Cases of ovariotomy / by Thomas Keith.

CASES

OF

OVARIOTOMY.

BY

THOMAS KEITH, F.R.C.S.E.

EDINBURGH: PRINTED BY OLIVER AND BOYD.

MDCCCLXVI.

REPRINTED FROM THE EDINBURGH MEDICAL JOURNAL FOR DECEMBER 1866.

CASES OF OVARIOTOMY.

In the following paper an account is given of the operations for ovarian tumour performed since the last series of cases reported in the December number of this Journal for 1865. The number of these is now ~~forty-eight~~, with the result of thirty-~~seven~~ recoveries and eleven deaths, or a mortality of twenty-three per cent. There has been no selection of favourable cases, and experience in the operation has diminished the mortality attending it, for

Of the first	.	16 cases,	.	6 died.
Of the second	.	16 „	.	3 „
Of the third	.	16 „	.	2 „
		48		11

There is also given a report in full of a case which proved to be one of chronic—apparently tubercular—peritonitis, in which, though the physical signs were entirely those of ascites, the history was so clearly that of an ovarian tumour that, misled by the circumstantial and unvarying statement of the patient, I made an exploratory incision, the only instance in which I have had occasion to do so.

Case XXXVI.—*Multilocular Tumour: once discharged by vagina: once tapped. Ovariotomy. Pulmonary Congestion. Recovery.*

R. S., aged twenty-three, had enjoyed good health till January 1864, when she felt pain in the left side. In March she applied to Dr Matthews Duncan, who detected an ovarian tumour, which by May filled the abdomen. One evening in July, while out walking, a thick glutinous fluid began to escape from the vagina. This continued to flow during the night and following day, leaving the abdomen quite flat. In a few weeks she had regained her former health, and for some months was able for service. In May 1865, having again increased in size, she was admitted into the Royal Infirmary under Dr Duncan, and in June nearly two gallons of thick green fluid were removed by tapping, leaving a semi-solid tumour as high as the umbilicus. The cyst was refilling when she left the hospital in the end of July. Soon after this she came under my care, Dr Duncan having asked me to undertake the surgical management of the case, which we looked upon as rather a hazardous one, from the extent of adhesion which was suspected, and from the bad general condition of the patient.

She had a peculiar unhealthy anæmic leaden colour, and was considerably emaciated. The tongue was large, red, and irritable,

and she had lost nearly all her teeth. She measured forty and a-half inches at the umbilicus, and nineteen inches from the ensiform cartilage to the pubes. The tumour was very prominent at the epigastrium; above the umbilicus there was a broad contraction in it, running across the abdomen; here adhesion was evident. Below the umbilicus there was coarse crepitus over a large extent. The left side of the vagina was depressed, and felt hard. The uterus was movable, and its fundus lay to the left, pushed downwards by the tumour.

Ovariotomy was performed on the 21st of November. Dr Matthews Duncan, Dr Gamgee, and other friends, were present. The incision extended from two inches above the umbilicus, to seven inches below it. The adhesions were extensive and firm; the omentum came in between the tumour and wall, and was partly adherent to both. As it was a good deal torn, and bled freely, I cut away a piece the size of the hand. The tumour was very vascular, and there was more blood lost than usual. The pedicle was about an inch and a-half in length; it arose from the right side of the uterus, and was secured by a clamp. Several vessels in the omentum and wall were ligatured, the ends being cut short. The pelvis was sponged from all blood, and the wound closed by eight deep silk sutures. There was nowhere any pelvic adhesion, and no evidence in what way the fluid had escaped the year before. The left ovary felt normal in size, but it was adherent, and could not be brought into view. The cyst walls and contents weighed thirty-three pounds.

The operation lasted an hour. She looked very pale on being put to bed; the pulse was 120. By evening she was in a profuse perspiration; she had no pain, but cough was troublesome, and the pulse had risen to 130. She passed a very restless night from cough and vomiting. Next morning the pulse was 140; the respirations 36. The skin was hot at some places, perspiring at others; the mouth was parched, and there was a troublesome suffocative cough, with some tracheal râle. The heart was oppressed, and its action tumultuous. No respiratory murmur could be heard, only an occasional sibilant râle. This state of matters continued all day, and sometimes she looked extremely ill. I thought of taking a little blood from the arm, but was deterred by the extreme feebleness of the pulse. A little brandy and soup were thrown up the bowel occasionally. Nothing was retained on the stomach, and as she always seemed relieved after vomiting, this was encouraged by drinks of tepid water. Every now and then the ribs were forcibly compressed by the hands, and she was made to cough up the phlegm which collected in the trachea. Towards evening she became more comfortable, and by midnight the heart and lungs were acting well, as also were the kidneys and skin.

After the second day she went on well. There was profuse expectoration, and severe cough for some days. The silk sutures were removed five days after the operation, and neither then nor subse-

quently did a single drop of matter come from the wound. I never saw more perfect primary union, and the circumstances were most unfavourable for it. She went home twenty-five days after operation, having been walking about the house for the previous week. When seen lately, she had the ruddy look of perfect health.

CASE XXXVII.—*Semi-solid Ovarian Tumour. Ovariotomy. Recovery.*

Miss D., aged twenty-three, came to me in August 1865, at the recommendation of Dr Campbell of Dunse. She was chloro-anæmic, and had a large goitre; and though she had often bad nights on account of pain, her general health had not been much affected. The tumour was of six months' growth, extending to midway between the umbilicus and ensiform cartilage. It was semi-solid, and unattached. Her girth was thirty-three and a-half inches. The uterus was drawn upwards to the left side, and its connexion with the tumour seemed pretty close. The diagnosis given was "unattached multilocular tumour of left ovary; pedicle probably short." No interference was recommended, for her general health was still good, and it was probable that as the tumour enlarged and grew upwards, the pedicle would become elongated.

After four months she returned for operation. The tumour now reached to the ensiform cartilage, the girth was thirty-six inches, and the distance from the ensiform cartilage to the pubes was eighteen inches. Her general health had become affected; she had slight cough, and the heart's action was feeble.

Ovariotomy was performed on the 5th of December. I cut into the tumour, and broke it up, and succeeded in removing a mass of cysts and semi-solid matter, weighing upwards of twenty pounds, through an incision just sufficient to admit the hand. The pedicle was short and thick. It was secured by a clamp, which was adjusted near the centre of the incision, but not without dragging considerably upon the uterus. The wound was closed by two deep sutures above the clamp, and one below it.

During the operation the chloroform sickness was excessive, and it continued at intervals, with unusual severity, and great straining, for the first thirty-six hours. Otherwise, she made a fair recovery, and returned home twenty-five days after operation.

CASE XXXVIII.—*Multilocular Ovarian Tumour. Both Ovaries removed. Recovery.*

Miss R., aged thirty-two, came to me from Glasgow, in November 1865. First signs of ill health came on a year before, when she found that her dresses would not fit her as formerly. During the preceding June she had constant abdominal pain, otherwise she had not suffered much. The emaciation was considerable; she measured thirty-eight inches at the umbilicus; there was pretty general crepitus over the tumour; the uterus was high and mov-

able. She had some cough; there was prolonged expiration, with fremitus over the right lung behind, but nowhere any dulness. Several years before there was a history of some acute chest attack, said to be bronchitis, but which was more probably pleurisy.

As her family history was not a good one, her father having died of rapid phthisis, I recommended the removal of the tumour as long as her health was fairly good. She went home to advise with her friends, and returned to me for operation. Ovariotomy was performed on the 19th of December, Dr Matthews Duncan, Dr Williamson of Burntisland, Dr Gamgee, and other friends, were present. The incision commenced an inch below the umbilicus, and extended downwards six inches. There was no difficulty, and the pedicle was secured by a clamp between two and three inches from the left side of the uterus. The right ovary was as large as a pigeon's egg; it contained three cysts. These were first punctured; but the organ seemed so thoroughly diseased that it would have been unwise to have left it behind, though its removal complicated and prolonged the operation, as from the shortness of its pedicle, it was not easy to bring it into view. Its pedicle was transfixed with a double silk ligature, and then with the ligatures cut away. One of the ligatures did not hold, and free bleeding went on. Two large vessels were secured, but there was so much oozing that I had again to transfix and tie close to the uterus. After sponging the pelvis and tying three bleeding vessels in the wall, the wound was closed by deep and superficial silk sutures. The weight of the cyst walls and contents was nineteen pounds.

There were no unfavourable symptoms. Uterine hæmorrhage came on two days after operation, and lasted two days. Towards the end of the second week there was fulness of Douglas' space, but it disappeared. She had little appetite, and lost flesh during her convalescence, but she returned to Glasgow in four weeks after the removal of the tumour. Soon after, she had a pelvic abscess, which discharged by the rectum. This retarded her recovery, and when I saw her three weeks ago, there was still some pelvic cellular induration, and she was unable to walk far.

CASE XXXIX.—*Very adherent Cyst. Once Tapped. Ovariotomy. Recovery.*

R. M., aged nineteen, a fair-complexioned, healthy-looking girl, but much emaciated, was sent to me, in January 1866, by Dr Matthews Duncan, on account of a large ovarian tumour of very rapid growth. In May 1865, she first observed some swelling, which increased so quickly that tapping was necessary towards the end of September. Within a fortnight after the tapping it was observed that the cyst had commenced to fill. She measured forty-five inches at the umbilicus, and twenty-two inches between the ensiform cartilage and pubes. The ribs were pushed outwards, and the dulness of the tumour extended nearly three inches under the sternum. The cyst was so tense that no diagnosis could be

formed as to the presence or absence of adhesion, but the uterus was movable and the pelvis free.

The tumour was removed on the 13th of January. Dr Matthews Duncan and part of his clinical class were present. The incision extended from one inch below the umbilicus downwards eight inches. The cyst was the thinnest I have had to do with, and was most firmly and extensively adherent. The adhesion was most intimate in the right lumbar and iliac regions. It was sometimes not easy to distinguish between the cyst wall and peritoneum, and this was so torn in many places that I cut away several ragged pieces of it. After much injury had been inflicted on the peritoneum the tumour was withdrawn. It was nearly unilocular. The pedicle was long and thick, and was secured by a clamp. The right ovary was much congested, being twice the natural size; but there were no cysts in it. The wound was closed by silk sutures, and the double ends of eleven ligatures were left hanging out at different parts of the wound, for the bleeding from the torn adhesions had been free. The cyst walls and fluid collected weighed forty pounds, but several pints were lost.

The operation was tedious, and lasted an hour and a quarter. She was pale and cold on being put to bed. Healthy reaction soon came on. By evening the pulse was 140, but perspiration was free, and there was plenty of urine. Vomiting was very severe for the first two days. There was much distention, and for the first week she suffered much from the severity of the windy pains, and there was a tendency to diarrhœa. During the second week this tendency to mucous diarrhœa continued, requiring free opiates. The tongue was dry and red, and the pulse ranged from 100 to 115. The wound had remained quite dry. In the third week there was still some diarrhœa; on the seventeenth day the wound opened at the upper angle, and discharged about three ounces of healthy pus. The fourth week was one of steady improvement, and she went home to near Stirling forty-two days after operation. She has since enjoyed excellent health.

Case XL.—*Multilocular Ovarian Tumour. Adhesions to Uterus and Bladder. Ovariotomy. Recovery.*

E. M., aged thirty-two, was sent to me, in January 1866, by Dr Stewart of Kirkintilloch. I had seen this patient some months before, along with Dr Stewart and Dr Wilson of Glasgow, and we looked upon the case as a favourable one for ovariotomy. The tumour had been detected twelve years ago, and had given little annoyance till within the last few years, when she became very uncomfortable and breathless for ten days before the period came on. This uneasiness continued till the period had passed off, when she had an interval of comparative comfort for a fortnight. Her mother had died of phthisis; but her general appearance was healthy, and the emaciation was moderate. The abdomen was soft, and measured

forty-five inches at the umbilicus, and twenty-four inches between the ensiform cartilage and pubes. The uterus lay very low and far back in the pelvis. It felt heavy, but was movable.

Ovariotomy was performed on the 30th of January. Dr Matthews Duncan and other friends were present. The pulse fell to 20 during the inhalation of chloroform. After separating some parietal adhesion, it was seen that the bladder was drawn up upon the cyst, closely adherent to it. After freeing this, it was found that this adhesion was continued on to the anterior surface and right side of the uterus. The left ovary was also adherent to the tumour, and the pedicle was generally adherent in the pelvis. These adhesions were firm, and several vessels required ligature, the ends being brought out alongside the clamp. The pelvis was sponged, and the wound closed as usual by silk sutures. The large cyst, which was very thin walled, contained forty-one pounds of fluid, and the mass of secondary cysts that occupied the pelvis weighed two pounds.

There was some vomiting and distention for the first three days; otherwise, she made a rapid recovery, and was able to walk about a little on the sixteenth day after operation.

CASE XLI.—*Multilocular Ovarian Tumour. Ovariotomy. Recovery.*

In February 1866, Dr Graham Weir took me to see a married lady, aged fifty-five, who had suffered from ovarian disease for upwards of three years. When she came under Dr Weir's care, a year before, she had just returned from the West Indies, after a long residence there. She was then in a very feeble state of health, very much emaciated, and suffering so much from the pressure of the tumour that Dr Weir was obliged almost at once to relieve her by tapping. She recovered well, went to her native place in the north of Scotland, and after a year's good health returned to town, Dr Weir having advised ovariotomy as soon as she had nearly regained her former size. The journey from Golspie was well borne, and some abdominal pain and tenderness, with crepitus over the tumour, disappeared after a few days' rest in bed.

The general condition was not a very good one for ovariotomy. She was pale, and since the tapping had taken on much fat. The pulse was 90, and small, the heart's action feeble, the tongue large and soft. She measured forty-four inches, but from the amount of fat and tenseness of the cyst it was impossible to tell whether adhesion existed or not. At the tapping, however, the tumour seemed to be unattached. The uterus was drawn upwards. It was heavy and barely movable, the impression left being that the pedicle was short.

Ovariotomy was performed on the 14th of February. Dr Begbie and Dr Weir were present. It snowed heavily during the time the operation lasted, and the light was very bad. The heart got feeble as she came under the influence of chloroform, and would not allow of the anæsthesia being pushed far. The abdominal wall was

thick, and there was much fat over the peritoneum. The large cyst was emptied, and, along with some secondary cysts that occupied the pelvis, drawn out, after freeing it from some recent parietal adhesion, from a loop of intestine above the umbilicus, and from some older and firmer adhesions towards the right side. The pedicle was about an inch and a-half in length. It was retained outside with some pull upon the uterus, a double ligature having been first applied, in case it should be necessary to remove the clamp and allow the pedicle to subside into the abdomen. The intestines were distended and red, and filled up the pelvis so much that I did not get the cavity sponged so carefully as usual. After tying two or three bleeding vessels the wound was closed by deep and superficial silk sutures.

She looked very ill on being placed in bed; the heart's action was feeble and the breathing quick. Several opiate enemas were necessary in the afternoon to relieve pain and quiet restlessness. For the first three days there was severe vomiting and considerable distention, and the first dressings were soaked with red, somewhat fetid, serum. There was no perspiration, and the urine was scanty; but the pulse did not rise above 112. She gave us all not a little anxiety till the fourth day. After that she recovered well, and when taken down stairs by the end of the third week the wound was firmly cicatrized. She has since returned to the West Indies.

CASE XLII.—*Case of Tubercular Peritonitis. Exploratory Incision. Recovery.*

Mrs Main, from Glasgow, aged thirty-two, was sent to me in the spring of 1866, as a fit subject for ovariotomy. First signs of ill health came on four years ago, when, the catamenia being present, she took severe pain in the left iliac region. There was sudden suppression of the menses, and she was confined to bed for four weeks. Two or three months after she began to go about again she felt a tumour above the pubes about the size of two hands, which she could move about from one side to the other. She gradually increased in size, and underwent much treatment, by blisters, mercury, and various diuretics and purgatives, without getting any relief. For the last two years her general health has been fairly good. Latterly she has lost flesh, and has suffered more from distention and the weight of the tumour, but does not think she has increased in size for some time past.

She was unwell when I saw her, and the first examination was hurried. She measured forty-four inches. The abdomen was full and well arched, and the flanks were not more bulged than they usually are in cases of large ovarian tumours. It was observed that there was clear sound on percussion midway between the umbilicus and ensiform cartilage, but this was supposed to be due to a piece of adherent intestine, as there was a protrusion on coughing about the size of an egg just above the umbilicus. The right

loin was clear, the left dull; besides, the history was so clearly that of an ovarian tumour that no doubt as to the nature of the case was then entertained. A number of friends were present, and there and then a day was fixed for operation.

More careful examination in a day or two distinctly showed that the fluid was free in the peritoneal cavity. Up to four inches above the umbilicus the sound on percussion was always dull, and what at first appeared a hernial protrusion was only fluid forced under the skin on coughing through some weak point in the wall. The uterus was movable, and the roof of the vagina felt high and tense. Still the patient's statement was so circumstantial as to the presence of a lump, the size of her two hands, in the abdomen at the beginning of her illness, that though no solid tumour could be felt it seemed most likely that one did exist concealed by the ascitic fluid. Dr Matthews Duncan, and Dr Haldane, who now saw her, concurred in this opinion, and the diagnosis written down was, "Case of ascites, with *probably* an ovarian tumour." The doubt now entertained was explained to the patient, and it was agreed, with her consent, to make a small incision, tap, and remove any tumour if present.

On the 6th of March I made an incision an inch and a-half in length, and exposed the peritoneum, which was of a deep leaden colour. Three and a-half gallons of clear yellow serum were withdrawn, and the edge of the peritoneum was seen to be studded with small granular transparent bodies. As I was about to introduce a stitch to close the puncture, an irregular looking mass, near the ribs, on the left side, caught my eye, and thinking that, after all, I had to do with a thin-walled adherent cyst, I separated the peritoneum for several inches round, enlarging the wound to about three inches; then finding I was separating the peritoneum, and not a cyst wall, I enlarged the puncture made by the trocar, and saw that the whole peritoneum was studded with transparent, hard, glassy-looking bodies from the size of a pin head to that of a pea. The mesentery and intestines were in some places bound together; the uterus and ovaries quite healthy, except that their peritoneal covering partook of the general peritoneal disease. After sponging up as much fluid as possible, the wound was closed by three silk sutures, and ten days afterwards the patient left her lodgings, not the slightest bad symptom having followed this little operation. I have unfortunately lost sight of her, and do not know her address, but I have given her name in case she should at any future time come under the care of any of my Glasgow friends.

Case XLIII.—*Multilocular Ovarian Tumour. Four times Tapped. Ovariotomy. Death two days after.*

C. R., aged twenty-five, was sent to me in March 1866 by Dr Sanders. The tumour had been detected three years ago, and within the last nine months she had been tapped four times. Her girth was forty-two and a-half inches, and the length from the ensi-

form cartilage to pubes, twenty inches. The uterus was drawn nearly out of the pelvis to the left; it was slightly movable. The abdominal wall was thick, and the cyst was too tense for accurate diagnosis.

She was a stout healthy-looking woman. The lips were somewhat anæmic; she had habitually cold feet; the pulse was weak, and the heart's action unusually feeble. The skin was remarkably dry and scaly, and the hands felt like horn. Altogether, she looked a stronger woman than any one I had operated on for ovarian disease, and the prognosis given was very favourable; for my previous twelve cases had recovered, and her chances seemed better than any of them. It was evident that ovariotomy was now her only resource, as the intervals between the tappings were becoming each time shorter.

Ovariotomy was performed on the 22d of March. Dr Duncan, Dr Sanders, and part of his clinical class, were present. There were extensive and unusually firm parietal and omental adhesions, chiefly above the umbilicus, and the bleeding from these was very free. After breaking down some secondary cysts the operation was finished in the usual way. There was a good deal of red serum in the abdomen and pelvis. On account of the very dry state of the patient's skin I was more than usually careful to sponge this all away. I am now satisfied that the sponges were used too freely. The cyst wall and contents weighed thirty-four pounds.

In the course of the afternoon she required two opiate enemas. By evening she was quiet, though flatulence was rather troublesome. The skin was hot and dry; the pulse was 115. There had been no perspiration, but the urine was abundant. There was no vomiting. She had a pretty fair night. In the morning the pulse was 90; skin very dry and hot; urine copious. There was no distention. She felt tired, but her expression was good. When seen in the afternoon she was quiet, and seemed to be doing well. Twenty-eight hours after operation she suddenly became very restless and flushed; the pulse rose almost at a bound to 130; the breathing was shallow; and the first cardiac sound was almost gone. She had a quiet night, but by morning the pulse was imperceptible, and she died forty-eight hours after operation, being quite sensible to the moment of death, and looking as if in perfect health.

The wound was well united; the sutures on the peritoneal surface not visible. The small intestines were generally adherent by healthy lymph, and there was about half-a-pint of serum in the pelvis. There was not a particle of blood clot anywhere. Unfortunately the heart was not examined. That the cause of death was due to a fibrinous coagulum in the right side of the heart I have little doubt.

Case XLIV.—*Multilocular Ovarian Tumour. Once Tapped. Adhesion to Uterus. Ovariotomy. Recovery.*

In April 1865, I met Dr Sidey to consider the question of ovariotomy in one of his patients, fifty-seven years of age. The

disease had existed three years, and she had for some time been suffering from the increasing distention of the abdomen, which measured forty-seven inches in circumference. She was thin and sallow, but healthy looking. The uterus was drawn out of the pelvis, and felt so incorporated with the cyst that we considered it safer to recommend that she should in the meantime be relieved by tapping, and four gallons of fluid were removed from nearly an unilocular cyst. There was an unusual amount of flatulence and distention for nearly a week, but the patient thought little of it, as she had suffered in a similar manner after all her confinements. In a few days I was able to verify the opinion given before the tapping as to the adhesion that existed between the cyst and uterus.

By April 1866, the cyst had refilled, she had become much emaciated, and was anxious to be relieved of her burden. Ovariotomy was performed on the 11th of April. Dr Sköldberg of Stockholm was present. The diagnosis written down was "Cyst free above, but very closely connected with the uterus and upper part of vagina to the left side of uterus." For this case I had provided myself some time before with Koeberle's serre-nœud, kindly sent me by M. Elser of Strasbourg. It is a sort of ecraseur, four inches long. The cyst was exposed by an incision three inches in length, tapped, and drawn out. It was nearly unilocular. The connexion between the uterus and tumour was exactly as was anticipated, and it was impossible to separate them, for the posterior surface of the uterus formed part of the cyst wall. The serre-nœud was applied as close to the uterus as possible, and the loop of wire rope when tightened was an inch and a-half in diameter. The cyst, the base of which was almost cartilaginous, was then cut away as near to the wire as was considered safe, and the large mass of strangulated tissue was secured outside by passing through it two strong needles four inches in length. The whole was then freely touched with the perchloride of iron, and greased lint placed round it, to prevent any contact between the fleshy cut surface and strangulated portion, which was so large as to fill up the wound, rendering sutures unnecessary. The operation was completed in a few minutes.

In the course of the afternoon three opiate enemas were necessary to allay an unusual amount of pain and restlessness. By evening she was quiet, there was free perspiration and plenty of urine, but flatulence was troublesome. The wire of the serre-nœud was tightened from time to time as there was an occasional oozing. The dressings were soaked in yellow serum.

First day after operation.—Had a good night, but abdomen is much disturbed by flatus. Slough of pedicle nearly hard; it measures fully two inches in diameter, and from the distended condition of the intestines is already much depressed. It was again touched with the perchloride of iron and covered with blotting-paper to absorb any discharge. Some relief was obtained after passing the rectum tube. When seen in the afternoon, she was doing well,

pulse 84. The large slough was hard and dry, but there was much strain on the needles which kept it outside. I was sent for in the evening about seven, and found that, during a sudden attack of vomiting, the slough of the cyst, along with the serre-nœud, needles, and greased lint, had passed into the abdomen. Some folds of bright red intestine were lying in the wound, and scattered about were fragments of the large glass heads of the needles. The heads of the needles were just visible and I pulled them out, but it did not occur to me, in the confusion of the moment, that such strong needles could have given way. A severe attack of vomiting now came on, and while it lasted the intestines were prevented from protruding by the pressure of the hand. When the sickness passed off, nothing was to be seen but the head of the serre-nœud. A transverse piece of wood prevented it from slipping in. The intestines were pushed back and the wound stuffed with lint. This was allowed to remain undisturbed till next morning, in the feeble hope that sufficient lymph would be thrown out to so far encyst the slough, which at the time was so hardened by the perchloride of iron as to be almost imputrescible. The vomiting continued during the evening. She was restless and anxious, complaining of severe abdominal pain ; pulse 100.

Second day.—Quiet night after two opiate enemas. Lint soaked in red serum. Intestine coated with grey lymph. A piece of fresh sponge soaked in a strong solution of sulphite of soda was stuffed into the wound and frequently changed. The pulse continued all day at 120. Only one fit of vomiting. The abdomen is greatly distended, but flatus passes downwards sometimes with, sometimes without the assistance of the rectum tube.

Third day.—Had a restless night from frequent vomiting. Two opiate enemas procured some disturbed sleep towards morning. Is feeble and drowsy ; pulse 130. Dressings soaked in fetid serum. The intestine is very closely adherent round the serre-nœud, and is marked by the wires of the instrument. The adhesion was gently separated, and three drainage tubes pushed down to the slough. Towards mid-day the pulse had risen to 140. Dr Sidey saw her in the afternoon and made the pulse 160, but it was so feeble and intermittent that it was difficult to count it. She looked extremely ill all evening, and was covered with a cold clammy perspiration, or rather transpiration. The stomach was irritable and would retain nothing, but strong soup enemas with brandy were given every two hours. The dressings were frequently changed, the wound kept very open and well syringed with Condy's fluid. About three inches of intestine is visible almost on a level with the skin.

Fourth day. — A very restless night followed by an equally restless day. Frequent attacks of dark-brown vomiting. The day was passed much as yesterday, the pulse ranging between 120 and 140. Soup enemata with brandy, and frequent cleansing of the wound every few hours.

Fifth day.—Bad night with severe vomiting, is jaundiced, and there is occasional delirium. The finger was passed down to the slough, about four inches, and adhesions very freely broken up. Condy's fluid injected till it comes away clear, then a bunch of drainage tubes passed down. Abdomen softer; flatus passing freely downwards; pulse 120. Was moved to a water bed.

Sixth day.—Restless night, tumbling and tossing about, and it is difficult to keep her in bed; frequent diarrhœa. The skin is dry and shrivelled and very yellow. Frequent attacks of vomiting towards afternoon of matter like chopped grass. Abdomen softer; pulse 116 to 120. Retains nothing but brandy. Wound kept as open as possible. There is no fulness of Douglas' space. The intestine has become much fretted. It is covered with granulations which bleed at every dressing.

Seventh day.—Bad night. Diarrhœa troublesome. Tongue dry and red; pulse 100 to 110. Discharge profuse and horribly offensive, pieces of black putrid matter coming away during each syringing. On putting down the finger, I felt and removed a piece of needle fully an inch and a-half in length. It was sticking firmly in the slough, but the free end projected upwards of an inch.

Eighth day.—Quiet night. Looks and feels better; pulse 104. Felt for the other piece of needle and removed it. Slough and serre-nœud still firm. Discharge very free and intensely putrid.

Tenth day.—Serre-nœud came away. Removed large pieces of slough with forceps. Abdomen now flat, finger passes downwards behind the uterus; a bunch of drainage tubes kept in, and Condy's fluid injected as before. The patient is always relieved after the dressings, and her restlessness for a time disappears. About a pint and a-half is generally thrown in. No particular temperature or strength of Condy's fluid is employed. Sometimes the water is warm, sometimes nearly cold. The patient never complains; indeed, the small intestine seems to be entirely devoid of sensation.

After this the recovery was uninterrupted. On the *twenty-seventh* day she was out of bed for the first time, the wound then admitting only a single drainage tube, which passed downwards five inches. On the *forty-second* day she went home a distance of six miles. The drainage tube fell out a fortnight afterwards, and was not replaced; the discharge soon ceased and she got into excellent health. At one time the recovery of this patient seemed almost hopeless, and had it not been for the faithful nursing she received, I do not think she would have got well.

CASE XLV.—*Semi-solid Ovarian Tumour, weighing 55 lbs. Spontaneous Rupture. Ovariotomy. Death eight days after of Septicæmia.*

On the 12th of April 1866, I saw a married lady forty-two years of age, with a very large ovarian tumour. She had just made the overland journey from India, and had been travelling for two months, having left Lahore on the 2d of February last. She had

four children, the youngest five years of age. Scarcely eleven months had elapsed since her attention was first directed to the presence of a small tumour. It increased with great rapidity, and though doubts were entertained as to its real nature, the case was generally looked upon as one of pregnancy, and her leaving India for home was thus put off from time to time. It need hardly be added, that such a journey in such a condition was a great trial to her strength, but she was a woman of great resolution, and the fatigues of it were cheerfully borne.

She was much emaciated, and extremely anæmic. The pulse was 115, small and feeble. The lungs were compressed, and the heart pushed upwards towards the axilla. The ribs and ensiform cartilage were turned far outwards. There was œdema of the lower extremities, of the lumbar regions, and of the abdominal wall as high as the ensiform cartilage. The measurement at the umbilicus was fifty-three inches, and between the ensiform cartilage and pubes, thirty-one inches. She had entered on the last stage of ovarian disease.

After some days' quiet in bed, there was little change in her general condition. The pulse ranged between 112 and 120. She took her food well, and her nights were good. The tumour was very tense, and consisted of a semi-solid portion below the umbilicus, and of a large cyst above it; but such was the œdema of the abdominal wall, that it was impossible to form any diagnosis as to whether adhesions existed or not. The cervix uteri was almost beyond reach of the finger. The sound passed four inches, giving no information, however, as to the mobility of the uterus; and its introduction brought on an attack of pain, which lasted for several hours. There was a peculiar fulness and softness of the vagina, which was ascribed to serous infiltration of the pelvic cellular tissue. There was also a remarkably undefined state of the tumour in the right side, such as I never felt before, but which I would have no difficulty in recognising again.

There could be no doubt that this condition was the most unfavourable possible for ovariotomy. I had every hope, however, that after one tapping her general health would improve, and that ovariotomy might, after a month or two, be recommended with a fair prospect of success. On putting a trocar into the large upper cyst, nothing escaped, though the instrument could be moved in all directions in a very large cavity. The canula was filled with a dark amber-coloured jelly,—extremely tenacious. The tumour was therefore semi-solid, the prognosis consequently most unfavourable, and for some days I was doubtful whether it would be right to advise any farther interference. It was remarkable, however, that after this fruitless tapping there followed increased diuresis with profuse perspirations, and in five or six days the serous infiltration of the cellular tissue had everywhere disappeared except above the pubes. The abdomen became softer, here and there

was faint crepitus, and the tumour could be seen moving freely with the respiration through the thin wall. There was still the peculiar swollen spongy state of the vagina, but the uterus was now slightly but distinctly movable from the tumour. Though much relieved, the pulse remained as before. This improvement did not last long, for her girth, which had fallen to fifty-one and a-half inches in a few days, again increased to fifty-three inches.

The question of operation was now calmly discussed. It did not seem probable that life would be prolonged for more than a few months, and she already felt that they could not be other than months of misery. On her asking me whether there was as much to fear as to hope for after the operation, I could not say that the chances of success and failure were even equal, but I thought, that of three such cases two would probably die after ovariotomy, and she knew as well as I did, that in no other way was there a chance of being restored to her husband and children.

After a good night, ovariotomy was performed on the 30th of April. Professor Hubbard of Newhaven, U.S., and Dr Sköldberg were present. It was necessary to break up the tumour, as nothing would flow through the largest canula. The upper half consisted of a large sac filled with thick dark jelly of the tenacity of glue. The lower portion was made up of small jelly cysts. These were broken up, and the whole finally withdrawn through an incision about seven inches in length, after separating some very slight parietal and omental adhesions. Extending from the right of the umbilicus, downwards into the pelvis, there was a broad rent in the tumour, but the contents were too viscid to have escaped into the abdominal cavity. The opposing peritoneum in the right iliac region was much thickened, presenting the appearance of a vesicated surface. Here and there were small transparent cysts attached to the peritoneum of the wall, intestine and mesentery. From the pelvis I brought up these small cysts by the handful, each one having apparently a separate vascular attachment. There was some ascitic fluid in the pelvis, which coagulated on exposure to the air. There was a great amount of chronic peritonitis visible in all directions, and for fear of exciting irritation I did not sponge so thoroughly as usual. This peritonitis was most marked about the head of the colon, where there were numerous large red granular patches. The pedicle was short and friable, and was secured by a clamp, and the wound closed as usual. The operation lasted about three-quarters of an hour. The broken down cysts and cyst walls weighed fifty-five pounds.

The operation was performed on Monday forenoon, and up to the following Friday evening everything went well. The wound was healed and the stitches removed. The pulse remained steadily at 112, lower than before the operation. She suffered from acidity and was occasionally sick, but she took her food better than most patients generally do after ovariotomy. She was calm and cheer-

ful, wondering why she was kept so quiet, for she had suffered less than she used to do after her confinements.

On Saturday morning the report was, that she had not had a good night, on account of troublesome flatulence. She looked sallow, and the pulse had risen to 120. By afternoon the distention had increased, the epigastric hollow had disappeared, and the pulse was 130. In the evening she vomited some dark grumous matter, and after this had severe cardiac pain followed by syncope. She was freely stimulated, and by midnight she was again quiet and comfortable, and her pulse had fallen to 120.

Next morning there was an increase of the distention, and occasional vomiting. The clamp was lying loose, and was removed—the pedicle gradually sinking inwards. Moderate stimulation was carried on all day, the pulse remaining at 135. No relief of the distention could be obtained by enemas, the rectum tube, or by Faradisation.

On Monday afternoon the report is: Distention not so great. No discharge from pedicle, which has sunk far inwards. Has had a quiet placid day, looking quite herself, and talking cheerfully of the future. The tongue was moist, and cleaning at the edges. In the afternoon, slept several hours so quietly that the nurse could hardly perceive her breathing—the pulse was 125. This favourable condition continued till she was laid quiet for the night, when almost in a moment she passed into a state of extreme restlessness, with great heat of skin, and a full bounding pulse. Low muttering delirium quickly followed, and she died comatose towards morning, eight days after operation.

Decomposition set in very rapidly, and when an examination was made twenty-four hours after, it was difficult to make out exactly the morbid appearances. The wound was quite healed, and measured four inches in length—the end of the pedicle had become separated from its attachment to the skin, and was lying free at the bottom of the wound, surrounded by about a tablespoonful of fetid pus. The pelvis was shut off by a curtain of lymph from the general cavity of the abdomen. It contained about a pint of reddish serum, which coagulated on exposure to the air. Except in the neighbourhood of the wound, where the omentum and small intestine were glued together by healthy lymph, there were no signs of recent peritonitis. The signs of chronic peritonitis were as well marked as at the time of operation.

Though this operation was undertaken with a feeble hope of saving life, the disappointment at the result to all concerned was unusually great; for the ordinary and immediate risks of ovariotomy, which we all dreaded in such a feeble anæmic subject, had been safely got over, but the chronic peritonitis which existed at the time of the operation seemed to have gone on. Hence arose the distended condition of the intestines, causing the breaking up of the recent adhesions round the short pedicle, and its

subsidence into the abdomen, leading to the absorption into the blood of some putrid matter which could not find its way externally. The lesson the case teaches is, not to delay ovariotomy till the last stage of the disease is reached; for had removal in this case been possible before the chronic peritonitis, set up by the rupture of the cyst, took place, I have little doubt that the result would have been different. I do not regret having made the attempt to save a valuable life, and the patient's friends had at least the consolation that she was saved from the misery that rarely fails to attend the last stage of ovarian disease, and which is so graphically described by Dr West:—"The pulse grows feebler, and the strength diminishes every day; and one by one each customary exertion is abandoned: at first, the efforts made for the sake of change which the sick so crave for are given up; then those for cleanliness; and lastly, those for comfort; till at length one position is maintained all day long in spite of the cracking of the tender skin, it sufficing for the patient if in that respiration can go on quietly, and she can suffer undisturbed. Weariness drives away sleep, or sleep brings no refreshing. The mind alone, amid the general decay, remains undisturbed; but it is not cheered by those illusory hopes which gild, though with a false brightness, the decline of the consumptive; for step by step death is felt to be advancing; the patient watches his approach as keenly as we, often with acuter perception of his nearness. We come to the sick chamber day by day to be idle spectators of a sad ceremony, and leave it humbled by the consciousness of the narrow limits which circumscribe the resources of our art."

CASE XLVI.—*Multilocular Ovarian Cyst, containing Hair and Teeth. Ovariotomy. Recovery.*

M. C., an Irish girl, seventeen years of age, was sent to me for ovariotomy by Dr Matthews Duncan. In June 1865 she had pain in the left side, with irritation of the bladder. In August she detected a small tumour, which increased rapidly after an inflammatory attack in October, which confined her to bed for a fortnight. In July 1866, it occupied the whole abdomen, the girth at the umbilicus being thirty-four inches. The uterus was high, and drawn to the left side; there was no evidence of adhesion. She was thin, but her general appearance was healthy, and her family history was good.

Ovariotomy was performed on the 1st of August. Professor Saxtorph of Copenhagen, Dr Duncan, and a number of other friends, were present. After tapping a large cyst, the incision was extended to the umbilicus, to allow of the escape of the semi-solid portion of the tumour. The pedicle was secured by a clamp two inches from the right side of the uterus, and the wound was closed by silk sutures. It was a fat cyst, containing hair and teeth. The whole weighed thirteen and a-half pounds. She recovered rapidly, and was going about three weeks after operation.

CASE XLVII.—*Nearly Single Cyst. Ovariotomy. Recovery.*

In July 1866, Dr Menzies took me to see Mrs N., aged twenty-seven, in whom he had detected a large ovarian cyst, after her first confinement, six weeks before. During her pregnancy she had suffered very much from the immense distention. When I saw her she was just recovering from an attack of peritonitis, which had confined her to bed for nearly three weeks, and there was still so much general tenderness that no very careful examination could be made. Her greatest measurement was forty-one inches, and the abdomen was everywhere soft. The uterus lay low in the pelvis, and was but slightly movable.

Ovariotomy was performed on the 16th of August. Professor Macrobin of Aberdeen, Dr Burns, Dr Cuthbert, and Dr Taylor of Canada, were present. The whole anterior surface of the cyst was closely adherent to the abdominal wall. After tapping, these adhesions were broken down, and the tumour removed, when it was found that there was no proper pedicle. The cyst was quite sessile. The clamp was therefore applied round the neck of the tumour, near to the uterus, and secured externally. The adhesions were vascular, and much sponging was necessary. The intestines were distended, and of a dark colour, and here and there patches of lymph were visible on them. The right ovary was twice the natural size. It felt rough, but as there were no cysts in it, we agreed not to remove it.

After the operation there was an unusual amount of pain from the beginning. Distention and colicky pains were troublesome; but the most severe pain was in the left groin and along the course of the anterior crural nerves, doubtless occasioned by the pull upon the uterus. For the first two days opiate enemas were sufficient to keep down the pain; but on the third day the suffering became excessive, and I was several times on the point of putting her under chloroform. Relief was at length obtained by injecting morphia, with Wood's syringe, into the groin, hip, pubes, or wherever the pain was most acute. The temperature continued to rise till the fourth night, when it was 103·3. The pulse had also then risen from 140 to 150, and the respiration to 30. Uterine epistaxis came on on the third day, and continued four days. The clamp was allowed to remain, though it was depressed to near the sacrum. For some days her condition gave rise to much anxiety. After the fifth day, however, all unfavourable symptoms gradually gave way; large sloughs of dead cyst wall were removed, she soon regained strength, and went home four weeks after operation.

The reports of Cases XLVII. and XLVIII. will be given afterwards. In one, the patient was sixty-five years of age, and the tumour, a large multilocular of 40 lbs. In the other the tumour was semi-solid, weighing 28 lbs. Both patients are nearly well.

EDINBURGH: PRINTED BY OLIVER AND BOYD.