncommon in women over 30 years of age. So this very frequent cause is removed after this age.

The recent history is, of course, of still greater importance. In many, if not in most, cases the patient is impressed by the fact that she is pregnant. Not only that, but in a large number she actually feels that something is wrong, though the sensation is quite indefinite, and she is unable to point to any particular abnormality in the symptoms. This was well shown in a case I once saw.

A woman of 24 had been operated upon a year before for ectopic gestation, and she came complaining of similar symptoms. She was quite certain that she had another ectopic gestation. She had missed one period. On examination nothing abnormal was felt outside the uterus, and the uterus itself was slightly enlarged, so she was sent home. Two months later she was again admitted to the hospital with symptoms of rupture and severe internal haemorrhage. At the operation a three months' fetus was found loose in the abdominal cavity and there was a large rent in the remaining tube.

A case of this nature must, of course, be extremely rare, but it is interesting as showing this sensation of something wrong which led the patient to diagnose her condition in view of her past experience.

Amenorrhoea is present in only about half the cases, so that though it is of great importance when present, its absence by no means excludes ectopic gestation. Where amenorrhoea is not present there is generally some abnormality in the duration or regularity of the periods. Usually the period is shorter than normal, and frequently there are slight shows at frequent intervals, not occurring solely at the time of the expected period.

Pelvic pain is sometimes present, but more often there is merely the indefinite sense of discomfort mentioned above. Now and then, however, the patient describes sudden attacks of colicky pain situated in the iliac region, apparently due to contraction of the tube, or possibly to slight haemorrhage through the abdominal ostium into the peritoneal cavity.

The other signs of pregnancy are present as in uterine cases if the case is far enough advanced, but it must be remembered that most cases terminate during the second month of pregnancy, by which time the definite signs are not likely to be very evident.

When the pregnancy has extended into the later months as a rule there is continual pain on one or other side of the abdomen, and sometimes the reflex symptoms of pregnancy, such as vomiting, are more than usually marked.

On examination in the early months an elastic rounded tumour can generally be felt to the side of and behind the uterus, generally rather tender, but not nearly so much so as in cases of inflammatory masses. One or two observers have actually felt contractions occurring in the tumour, but these are not to be expected, though when they do occur they are, of course, of great value in diagnosis.

The uterus is slightly enlarged, but not so much so as in a normal pregnancy, and it is displaced forwards and slightly to the opposite side. The cervix is usually softened, as in intrauterine pregnancy.

In the later months the uterus is much enlarged, attaining to about the size of a four months pregnancy, and is much displaced laterally. The pregnancy sac generally occupies one iliac fossa, projecting into the side of the abdomen to a height more or less consistent with the date of pregnancy, but it is not as large as the normal pregnant uterus of the same date, owing to the lack of liquor amnii. At this stage the tumour is almost certain to be fixed, as the pregnant sac has probably burrowed in between the layers of the broad ligament, and is directly attached to the abdominal wall. An exception must be made in those cases where the ovum is lying in a rudimentary cornu; in these cases the tumour may be freely movable. The other cornu is always sympathetically

enlarged, and can be felt distinct from it, though connected by a pedicle with it.

Diagnosis.

The conditions which may be mistaken for a developing ectopic gestation are not very numerous.

In the early months a normally pregnant uterus sometimes simulates it, owing to irregular contractions of one or other cornu. I have seen cases in which one half of the uterus was firmly contracted, while the other half was quite relaxed and felt cystic. This condition usually occurs about the third month, and is the more likely to be mistaken for an ectopic gestation because it gives rise to more or less intense colicky pain in the side of the pelvis or iliac region. If left to itself the contractions pass off, and the uterus is felt to be of normal shape again. A small cystic ovary or hydrosalpinx may also feel like a pregnant tube, but here, unless there happens to be an intrauterine pregnancy as well, the uterus will be felt to be of normal size, and the cervix will be firm and contracted. In cases of doubt, where intrauterine pregnancy is present, the normally proportionate increase in its size will be sufficient to exclude ectopic pregnancy if the patient is watched for a while.

In the later months there are more difficulties. I think the most common mistake is to diagnose pregnancy complicated by a fibroid. The appearance in these two conditions is very similar. In both there will be a cystic tumour formed by the pregnant sac situated in the abdomen to the side of the middle line, while a rounded hard tumour, representing the fibroid or the body of the uterus, as the case may be, will be felt occupying the pelvis or the opposite iliac fossa. In both there is almost certain to be a good deal of pain. There are, however, one or two points which may help in the diagnosis. In the case of ectopic pregnancy the fetal parts are sometimes felt unusually distinctly owing to the thinness of the sac wall and the lack of liquor amnii. This is not a very trustworthy sign, as in many multiparae the abdominal wall is very thin and the fetal parts may be felt with extraordinary plainness.

A fibroid tumour is usually incorporated in the wall of the pregnant uterus, but where a pedunculated subperitoneal fibroid exists the diagnosis may be extremely difficult. The history will be of great help. When the pregnancy has developed in the tube and become secondarily implanted in the broad ligament one can usually obtain a history of an acute attack of pain during the second or third month corresponding to the time of the primary rupture.

In cases of doubt the only way to settle the diagnosis is by using a uterine sound and observing the direction and distance to which it can be passed. If it passes into the solid feeling mass, and only for a short distance, the diagnosis of ectopic gestation is certain.

Other tumours, such as an ovarian cyst complicating pregnancy, may simulate ectopic gestation. These are very apt to become acutely twisted during pregnancy and may give rise to the symptoms of rupture of a gestation sac. The diagnosis is not generally difficult as the cystic nature of the tumour will be apparent and the displacement of the uterus is not, as a rule, great.

I saw one very interesting case recently in which a chorion-epitheliomatous growth of the uterus was complicated by a large multilocular lutein cyst of the ovary, so that there was a hard tumour to one side of the pelvis with a cystic mass on the other side reaching up into the abdomen. The resemblance to ectopic was still further increased by the fact that she had a history of five months' amenorrhoea and the size of the cystic tumour corresponded exactly to that of a five months' gestation. She was so ill that an exploratory laparotomy was performed without delay, and the condition I have described found.

ACUTE CASES.

Diagnosis of rupture of an ectopic gestation is not, as a rule, difficult. The sudden acute pain low down in the abdomen or pelvis, followed by collapse from haemorrhage, is usually enough to make the diagnosis certain.

It must be remembered that often very little help is given by the patient's recent history, and she may have had no idea that she was pregnant, though usually, as I have already explained, there is either absence or some

irregularity of the periods immediately preceding the rupture.

There are one or two points to be borne in mind in connexion with ruptured ectopic gestation which may be very misleading if they are allowed to have too much weight in the diagnosis.

The vaginal haemorrhage which always occurs after rupture often does not begin until a day or two after the rupture has taken place, and even when it does begin no pieces of decidual membrane separate for some days. In my experience the separation has generally taken place about the tenth day—too late to be of any assistance in acute cases. The blood which escapes into the abdominal cavity will gravitate to the pelvis and eventually form a firm clot there—a pelvic haematocele—but this clotting is not sufficiently firm to produce a palpable tumour behind the uterus until the third day after rupture, too late again to be of use in an urgent case.

It is generally possible to make out the presence of an enlarged tube behind and to one side of the uterus, though the great abdominal distension and the tenderness over the seat of the rupture may make bimanual examination extremely difficult. However, even if the tube cannot be felt, there is almost always a sense of resistance on the side where the rupture has occurred.

Several acute abdominal conditions may simulate ruptured ectopic gestation. The chief of these are acute appendicitis and rupture of hollow viscera, such as those due to gastric or duodenal ulcers.

With appendicitis the pain is not so sudden in onset, and the patient has almost always been unwell for some days before the acute symptoms started. The pain is usually also rather higher in the abdomen, though it is true that the pain from ruptured ectopic may be considerably above the pelvic brim. Then there is generally some history of intestinal disturbance in the immediate past. The great pallor from internal haemorrhage is absent.

In cases of general peritonitis from whatever cause, the rigidity of the whole abdominal wall is generally sufficient to put out ectopic gestation, for in the latter condition, though the abdomen may be greatly distended, the rigidity is limited to the area immediately over the ruptured tube.

With rupture of gastric and duodenal ulcers, the high situation of the pain, combined with the rigidity of the muscles in the epigastric region, is enough to distinguish them from tubal gestation.

CHRONIC CASES.

In this group I include all cases of tubal mole or abortion and cases of ruptured tube in which a pelvic haematocele has formed.

I admit that many of these latter cases present symptoms so severe as to be worthy of classification with the acute cases, but I prefer to classify them as I have done because the mere fact that the effused blood has had time to clot is some evidence of chronicity, and as a matter of fact the difference of their symptoms from those of the more chronic forms is one of degree only.

The main symptoms of this group are those of pressure, and vary according to the amount of blood extravasated in the pelvis. The history is always of the utmost importance. When a haematocele has followed tubal rupture there is generally a history of acute onset of iliac pain some days previously, which has been accompanied by attacks of fainting and perhaps vomiting. Sometimes there is only one attack of pain, but often there are recurrent attacks extending over several days, the first one usually being the most severe, the patient between the attacks being fairly comfortable.

Haemorrhage from the vagina is almost always present, but does not, as a rule, begin till a day or two after the onset of pain. It is usually not severe in amount, but continuous and very dark in colour. This darkness of its colour is very characteristic. A week or more after the onset of haemorrhage pieces of decidual membrane will be found in the discharge, and they may be recognized by microscopic examination. Sometimes the uterine decidua comes away in one piece, and presents the typical triangular shape of the uterine cavity.

The continuous nature of the uterine haemorrhage is a very important sign—in doubtful cases, I think, the most important. It may last for many weeks after the decidua

has been expelled, and only seems to stop with certainty when the clot in the pelvis has been removed by operation. The pressure symptoms supervene about three days after the rupture has taken place. The patient will complain of a sense of weight in the perineum accompanied by obstinate constipation and frequently difficulty of micturition, or in bad cases complete retention of urine.

The general symptoms will depend upon the amount of blood lost. If this is great, there will be pallor and rapidity of pulse-rate; if small, the outward appearance of the patient may be healthy.

In cases of tubal mole and abortion the onset of the pain is not so sudden or definite, and the symptoms are not nearly so severe. Generally there are repeated attacks of colicky pain in the iliac region, gradually giving place to a dull ache either here or deeper down in the pelvis. Vaginal haemorrhage is present as in cases of rupture, and has the same continuous character. The pressure symptoms are less marked. Frequency of micturition is much more common than retention. The general symptoms are less severe, as a much smaller quantity of blood has escaped.

In all cases, whether of rupture or mole, the temperature tends to be raised after the first few days, and to remain above normal for a considerable time while the effused blood is being absorbed. This is due to the liberation of toxic substances in the blood clot and not to infection by micro-organisms, though occasionally infection does take place. The temperature is not as a rule very high, between 99° and 100° commonly, though I have seen it as high as 102° without any sign of infection. It may lead to considerable difficulty in the differential diagnosis.

The physical signs will depend upon the amount of blood that has escaped into the pelvis; in cases of rupture the blood escapes rapidly and collects in Douglas's pouch, forming a rounded tumour behind the uterus and compressing the rectum against the sacrum. The blood tends to encircle the rectum, and rectal examination will reveal two processes extending from the main tumour back to the sacrum on either side, forming a collar round the front and sides of the bowel.

The uterus is generally displaced forwards against the pubes, and may be pushed upwards as well. It is generally possible to distinguish it from the main tumour.

The tumour may extend upwards into the abdomen, reaching sometimes as high as the umbilicus. In these cases the upper outline is dome-shaped, but, as a rule, rather indefinite. Its consistence is soft and boggy at first, but gradually becomes firmer as the clotting proceeds, though it never becomes as firm as that of a fibroid.

In cases of tubal mole and abortion the blood escapes much more slowly, and clots round the tube as it reaches the peritoneal cavity, forming a rounded boggy swelling to the side of and behind the uterus, displacing it towards the opposite side. The mass is generally closely connected to the uterus, and may attain to a considerable size, though not so large as that of a haematocele from rupture. It is usually fixed by adhesions, but not always. I have seen one as large as a clenched fist, which was freely movable in a vertical direction. There is almost always a good deal of meteorism, which makes accurate examination very difficult, and the difficulty is still further increased by the tenderness over the tumour.

Diagnosis.

The main conditions from which diagnosis is to be made are tumours impacted in the pelvis in association with pregnancy, retroversion of a gravid uterus, and inflammatory condition of the appendix and Fallopian tubes, and of the pelvic cellular tissue.

A fibroid or ovarian cyst impacted in the pelvis during pregnancy is usually not easily mistaken for a haematocele, though the onset of symptoms may be very similar. The tumour in these cases is much more definite and uniform in outline. A fibroid is much harder and an ovarian cyst much more elastic than a haematocele. The rectum is flattened out against the sacrum, and there is no tendency to the formation of a "collar" round the bowel. These points and the absence of collapse from loss of blood are generally sufficient to distinguish the condition from haematocele.

Retroversion of the gravid uterus does not give

symptoms until the end of the third month of pregnancy' and a history of three months' amenorrhoea is usually obtainable. On the other hand, with a haematocoele the period of amenorrhoea is very much less. The haemorrhage with retroverted gravid uterus is irregular and discontinuous. The chief point of distinction is to be found by examination. With retroversion of the uterus the cervix is tilted forwards and upwards, sometimes so much so that it is extremely difficult to reach it with the finger, and the body of the uterus cannot be felt in its normal position, whereas with haematocoele, though the uterus may be very much displaced forwards, the cervix will be directed downwards and the body can usually be distinguished above it.

The soft consistence of the tumour and its definite outline are quite different from those of a haematocoele.

Inflammatory affections present the greatest difficulties, and in many cases the diagnosis is impossible.

Pelvic cellulitis presents many points of similarity to haematocoele, when the inflammatory mass forms behind the uterus. It tends to encircle the rectum in the same way. It is accompanied by febrile disturbance and it usually originates in association with pregnancy. With cellulitis, however, the mass is more diffuse and firmer, and less rounded below, and the uterus, though fixed, is seldom much displaced from its normal position. The history, too, is different. Cellulitis almost always follows either a full-time labour or an abortion, and its onset is much more gradual, and is preceded by rise of temperature, whereas haematocoele is acute in onset and the rise of temperature follows the formation of the tumour and seldom reaches to so great a height. An appendicular swelling is situated at a higher level, usually entirely above the pelvic brim, though it sometimes extends into the pelvis. It, again, is less defined. The constitutional disturbance and rise of temperature are greater, and there is generally a history of intestinal disturbance. Occasionally tubal mole or haematocoele is accompanied by diarrhoea, presumably from irritation of the bowel by pressure, and in these cases it is difficult to exclude appendicitis.

The condition which bears the closest resemblance to these chronic cases of ectopic gestation is undoubtedly salpingitis. Here not only the physical signs but also the symptoms and history may be very misleading. It is not unusual for an attack of salpingitis to be preceded by suppression of a menstrual period, while the onset of the attack is accompanied by more or less profuse vaginal haemorrhage. This history, together with the physical signs of a mass behind the uterus, is apt to be very confusing, and in some cases I do not think it is possible to arrive at a diagnosis without prolonged observation of the patient.

There are, however, several points of difference a consideration of which may be of great value in assisting in the diagnosis.

Salpingitis usually follows a labour at term or an abortion or an attack of gonorrhoeal vulvitis, and there will generally be a history of one of these. There are, however, cases of chronic salpingitis which remain quiescent for long periods, occasionally lighting up and giving rise to acute symptoms. With these there will be no history of a recent cause, but it is generally possible to obtain a history of a similar attack in the past, or perhaps several similar attacks spread over a period of some years. It must not be forgotten that ectopic gestation may be a sequel to an old attack of salpingitis.

I have said that salpingitis may cause suppression or postponement of a menstrual period. The haemorrhage, when it occurs, is different from that due to ectopic gestation. It is usually much more profuse, and its colour is bright red, and it subsides after a week or ten days. In ectopic gestation the external haemorrhage is not severe, but continues for a long period—sometimes over many weeks—and is very dark in colour. With salpingitis there is also complete absence of a decidua cast. I regard this chronicity of the haemorrhage as the most important sign in doubtful cases.

Both conditions give rise to pyrexia, but that of salpingitis is, as a rule, very much higher than that of ectopic gestation. Of course many cases of salpingitis occur where the temperature never rises to any great height, but these must be regarded as the exceptions.

Signs of pregnancy, if present, are of course conclusive;

but it must be remembered that most cases of ectopic gestation terminate very early, before the signs of pregnancy are at all well marked.

There are also one or two points of difference in the character of the tumour of the two cases. With salpingitis the tumour is, as a rule, central, both tubes being affected, and it is usually irregular in outline. Sometimes it is possible to trace the convolutions of the tubes bimanually, though they are generally obscured by peritubal inflammation. On the other hand, a peritubal collection of blood is always single and almost always situated at the side of and behind the uterus. Examination in cases of salpingitis usually causes more pain, but this is not a very reliable feature.

Finally, there is one very important point. In cases of salpingitis the tendency is for resolution to occur quickly under appropriate treatment, and for the tumour to become rapidly absorbed. With haematocoele there is also a tendency for absorption to occur, but this process is extremely slow.

I think that it may be safely said that if with a fortnight's treatment the tumour does not diminish in size and there are no signs of the presence of pus, a diagnosis of ectopic gestation may be made with confidence.

To sum up, salpingitis should be suspected in the presence of:

- A history of previous similar attacks or of a recent source of infection.
- Haemorrhage profuse but not persistent.
- Considerable pyrexia.
- Tumour irregular, central, and very tender.
- Rapid resolution.

And haematocoele may be diagnosed where there is:

- No history of previous attacks and no recent source of infection.
- Where the haemorrhage is slight in amount but persistent.
- Pyrexia slight.
- A unilateral and not very tender tumour.
- Very slow resolution.
- Signs of pregnancy in breast, etc.

ALBUMINURIA IN PREGNANCY.

BY

HUGH M. RAVEN, M.R.C.S., L.R.C.P.,

BROADSTAIRS.

Of all the cases which cause anxiety to the general practitioner, none cause more than those of albuminuria in pregnancy. I have been fortunate, or unfortunate, enough to have had the experience of three such during the past year, and I think that though they are not perhaps startling, they will be of interest. I am thankful to say that the three mothers and two babies are alive and well.

CASE I.

The first was a young woman aged 21 in her first pregnancy. I had vaguely suspected her because she had a puffy and pale aspect, yet I could not find any albumen in the urine at several examinations. One evening towards the end of the ninth month I was called to her in a hurry, and was alarmed to find considerable oedema of the legs and face, and that she was having an acute attack of epigastric pain and headache. She said that she thought she had caught a chill when in the scullery. Labour had not apparently commenced, and I hastened to give her a strong dose of calomel and jalap, and to order a hot pack, finding the urine full of albumen. She vomited the former, but was eased somewhat by a dose of aspirin, which made her perspire freely. Within a few hours I was called hurriedly by her nurse, and before I could get there the child was born, with (as the nurse described) only two violent labour pains, which to my surprise had not caused any laceration of the perineum or elsewhere. She went on quite well until about the sixth day, when she had a severe attack of neuralgia on the left side of the head, and almost complete left hemianaesthesia and some weakness of the left lower limb. She eventually made a quite satisfactory recovery, the anaesthesia taking two or three months to pass off completely.

CASE II.

The second was a delicate primipara aged 38. I was naturally anxious about her, but she had shown no signs of albuminuria. In this case labour came on at the eighth month, and was apparently progressing satisfactorily. Before the os uteri had fully dilated she suddenly had a severe convulsion. Luckily I was on the spot, and was able to give her chloroform immediately. A specimen of urine obtained by catheterization showed large quantities of albumen. She had another convulsion before she had fully come round from the anaesthetic, and with the