Another thing which complicated matters was the nephritis with threatening of uraemia. If left to instrumental delivery the labour was certain to have been protracted, as, in addition to the pelvic deformity, the vulvar orifice was small and anterior in situation with a long and rigid perineum.

Operation.

The operation was carried out according to the description of Dr. Herman, and as I have seen him do it. No pessary was used for the incision into the uterus. The amount of blood lost was not great. One interesting feature was that the womb would not contract properly till the deep sutures were tied, but remained very flaccid, so that it could be indented easily by the fingers. It seemed as if the uterine muscle was paralysed and incoordinated by the cut, and it was only when this was closed that tone was recovered and hardening secured. The indentation by slight pressure showed how easily an inversion could be started by incautious force in expressing the placenta with a flabby uterus. Sterilization was effected at the wish of the patient.

The stretched abdominal wall retracted considerably during convalescence, and the scar of the incision measured but 4½ in. when the patient left the hospital.

ON THE CAUSE OF ACUTE ILLNESS SUPERVENING DURING MENSTRUATION.

By THOMAS HOLMES, M.S., M.D.LOND.,
SOUTHESEA.

For some years I have been looking for cases that bear upon the subject forming the heading of my paper, as the ordinary explanation of such cases has not seemed to me to be satisfactory, and the following seem to give me some clue:

CASE I.

I saw, in 1894, a private patient, aged 33, unmarried, who had been taken ill very suddenly during menstruation, the symptoms being frequent vomiting, accompanied by intense pain in the left iliac region. It was, I was informed, her first attack.

Condition on Examination.—Temperature 102°, furred tongue, quickened hard pulse, abdomen slightly distended, moving little with respiration, most rigid over the left iliac region; there was some general tenderness over the whole of the abdomen, much more pronounced over the left iliac region, but no abnormal swelling could be felt. Heart, lungs, and urine were normal, and the breasts and hymeneal orifice were virginal. On rectal examination there was tenderness in the left posterior quadrant of the pelvis, and bimanually this was found to be due to a small, tender swelling occupying the position of the left ovary; menstruation had ceased, and the pain was described as coming on suddenly and becoming of great intensity soon after. There was no sign of urethritis or vaginitis so far as external appearances went.

CASE II.

An unmarried girl, seen in 1895. The symptoms were very similar; she had all the appearances of a virgin.

CASE III.

Seen in 1899; very similar to above.

CASE IV.

Seen in 1894. The patient was virginal as far as could possibly be ascertained, and had been in good health up to the time of being seized with a sudden pain in the right side during her menstrual period; she was at the moment engaged in helping with the family washing. Intense pain then set in in the lower part of the abdomen on the right side.

Condition on Examination.—When I saw her, vomiting was very troublesome indeed; the temperature was 102°, and the pulse above 100, hard and bounding. Menstruation had been quite regular up to the present time. The breasts and vulva were virginal, and there was no sign of any abnormal discharge from the vagina or urethra. The heart and lungs were normal. There was slight distension of the abdomen, which moved little with respiration; there was pain on pressure over the right iliac region, and some slight alteration in note on percussion over the same area. On rectal examination the uterus was found to be small, and in the situation of the right ovary there was marked tenderness, but such pain was caused that further examination was abandoned. There was no pain or swelling over the caecal region, and the lesion was evidently limited to the pelvic cavity. The vomiting was very persistent for several days, the temperature and pulse-rate both remaining high; the temperature then began to subside, and at the end of five days her condition was much better, the

vomiting having stopped; soon after this the temperature fell to practically normal.

A much more satisfactory examination of the abdomen was now possible, and the following state of things was found: Above Poupart's ligament on the right side, and extending upwards into the right iliac fossa, was a soft, doughy, elastic swelling, with a rounded surface, dull on percussion, fixed, and not particularly tender; it was below the caecum, and evidently rising out of the pelvic cavity. On examination by the rectum this swelling was found to be continuous with a soft mass filling up the right half of the recto-uterine fossa and the pouch of Douglas, and bulging into the posterior vaginal fornix; so far as clinical evidence went there was no doubt the swelling was blood clot. Under treatment, after some weeks the swelling all subsided, and the patient quite recovered, and I have heard since she has kept quite well, has married, and borne a child.

In all these cases the patients had been quite well previously, had been taken suddenly ill during apparently a normal menstrual period, and in one case at least had been engaged at the onset of the attack in fairly arduous physical labour. Could the swelling that appeared in Case IV have been of any other nature than blood, and if it were blood how is its appearance explained? These seem to me to be the crucial questions. A swelling of this nature conceivably might be due to a collection of pus, an encysted collection of fluid, "pericystoma," or, lastly, a new growth.

New growth may definitely be put on one side by the after-history of the case, as when I last examined her the swelling had gone; as regards a "pericystoma," the physical characters were unlike this, there was no true fluctuation or thrill in the mass, and no history of preceding obscure abdominal symptoms and feverishness. These points were against it being a collection of pus, as were also the following: It was evidently superficial to the psoas muscle, there were no signs of any spinal or joint disease, or disease of the ilium, and the patient got quite well again, without any discharge of pus from anywhere.

Appendicular trouble, or inflammatory trouble in connexion with the caecum, were also excluded by the consistency of the mass, by the absence of tenderness, by the absence of involvement of the parietes, as well as by the other features mentioned.

If blood, the following sources of origin may occur: the ovary, the tube, the broad ligament, and the vessels. The possibility of some blood condition such as scurvy must also be considered; but this in this case I think could be put out at once by the woman's general condition, as might also the question of a diffusion of blood from a ruptured aneurysm.

All the accompanying features of an extrauterine gestation of any kind were missing, and the suggestion that a clot had been produced by rupture of a varicose vein in a broad ligament seems to be more theoretical than practical; moreover, in that case some effusion into one or other broad ligament would be expected, but this was not present.

There are left for consideration, therefore, the tube considered apart from tubal pregnancy, and the ovary. I was led to the conclusion that the ovary was the source for the following reasons:

1. Normally, during menstruation the ovary is engorged with blood, and after the rupture of a Graafian follicle and the escape of the contents, the cavity left is obliterated by blood clot, produced by haemorrhage into the interior of the follicle.

2. The character of the pain when the tender lump discovered by recto-abdominal examination was pressed upon; it was described as sickening, and increased the nausea of the patient.

3. The discovery of a definite small tumour; so far as I know where efflux of blood through a normal tube has been considered possible the tube has simply acted as a channel of communication, the only abnormality supposed to exist being an abnormally patent ostium abdominale, and a tube under these circumstances would neither be tender nor palpable.

4. I found in the Royal College of Surgeons Museum an ovary somewhat enlarged, filled with blood clot which had infiltrated the stroma, and seemed to have disorganized the gland.

5. A Graafian follicle if ripe and cut into at the time of an operation may give rise to very severe haemorrhage. Granted that the ovary is the source of the haemorrhage, what are the conditions under which this may take place?

In these cases a general cause could be put out at once, as also any question of any of the infectious diseases, and we are left with :

1. The bursting of a small ovarian cyst, causing haemorrhage into its interior and subsequent rupture in one case.

2. Ovarian gestation.

3. New growth ; which latter two do not, I think, need further discussion owing to the concomitant circumstances.

4. Haemorrhage from a ruptured Graafian follicle, engorged with blood at the menstrual period, in some of the cases (I, II, and III), the blood effusing into the stroma of the ovary in a similar way to that shown in the specimen referred to above, and in the other case bursting its way through to the surface, and then pouring into the recto-uterine fossa, and thus forming a haematocoele. Vomiting in these cases would be pronounced, both on account of the damage done to the ovary itself, and also of the irritation of the peritoneum set up by the effusion.

As to the possibility of there having been present small ovarian cysts in each case, I do not see the necessity of the hypothesis. There was no previous history of any discomfort—not in itself, it is true, a point of much value ; there was no recurrence of the trouble in two cases at all events to my personal knowledge, nor was there any sign of free fluid in the abdomen at any time.

I have therefore come to look upon haemorrhage from a Graafian follicle engorged with blood at the menstrual period as being the starting point of one set of cases, and it is possible that undue exertion, by increasing the intra-abdominal pressure, as might happen in washing clothes, might be the last factor in determining the rupture.

Of the next class of case I have only seen one example so far.

A patient, whilst still in bed during her convalescence from an attack of acute double lobar pneumonia, began menstruating, and in its course was seized with acute pain in the left iliac region, accompanied by feverishness and vomiting.

Bimanual examination revealed an enlarged, prolapsed, and very tender ovary. This was the first attack of anything of the kind, her last child having been born some eight years before, and her health having been very good up to the time of the attack of pneumonia.

This attack occurred about seven years ago, and the patient still suffers slightly from chronic pain in the left iliac region, especially before the periods. When I examined her a few months ago I could feel that the left ovary was enlarged and bound down by adhesions to the back of the broad ligament, so that it could easily be reached from the lateral fornix. For several other reasons the patient has hitherto refused any operative measures.

Here, doubtless, blood infection by the pneumococcus has to be considered, as either attacking a healthy ovary and setting up an ovaritis, or attacking an ovary in the substance of which blood had been effused owing to the rupture of an engorged Graafian follicle at the menstrual period, and causing an infection of it, and so setting up an inflammation, as in this case ; there was very much more after-effect, and very much more perioöphoritis, as was shown by the chronic pelvic pain, which was not present afterwards in Case IV, and also by the displacement and fixing of the ovary in an abnormal position, due to the adhesions forming between the epithelium covering the ovary and the peritoneum of the broad ligament. Other cases may originate, I think, in sepsis, and the following bears this out :

A multipara, aged 42, whilst menstruating, was taken suddenly ill with pain in the left side, accompanied by vomiting, feverishness, and obstinate constipation. She went to bed, and after a couple of days I was sent for. I found her in great pain, temperature 103°, pulse 110, hard and full ; vomiting constant but not faecal ; the bowels had not been open for some days ; a mass could be felt in the left iliac fossa, and bimanually part of the swelling was found to be situated in the left broad ligament, to be fixed, and to be very tender, and was evidently a cellulitic mass.

On rectal examination the cellulitic mass could be felt to be pressing on the bowel, so that the whole tumour was formed of impacted faeces and a cellulitic mass. The cervix was lacerated on the left side, was in a condition of ectropion, and showed well-marked erosion. The patient had been quite well before the attack.

She was still menstruating slightly, and there was a foul vaginal discharge, and, as was to be expected, I found on inquiry that she had suffered from leucorrhoea for some time but had never had it attended to ; external and internal

haemorrhoids were present, and were painful and inflamed, and the external genitals and thighs were in such a dirty state, being smeared with faecal and blood stains, that I remonstrated with her. She then told me that owing to the piles she had never been able to wear diapers at her periods for years. Taking this condition in conjunction with her illness and the foul vaginal discharge, I came to the conclusion, rightly or wrongly, some slight injury to the cervix, probably marital, had exposed her to septic absorption, and so set up cellulitis, the menstrual fluid affording a better chance of life to septic germs than the mixed cultures ordinarily present in the vaginal canal in her case.

Acting on this opinion I had her thoroughly cleansed, internally as well as externally, by mercurial douches and washes, ordering antiseptic douches regularly. The obstruction of the bowels was relieved finally by enemata, though at one time I thought I should have to do colotomy ; and she made a very quick recovery, the cellulitic mass absorbing rapidly.

CASE OF OBSTRUCTED LABOUR DUE TO OSTEO-SARCOMA OF PELVIS.*

By M. B. RAY, M.D., C.M., L.R.C.P., L.R.C.S. EDIN.,
SURGEON TO THE HARROGATE INFIRMARY.

THE following case, which I have attempted to illustrate by means of a rough diagram, is one of somewhat rare occurrence in obstetric practice.

It is by no means uncommon to find labour obstructed by uterine myomata or ovarian cystomata, but in this instance the new growth had no connexion with either uterus or adnexa. The tumour, which was found later to be a mixed-celled sarcoma, probably dated from the commencement of the patient's second pregnancy, as it was at that time she first began to feel marked pelvic discomfort. Her eldest child was then 9 months old.

I had no opportunity of seeing her before her admission to the infirmary under my care, but I have been able, through the kindness of her medical attendant, to gather the following facts as to the previous history.

Fig. 1.—A, Tumour.

The patient was a young married woman, aged 20. She was one of seventeen children, and one brother, aged 15, suffers from hip-joint disease. She had had one child, now about 18 months old. Her last labour was completed naturally and she made a good recovery. Her menstrual history was normal and she had had no miscarriages. With the exception of a little transient anaemia she had always been healthy.

During the early months of her second pregnancy she noticed a little pain and stiffness in the region of the hips when walking, and there was some alteration in gait attributed by her friends to over-exertion from carrying her growing infant. These symptoms gradually increased, until at the end of the third month she was unable to stand, sit, or lie on her back without great pelvic pain. She never had any actual paralysis of the lower limbs, but was always able to move them about in

* A paper read before the Yorkshire Branch of the British Medical Association.