no dilatation ensues under an anæsthetic, the benefit of electrolysis is most marked.

Results of Fifty Cases of Urethral Stricture treated by Electrolysis.

No.	Name.	Age.	Date of Treatment.	Result.
1	D. C.	52	1886	Letter eight months after to say he is well.
2	T. W.	53	1885	Recurred a year later; electrolysis again; urethrotomy.
3	J. M.	37	1885	Extravasation in 1884. No. 11 passed June, 1889.
4	J. L.	31	1886	Relieved for a time; recurrence. Lost sight of.
5	B. B.	62	"	No. 12 passed eighteen months later.
6	C. D.	29	1885	Lost sight of.
7	G. S.	27	"	Only came once.
8	W. D.	39	1886	Not seen after treatment.
9	J. F.	46	"	Up to 9 English; bronchitis. In hospital, 1889, with partial recurrence.
10	W. B.	37	"	Well two years after.
11	T. T.	24	1886	(orifice) Only came once.
12	A. L.	29	"	Returned in 1889 for dilatation.
13	T. P.	27	"	No. 12 English passed eighteen months later.
14	W. T.	36	"	No. 10 English passed twelve months later.
15	H. S.	34	"	Not seen after treatment.
16	S. L.	41	"	Letter two years after saying he was well.
17	W. A.	29	"	Lost sight of.
18	F. A.	30	"	"
19	J. B.	22	"	Seen in 1888. Admitted No. 10 English.
20	J. H.	38	"	Sent patient to me from America, 1888, who said he was well.
21	O. L.	36	"	Seen in 1887. No. 10 passed.
22	A. E.	35	"	Not seen after treatment.
23	E. J.	49	"	Constant recurrence; thirteen times dilated.
24	T. Mc.	52	1887	Went away in mid tide of treatment; extravasation two months later.
25	J. P.	38	1886	Seen well in 1888.
26	J. D.	49	1888	One sitting; in a hurry; urethrotomy.
27	W. P.	24	1887	Constant recurrence; cured by urethrotomy.
28	F. A.	30	1884	No progress; not seen since.
29	A. E. E.	25	1887	Seen well in 1889; since lost sight of.
30	W. B.	37	"	Well in 1889; says he has passed catheter once or twice.
31	W. G.	32	"	One sitting; not seen since.
32	S. M.	35	1886	One stricture gone; other admits No. 9 English, 1888.
33	F. H.	36	1887	Admits No. 10, 1888.
34	G. E. P.	39	"	In a hurry; divided later.
35	H. T. N.	23	"	No. 11 passed in 1888.
36	J. McC.	44	"	Constant recurrences.
37	W. G. S.	40	1889	November 2nd, passed No. 12.
38	H. H.	53	1885	No. 12 passes easily; suprapubic lithotomy.
39	K. R. W.	39	1887	Letter to say he has had no trouble since.
40	E. H.	44	"	Not seen since.
41	O. N.	56	1888	Recurrence.
42	E. P. S.	54	1887	Hurry; urethrotomy.
43	J. F. W.	32	1888	"
44	J. P. L.	36	"	Letter, 1889, says he is well.
45	E. W.	39	1887	Recurrence, 1888.
46	M. O.	43	"	No. 10 English passed in 1889.
47	H. R.	51	"	A previous unsuccessful urethrotomy; letter, well, 1888.
48	B. S.	29	1888	Not seen since.
49	W. E.	34	1887	No. 12 passed in 1889.
50	H. A.	59	1888	Hurry; urethrotomy.

CASES OF PELVIC ABSCESS TREATED BY ABDOMINAL SECTION.

By A. W. MAYO ROBSON, F.R.C.S.,

Honorary Surgeon to the Leeds General Infirmary; Honorary Consulting Surgeon Batley Hospital; Lecturer on Practical Surgery in the Yorkshire College, and Examiner in the Victoria University.

ABSCESSSES situated in the pelvis frequently offer very unfavourable conditions for rational treatment, since the abscess cavity either cannot be safely reached, or, if reached, is with difficulty cleared out and drained. These considerations have so influenced gynaecologists that the great majority of them in such cases are content with expectant treatment, although the feasibility and safety of opening the abdomen, searching for, employing, and draining such cases, has been proved by Mr. Lawson Tait and others.

The pelvic abscesses referred to below have nothing to do with lumbar, psoas, and other collections of pus, which have distinct origins outside the pelvis, but are to be considered as mere sequels to certain diseases, such as pelvic cellulitis, pelvic peritonitis, and

hæmatocoele, or to ovaritis, salpingitis, or breaking down of tubercle, the one thing common to them all being the presence of pus in the pelvis.

Every surgeon knows the course pursued by such collections; their tendency towards continuous or intermittent evacuation into hollow viscera, either vagina, rectum, or bladder; or by long circuitous fistulæ on to the surface; the violence of the inflammatory storms which occur at irregular intervals after a delusive period of quietude; the condition of impotency or infirmity in which they leave women, even after a spontaneous cure, which always demands a very long time; and their frequently fatal termination, either by the pus bursting into the peritoneum and setting up acute peritonitis, or by the constant discharge bringing on hectic fever; or, more indirectly, by the supervention of tuberculosis or amyloid degeneration. There are some fortunate cases where the abscess projecting into the vagina allows an opening to be made and drainage to be effected, but these are exceptional; in the greater number it is impossible to discover by the touch a fluctuating point in the hard plastic mass which fixes the uterus. Even if the abscess can be opened by the vagina or rectum, it is a most difficult matter to keep the cavity aseptic and to secure efficient drainage.

If, then, expectant treatment is so unsatisfactory, what other means have we at our disposal? First, aspiration, which, according to Mundè, is a successful mode of procedure. In several cases where there have been small and localised abscesses, I have found this simple method efficient, but it is uncertain in large, and useless in multiple, abscesses, and its indiscriminate use is not unattended by danger, for it must be borne in mind that important structures often overlie the tumour, and have to be pierced before it can be reached. Secondly, subperitoneal laparotomy, as performed and advocated by Dr. Pozzi, of Paris, of which Case III is an instance. It would seem to me, however, that this method can only have a very limited application, and can only be safely adopted where there are signs of the abscess approaching the side of the pelvis, as in the example I have mentioned. And, lastly, abdominal section, of which the other cases form good examples.

CASE I.—Pelvic Abscess Discharging into Rectum for Six Years: Opened and Drained Anteriorly through the Peritoneum: Cure.—Mrs. A., aged 29, consulted me in July, 1886, saying that she had been married five years, but that she had had no children. About three months after her marriage, during a menstrual period, she caught a chill when at a picnic, and was seized with a severe pain on the left side of her abdomen; this was followed by a serious illness, which kept her in bed for three months, at the end of which time the abscess burst into the rectum, giving immediate relief to her urgent symptoms but leaving a persistent discharge of pus, which during the whole period of four years before she saw me had never been less than from 1 to 2 ounces a day. She had had feverish attacks from time to time, accompanied by severe pain in the lower part of the abdomen, especially on the left side. From having been a stout, good-looking, rosy-cheeked woman she had become thin, pale, and cachectic. Night sweats and a short cough made her friends fear that phthisis was developing, and she spent the winter of 1886 at Bournemouth, without receiving any material benefit, as the discharge from the rectum was as free as before. Her menstrual periods, normal and painless before her inflammatory attack, had since been preceded for several days and accompanied by pain on the left side, often of an agonising character. During 1886 difficulty in defecation came on, so that aperients were regularly required, the motions being flattened and not larger than the little finger. On vaginal examination a tumour could be felt on the left of the uterus, the size of a large orange, which was firmly fixed to the uterus and to the contiguous parts. Bimanually it could be felt above the pubes but did not form a tumour evident to the eye. The right appendages felt perfectly normal. The uterine sound passed the normal distance.

On examination by the rectum, within reach of the tip of the index finger a stricture could be felt, which would only admit a small rectal ball the size of a large pea; above this stricture the abscess cavity evidently opened, but the opening could not be felt by the finger. As all forms of medical treatment had been fully tried before the patient consulted me, and as there seemed to be no chance of approaching the abscess from below, I advised that the abdomen should be opened and the abscess evacuated in that direction, as the opening into the rectum was situated in such a position that the sac of the abscess could never empty itself; and, moreover, the constant irritation threatened soon to produce

complete obstruction of the bowel by the contraction of the stricture.

The patient and her friends took a long time to consider before they would entertain the idea of operation; and it was only when they saw that matters were going from bad to worse that they consented. Mr. Pridgin Teale saw the patient with me in December, 1887, and agreed with the opinion I had given.

In January, 1888, the patient being under the influence of ether, an incision of three inches was made in the left linea semilunaris, across the course of the left deep epigastric artery, which was exposed, doubly ligatured, and divided. On opening the peritoneum, the small intestines were pushed upwards, exposing a hard mass intervening between the uterus and the left side of the pelvis, the tumour appearing to be continuous with both. Sponges were packed around so as to avoid soiling the peritoneum, and an aspirator needle was pushed into the centre of the swelling; when at the depth of an inch and a half it reached the cavity, from which was abstracted several ounces of extremely offensive pus. The parietal peritoneum was pressed down and sutured with catgut to the peritoneum around the opening in the tumour, the incision through the parts above and below the opening being closed by silk sutures. A large aspirator needle was left in the abscess to act as a drainage tube, salufer lotion (20 grains to the pint) being used to thoroughly cleanse the cavity. Sal alembroth gauze was packed round the opening, and over this was applied a dressing of salufer wool. The temperature never rose above normal, and after the first dressing no odour was observed from the abscess cavity, which was syringed out daily with the antiseptic lotion. The stitches were removed on the eighth day. On the seventh day a larger drainage tube was inserted into the abscess cavity, the capacity of which had contracted from 4 ounces to 1 ounce in the seven days.

FIG. 1.—Abscess discharging into rectum and producing a stricture of the bowel. The long arrow shows the site of the opening for drainage.

Although on syringing the fluid returned clear, a cellular drainage tube the size of a No. 12 catheter was retained until the fourth week, when the cavity would not hold more than 2 drachms of fluid, which returned as clear as it went in. The tube was then left out, and the wound healed forthwith. No faeces ever came through the drainage opening, and after the first dressing no flatus passed through it. The patient was up on the fourteenth day, and during her stay in bed had gained flesh and colour. Menstruation occurred normally on the nineteenth day, and absolutely without pain. From the time of operation no pus was ever seen on a motion.

In June, 1888, Mrs. A. reported herself as being in absolutely perfect health. Menstruation was normal and painless, her bowels were opened regularly and without the aid of aperients,

the motions being of full size and free from pus or blood. On examination a full sized rectal bougie passed without hindrance, and no remnant of the tumour could be felt on the left of the uterus, which seemed to be normal in size, position, and mobility. The patient had gained two stone in weight, and looked the picture of health.

CASE II.—Pelvic Abscess Discharging into Ureter: Catheterisation of Ureter: Exploratory Nephrectomy: Subsequent Laparotomy and Evacuation of Abscess: Recovery.—Mrs. T., aged 34, was admitted to the Leeds General Infirmary on June 18th, 1886, with the history of having, during the previous nine months, suffered from the passage of a large quantity of pus with the urine, with severe pain on the right side of the lower part of the abdomen, extending along the course of the right genito-crural nerve. She had been ill for some time previously, and had suffered from a severe leucorrhoeal discharge. Although her menstrual periods had been quite regular as regards time, they had been excessive, and had been preceded by pain for several days. Micturition had not been frequent, but had been somewhat painful during the act.

On admission, the urine which was passed with pain about six times during the twenty-four hours had a specific gravity of 1024, was alkaline, very offensive, and contained about a fourth part of greenish pus, with a few granular casts. There was slight tenderness in the right loin, and on vaginal examination a tumour the size of a large orange was felt on the right of the uterus. On sounding the bladder nothing abnormal could be discovered.

On June 24th the urethra was dilated and the ureters catheterised, when clear urine was drawn from the left, and purulent, offensive urine from the right. It was therefore thought that the pus was proceeding from the pelvis of the right kidney, and after washing out the bladder with a 1 in 10,000 perchloride of mercury solution, nephrotomy was performed; but the exploration showed the kidney to be healthy. The wound was therefore closed, and union occurred by first intention.

As the source of the pus was manifestly not from the kidney, it became evident that the tumour felt on the right side of the uterus was a pelvic abscess discharging into, or by the side of, the right ureter. This was fully explained to the patient, who, after an interval of six weeks, during which time the pus rather increased than diminished in quantity, consented to a further operation, and the abdomen was opened in the linea alba, for the purpose of either removing the disease or draining the abscess. It was found, however, impracticable either to bring the wall of the abscess forward, or to safely incise it, for the intestines were firmly matted over the whole roof of the pelvis. Aspiration was, therefore, performed, the abscess sac washed out with boracic lotion, and the abdomen closed. The patient made a steady recovery, and from that time forward began to pass less and less pus with the urine. She returned to her home in America, and six months afterwards wrote to say that she was strong and well, and was doing her household work.

CASE III. Pelvic Abscess discharging per Rectum for Six Years: Pulmonary and Abdominal Phthisis: Subperitoneal Laparotomy and Evacuation of Pus and Caseous Material: Relief.—Several years ago I was asked to see Miss A., aged 21, on account of pelvic trouble, and was told that she had been more or less an invalid since the age of 15, when she began to menstruate. On the second occurrence of menstruation, she caught a chill after a warm bath, which caused suppression of the menses, this being followed by some so-called inflammation of the bowels.

An abscess formed and burst into the rectum in about three weeks. She very tardily regained her strength, and three months after the first attack she had another return of the inflammation, followed by the bursting of a second abscess. Menstruation did not recur for six months. The inflammatory attack was repeated at the end of a year, and between that time and my seeing her she had had no other attacks.

When I saw her she was very much attenuated, and had a hectic flush on her cheeks. There was a slight cough, and some question of commencing tuberculosis in the right lung. Her chief complaint, however, was in the pelvis, and on examination *per vaginam* the uterus was found to be firmly and immovably fixed in the centre of a hard mass, which reached about two inches above the pubes; there was great tenderness on the left side, but no fluctuation could be felt through the roof of the vagina. *Per rectum*, the induration was found to extend quite round the bowel, so that, two inches from the anus, the finger passed through an indurated stricture. There was considerable difficulty in defæca-

tion, and the motions were at times coated with thick offensive pus. Pain and frequency of micturition were complained of.

As there seemed to be some doughiness deeply above the left Poupart's ligament, I decided to try to find and evacuate the abscess in that direction; and, having made an incision as if for ligature of the external iliac, I raised the peritoneum without opening it, and passed my finger down the inner side of the pelvis, soon reaching an extensive collection of caseous material with a little pus. This I carefully scooped away with a Volkmann's spoon, then thoroughly irrigated the cavity with a mild antiseptic lotion, and inserted a large drainage tube. Decided relief to the symptoms was given; the pain was lessened, and the hectic diminished; but although the local symptoms were so much benefited the chest did not improve, and the patient in three months died of phthisis. Had this radical treatment been followed out before the advent of tuberculosis, I have no doubt that cure instead of relief would have ensued.

CASE IV.—Pelvic Abscess; Tubercular Peritonitis; Laparotomy: Evacuation and Drainage of Abscess: Relief.—J. G., aged 24, was admitted to the infirmary on February 1st, 1888, on account of a pelvic and abdominal tumour, accompanied by peritonitis. The family history was good, and there had been no previous illness. Menstruation commenced when the patient was 16 years old, and had always been regular. She had been married twelve months but had not been pregnant. Six months prior to her admission she was seized with a sudden and violent pain in the lower part of her body, but she did not faint. From that time onwards the pain had continued, being worse at her periods. There had been great frequency of micturition, with considerable pain, although the urine on admission was found to be healthy. There had been pain on defecation, with straining, but neither pus nor blood had been noticed on the motions. During the whole of the time the patient had been getting much weaker and thinner, and for some weeks she had been completely bedridden.

Examination *per vaginam* revealed great induration at the roof and fixation of the uterus in an apparently solid mass, which extended above the brim of the pelvis. No fluctuation could be perceived at any point. The urethra and base of the bladder seemed to be completely fixed in the mass, as did also the rectum. As the patient was manifestly running down, abdominal section was performed on February 4th by an incision of two inches between the umbilicus and pubes, when the omentum was found completely adherent to the abdominal wall and to the roof of the pelvis. On breaking down the adhesions of the omentum to the pubes, a large quantity of foetid pus escaped. Sponges were packed into the upper part of the incision to prevent the general peritoneal cavity being soiled. The abscess cavity extended deeply behind the uterus, between it and the rectum, the walls being formed by the small intestine above and the large intestine below. A Keith's drainage tube was introduced to the bottom of the cavity, which was well irrigated with a hot solution of salutar (10 grains to the pint), ten or twelve pints being used, the irrigation being continued until the fluid returned clear; the upper part of the wound was closed, leaving the drainage at the lower end. Although the temperature had been high (between 100° and 103°) for a fortnight, it became quite normal the same evening and remained so for a week, after which it was a little irregular, the irregularity apparently depending on the freedom or otherwise of the drainage. The wound was dressed every day at first, and then less frequently, as the amount of pus at each dressing became less. At the time of operation there were some nodules on the peritoneum suspicious of tubercle. The patient was up at the month's end, and returned to her home at her own request on March 31st, there being still a rubber drainage tube in the wound.

I have reason to think that, although relieved of her pelvic trouble, she never fully regained her strength, and ultimately died of phthisis.

CASE V.—Pelvic Abscess: Tubercular Peritonitis: Exploratory Laparotomy: Extensive Adhesions over Abscess Sac: Subsequent Aspiration per Vaginam: Relief.—A. S., aged 31, married, was admitted into the Infirmary in April, 1884, suffering from pelvic pain and frequency of micturition. She had been a bedridden invalid for some months, during which time she had lost weight very considerably, and had suffered from night sweats and evening pyrexia. Abdominal examination revealed fixation of the uterus, with an indurated swelling to the left, apparently adherent to all the parts in its neighbourhood.

On May 21st the abdomen was opened by an incision in the

linea alba, below the umbilicus, when the peritoneum was found to be studded with miliary tubercle; and the intestines, also tuberculous, were firmly fixed over the roof of the pelvis; hence the abdomen was closed. Union occurred by first intention, and twelve days afterwards, aspiration of the abscess was performed through the roof of the vagina. Although no fluctuation could be felt, three ounces of foetid pus were withdrawn, and a short time afterwards the patient returned home much improved in health, and after a few weeks was able to resume her household duties.

CASE VI.—Pelvic Abscess: Laparotomy, Evacuation and Drainage: Cure.—Mrs. M., aged 30, called to see me on March 9th, 1889, on account of pelvic distress, debility, and loss of flesh and strength. She said that she had had three children, the last fifteen months ago, since which time she had never been very strong, but this she attributed to suckling.

Menstruation commenced three months after her last confinement, and she had been quite regular up to twelve weeks before seeing me, when she caught cold during a "period," and had what her doctor called inflammation of the bladder, which made her feverish and seriously ill for five weeks; the "period" did not cease abruptly, but was followed by a shreddy, sanguineous, and then by a leucorrhoeal discharge.

During the twelve weeks before seeing me she had had severe pain in the left ovarian region, pain down the left thigh, frequent and painful micturition, evening chills and fever, tendency to diarrhoea after food, great debility, and marked loss of flesh.

On examination I found the os uteri fissured on the left, the cervix brawny and hard, the uterus firmly fixed to a hard mass which extended to the left side of the pelvis, and to 1½ inch above the brim; the latter extension could only be felt bimanually, and could not be seen by inspecting the abdomen. No fluctuation could be felt. The bladder and rectum seemed both involved in the mass. I advised her to go into the infirmary for operation.

On admission a week after a doubtful sense of fluctuation could be felt deeply in the left ovarian region. Her general condition

FIG. 2.—Abscess discharging into bladder at site of "short arrow." Long arrow shows the site of the opening made for drainage.

was much worse, and her temperature fluctuated between 100° and 102°.

March 20th. Laparotomy was performed by an incision of an inch and a half in the median line below the umbilicus. The tumour could be felt on the left of the uterus, the omentum firmly adherent over it. Sponges were packed around the opening, and on exploring with an aspirator needle six ounces of offensive pus were withdrawn. In order to get at the tumour a hole was made through the adherent omentum; the parietal peritoneum was then tucked down and sutured with chromicised catgut to the

visceral peritoneum covering the tumour, which was then opened and drained by a glass tube. Three deep silk sutures closed the remainder of the incision.

From the time of operation the temperature became and remained normal, the pain ceased, the appetite returned, and with it the cachexia disappeared and flesh was gained. The stitches were removed on the seventh day, and the tube on the ninth. From the time of operation to the healing of the wound not a drop of pus was seen. On examination *per vaginam* at the end of a fortnight the uterus was much less fixed, and the oedema of the cervix had disappeared.

She was allowed to get up at the end of three weeks, and was discharged cured within a month of the operation.

REMARKS.—The cases I have related were all serious, as these cases usually are, and without active treatment I believe they would all have died, either immediately or remotely, as the result of the pelvic disease; whereas, under the operative treatment here recommended, relief was given in all, and complete and lasting cure was effected for several of the patients. The first, second, and sixth cases are the most remarkable as they are the most satisfactory, in that there was an absence of tubercle or other diathetic condition which could retard convalescence. They show also that, although the abscess be never so foul, and though it have been in communication with the bowel or bladder for long periods, it is, with due precautions, quite safe to evacuate it through the peritoneum.

The circumstance that particularly astonished me in Cases I and VI was that, after the evacuation of such foul abscesses and the cleansing of the cavity by syringing with an antiseptic, there should never be even a suspicion of odour or of pus in the subsequent dressings. Case I also shows that there need be little fear of a fecal fistula in opening such an abscess, for the opening into the bowel is probably usually a small sinuous track, otherwise the cavity would be likely to contract and become cured spontaneously and not to persist for years. The complete disappearance of the stricture of the rectum in Case I is worthy of comment, for although I expected some amelioration, its complete cure certainly exceeded my expectations.

It is a difficult matter to lay down any general rules for the treatment of these cases, as each one must be treated on its merits, that is, according to its cause, its site, and its condition. The natural progress of a pelvic abscess is to find an outlet for the discharge of its contents, but as to the course it will select, our anatomical knowledge will seldom enable us to predict it with certainty until the process is well nigh complete. Hence, when we have once made the diagnosis of pus within the pelvis, our course should be, not to wait for Nature's uncertain method, but to evacuate it, and, unless fluctuation can be felt *per vaginam* when the abscess may perhaps be attacked in that direction, the plan of opening the abdomen, searching for, evacuating, and draining the cavity, will, if done *secundum artem*, probably be found to yield the best results.

Since writing the above paper I have successfully operated on four other cases. In one case the abscess was situated in the ovary, and intervened between a small fibroid of the uterus and the rectum; in another the origin of the pus could not be made out, but about 15 ounces were evacuated; in a third the pelvic abscess was lined by intestines, and the pus probably started from a perforated vermiform appendix; and in a fourth a suppurating dermoid cyst had burst into the bladder, through which it was discharging (Fig. 2), the patient at the time being almost at death's door from septic absorption. In the last case the opening into the bladder closed within the week, at the end of which time the temperature had become normal. In all these cases the abdomen was opened and the abscess drained above the pubes, with complete success.

THE well known journal of nervous diseases, the *Centralblatt für Nervenheilkunde und Psychiatrie*, founded and successfully conducted for many years by Dr. Albrecht Erlenmeyer, has now been enlarged in size and widened in scope. It is henceforth to have an "international" character, and Dr. Erlenmeyer will have the assistance of Professor Charcot, of Paris; Dr. van Deventer, of Amsterdam; Dr. W. W. Ireland, of Prestonpans; Professor Kowalewsky, of Charkow; Professor Lange, of Copenhagen; Professor Lombroso, of Turin; Professor Obersteiner, of Vienna; and Professor Seguin, of New York. The actual work of editing will be in the hands of Dr. Hans Kurella, of Allenberg. The publisher is W. Groos, of Coblenz and Leipzig.

UNIQUE CASE OF EXTRAUTERINE PREGNANCY.

By C. M. MACQUIBBAN, M.D.,
Aberdeen.

ON September 5th, 1888, I was called to attend Mrs. E. S., aged 43.

I found her in bed suffering, pain coming in paroxysms, countenance pale and anxious, pulse 96, temperature 100°, bowels constipated; difficulty of voiding urine; abdomen swollen, and more so on the right side; altered last in May; mother of twelve children; had two miscarriages previous to the birth of her last, aged 4 years; labours were natural. I found a swelling on the upper and back part of the vagina, below the os, soft and yielding to pressure. Os was far up; no dilatation nor discharge; no foetal sound; had vomiting, and attributed illness to a bilious attack; breasts natural. Ordered hot fomentations over abdomen, 20 drops of laudanum every four hours, also a dose of castor oil, and, if not better, to send for me. Being relieved she did not send until the 10th. She being in pain I ordered her laudanum as before.

September 13th. Free from pain.

September 17th. Suffering extreme pain of a tearing nature. Ordered 2 grains of opium every six hours.

September 19th. Still pained; has retention of urine; had to use catheter; found the swelling in the same place; bowels constipated. Ordered extra strong seidlitz powder, which operated freely.

September 20th. Swelling still the same; suffering excruciating pain; vomiting; pulse, 100; temperature 101°. Had the following: Tincture of hyoscyamus, $\frac{1}{2}$ ounce; spt. of chloroform, 2 drachms; mucilage, 4 ounces; water to 6 ounces. Sig. A tablespoonful every six hours.

September 21st. Easier, but as I was at a loss to know exactly her case asked her to go to hospital. She demurred. I then proposed consultation with Professor Ogston.

September 22nd. After consultation she was admitted into hospital same night, and operated upon the following day at noon by Dr. Ogston. I saw Mrs. S. the other day, well, doing her household work. The following are the notes by Dr. Riddell, then house-surgeon, Aberdeen Royal Infirmary:

On Saturday, September 22nd, Dr. Ogston was called by Dr. MacQuibban to see Mrs. S., who was supposed to be about four months pregnant, and who had for about three weeks been suffering great pain, with other symptoms, pointing to some uterine complication. Patient had previously been thirteen times pregnant, two of these pregnancies resulting in miscarriages.

On examination, a soft tumour was distinctly made out in Douglas's pouch, and from its character, along with the attendant symptoms, the case was diagnosed as one either of retrouterine hæmatocele, or extrauterine pregnancy. Accordingly, patient was brought to hospital that evening. Hot fomentations were applied to relieve the pain, and patient was ordered to be prepared for operation the following morning, unless the temperature reached 101° in the morning, it being determined to do a laparotomy to determine the exact condition.

23rd. Bowels opened by warm water and soap enema at 7 A.M.

Professor Ogston performed the operation on the morning after admission.

The abdomen having been opened with the usual strict antiseptic precautions, a thin-walled cyst presented itself well up to the umbilicus. This was aspirated with a Potain's aspirator, and, the fluid that came off being of urinous appearance, Dr. Ogston enlarged the puncture opening by a scalpel, and found that the apparent cyst was really an over-distended bladder. This was all the more remarkable, as urine had been drawn off during the night, and the catheter had been used by the ward sister immediately before the patient was placed on the operating table, two-and-a-half pints being then drawn off. The bladder wound was then stitched up with No. 3 catgut, and a soft catheter (No. 20 French) was, after the completion of the operation, tied into the bladder. This catheter was connected with a tube, which could be clamped when necessary by a Pean's forceps, and which led into a tall bottle containing carbolic oil, a continual stream of urine being thus drained off below an antiseptic layer of fluid, which thus always intervened between it and the air. The bladder wound having been sutured, Dr. Ogston next investigated the condition of the tumour,