An address on the treatment of bleeding and other uterine fibroids by removal of the appendages / by Alban Doran.

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AN ADDRESS
ON
THE TREATMENT OF BLEEDING AND OTHER UTERINE FIBROIDS BY REMOVAL OF THE APPENDAGES.[1]

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Experience shows that removal of the ovaries and tubes involves suppression of menstruation. Experience also shows that removal of the appendages stops the severe bleeding associated with some cases of myoma of the uterus, and usually does so without entailing much, if any, neurotic disturbance. It also arrests the growth of the "fibroid," excepting in the case of certain varieties of that form of tumour. These facts are important, for though removal of the appendages is sometimes difficult, it is certainly not so dangerous as hysterectomy, whilst the hæmorrhages may be the sole source of trouble in a case of "fibroid." The explanation of the good effects of the operation in question is by no means clear. Pathologists have shown that both the ovaries and endometrium undergo changes in fibroid disease, but the significance of these changes is obscure; indeed, they seem to me to be purely secondary. As to the cutting off of nutrition by ligature of the ovarian vessels, that may account for the arrest of menstruation. It cannot satisfactorily explain why the fibroid grows less, for the uterine arteries remain unligatured and can supply the tumour with an indefinite amount of blood. I need not discuss nerve influences; they may be left to the consideration of neurologists.

In comparing the spontaneous disappearance of uterine fibroids[2] with their disappearance or conspicuous diminution after removal of the appendages, it must be remembered that in the latter case pregnancy, so powerful a factor in the former, cannot occur. Again, it must not be forgotten that the menopause is often postponed in cases of fibroid neglected, or treated by purely palliative measures, nor does the tumour begin to decrease immediately after the menopause. Case II in the present series was 45 years old,

[1] Read at a meeting of the Devon and Exeter Medico-Chirurgical Society, April 20th, 1894.

[2] I have discussed this question at length in a communication "On the Absorption of Fibroid Tumours of the Uterus, with a Report of a Suspected Case." (*Trans. Obstet. Soc.*, vol. xxxv, 1893.)

the eldest of the six. The tumour was steadily increasing, and menorrhagia was severe. Directly after the operation the period was reduced to a few spots of "show" at long intervals, whilst the tumour steadily diminished in size. The result could not be due to the coincidence of a natural menopause, and the same may be said of the five other cases, all younger.

One interesting result of successful removal of the appendages is the advent of marked stoutness. This was seen in Cases I, II, and V. In all the corpulence was marked and clearly represented more than mere restoration to health.

The well-marked neurotic symptoms which not rarely follow removal of the ovaries are well known and should always be recorded by the operator in a report of his cases. They differ entirely from the symptoms of hæmatocele or pelvic inflammation, septic or otherwise, setting in late after operation. They are often most marked when the checking of the period is most complete from the first, as in Case I. The severe nerve disturbance of an artificial menopause is a strong contraindication to removal of the ovaries for a purely functional neurosis aggravated at the menstrual period. For if a woman, aged 25, suffer mentally at her period she is likely to suffer worse from its premature suppression. In cases of bleeding fibroid neuroses are seldom present excepting as effects of anæmia.

In all the six cases here recorded neuroses were observed after operation. In Cases II, III, IV, and V flushings of the face, a well known sign of the menopause, occurred, and in Case II as early as the eighth day. This symptom appeared on the twenty-first day in a patient on whom I operated in February, 1894. In Case I there was a feeling of extreme weakness and discomfort when a slight show appeared during the third week. The miliary eruption soon after operation must not be ranked as a neurosis of the same class, if it be a neurosis at all. In Case VI there were free perspirations and numbness of the upper extremities. In Case III there was severe lumbar pain three months after operation, but the suffering was in great part due to a chill. None of these neuroses involve any danger.

The surgeon must always endeavour to remove every trace of ovarian tissue. This is easy and safe when, as in Case IV, the ovarian ligament is elongated. The task, however, not rarely proves to be impossible. The ovarian ligament, often very long when its ovary has become a large cystic tumour, is, in the normal condition, frequently too short to allow of a safe pedicle if all the ovary be cut away. In cases of large myoma this ligament frequently remains unstretched and not hypertrophied. Moreover, just as small myomata sometimes develop on the ligament close against the ovary, so, on the other hand, semi-detached pieces of ovarian tissue may lie on the ligament close against the uterus. The operator must tie the ligature as close to the uterus as possible; then, if any trace of ovarian tissue remain on the stump, it will be on the distal side of the ligature, where it will almost certainly undergo atrophy. When the surgeon finds that the ligature, as he pulls it tight, cuts into the pedicle, that means that it is cutting into ovarian tissue. The silk should be loosened and tied closer to the uterus. The ovarian ligament is very tough, and is not readily cut by the ligature silk. In Case I, though there was

a distinct piece of ovarian tissue left, the catamenia were completely suppressed, nor, as other cases (II, III) here related will prove, does the leaving of a minute piece of ovarian tissue prevent the involution of a hitherto growing fibroid. We must not overlook the fact that the operation is not without danger. The appendages may be diseased and strongly adherent to the tumour and adjacent structures, as in one case which I will relate; but their separation and removal will not involve much peril if the operator be fairly experienced. The operation must not be performed when the anæmia is so marked as to involve in itself immediate danger to life. Under such circumstances the hæmorrhage should be checked for a time by local applications and ergot (if that drug is of any avail), and then tonics must be given. In the summer of 1890 I lost a case by operating too late.

The patient, a single woman aged 40, had bled severely for six years, and all kinds of treatment had been tried. She was very anæmic, and subject to frequent syncope, even when lying in bed. A solid fibroid reached to the umbilicus; the cavity of the uterus measured five and a-half inches, the cervix was expanded by a submucous growth. The urine was distinctly albuminous. The fluid blood and clots which came away at every period were very pale. On June 26th, 1890, I operated. The peritoneal cavity contained a little reddish fluid. The uterus was invaded by a large myoma, which extended into Douglas's pouch. There was also a pedunculated subperitoneal fibroid anteriorly. Hence any attempt to get away the submucous growth (which was part of the main tumour) from the vaginal side, would have been useless, and the patient was not in a condition to bear hysterectomy. I therefore decided to remove the ovaries. This was easily performed, and no ovarian tissue was left behind. Antiseptics were used without the spray. Unfortunately the faintness and albuminuria increased after the operation. On July 2nd the patient passed a few clots, the faintness grew worse, and she died on July 8th, after two severe attacks of syncope. At the necropsy no signs of thoracic disease, peritonitis, or sepsis were found. The left kidney was rather below the normal size, and its capsule was strongly adherent. There was evidence of slight subperitoneal hæmorrhage around the right pedicle, and it was loosely adherent to the parietal peritoneum, which (owing to its position on the tumour) it touched. The extreme anæmia had proved fatal. No doubt the renal disease played a prominent part in bringing about the fatal result.

I have ever since remembered the case, which I feel it my duty to report, as a warning against operating when the patient is in an acute stage of anæmia, and I remain averse to remove appendages when there is evidence that part of the tumour presents very definitely in the uterine cavity. When anæmia is steadily progressing in a case of bleeding fibroid, interference is called for as soon as possible, before the patient's health is dangerously reduced.

I will now relate in detail six cases where I operated over twelve months ago. As the benefits of removal of the appendages are not always immediate, no more recent case can be safely reported as cured. An artificial menopause is a phenomenon which demands long and patient observation.

CASE I, aged 41. *Fibroid: Menorrhagia: Removal of Normal Appendages Four Years and One Month ago: Show during Convalescence and Nineteen Months later: Total Suppression of Catamenia afterwards.*—M. S., aged 41, single, came under my care in March, 1890. She had been subject for over seven years to great losses of blood at and between the periods, and no palliative treatment had been of any avail. I found that the uterus was bulky and anteverted; the cervix, very short, lay high up in the pelvis, the os, which was narrow and circular, looking backwards. The sound passed four inches and a half forwards and distinctly upwards; in fact, there was a fibroid in the anterior wall of the uterus. On March 28th, 1890, I removed the appendages. The right were easily reached and secured by ligature; the left were rather difficult to draw up from the pelvic cavity, as part of the fibroid enlargement of the uterus overhung them. They were secured, and then both appendages were cut

away. The appendages first secured were not amputated until the ligature had been applied on the opposite side; otherwise, in searching for the left appendages, the stump of the right might have been dragged upon and the ligature loosened. Owing to the shortness of the ovarian ligaments, a minute portion of ovarian tissue was left on the distal side of the pedicle. I rather feared at the time that the object of the operation would be frustrated.

On the fourth day an eruption of sudamina appeared on the wrists, with free metrorrhagia and rise of temperature. On the thirteenth day a fresh miliary rash appeared on the abdomen, and there was distinct show. Ten days later a small clot was expelled; this was on April 20th, 1890, and the menstrual molimen was said to be present, causing a feeling of extreme debility and discomfort. After recovery from the operation, nothing like a period was seen until the last week of October, 1891, when there was show for fourteen days, not so free as before the operation. On February 6th, 1894, the patient informed me, in a letter, that she was in excellent health and had grown very stout. No show of any kind, nor the slightest menstrual molimen, had occurred since October, 1891.

The eruption of sudamina with fever and uterine hæmorrhage, observed in this case, represents a phenomenon not rare after simple ovariotomy. The eruption seems unusual after removal of the append-

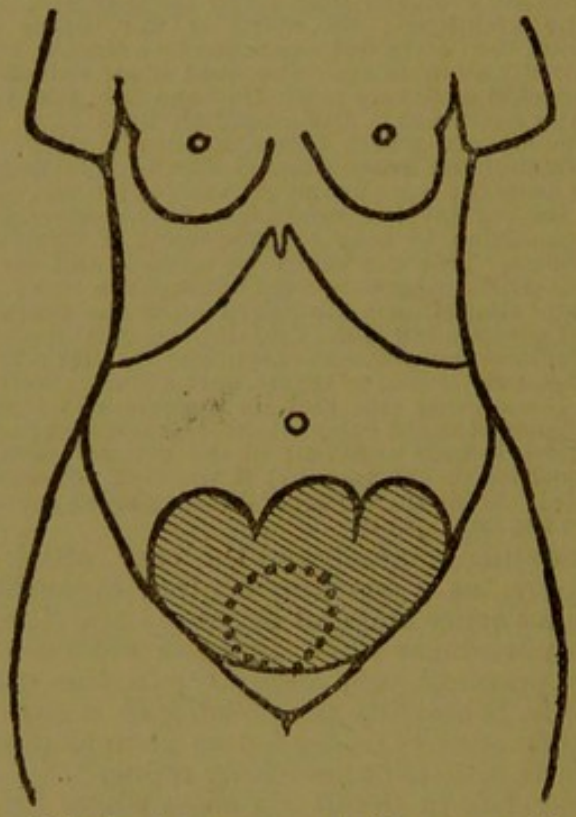

Fig. 1.—Case of E. L. Appearance of abdomen on December 14th, 1890. The dotted line shows the outline of the tumour on September 15th, 1893.

ages for fibroid disease. I have never observed it in any of the numerous cases performed by my colleagues and myself at the Samaritan Hospital.

CASE II, aged 45. *Fibroid: Menorrhagia: Removal of Normal Appendages and of a Pedunculated Growth Three Years and Five Months ago: Steady Reduction of Tumour: Catamenia Practically Suppressed.*—E. L., aged 45, single, a patient of Mr. Canning Wilkins, of Tulse Hill, first consulted me on December 13th, 1890. She had enjoyed excellent health until three years previously, when she noticed that a tumour had developed in the lower part of the abdomen. Two years later menorrhagia set in suddenly, and was accompanied by severe frontal headaches. The tumour began to increase rapidly in size. After a chill in the early autumn of 1890, she consulted Mr. Wilkins, who found her suffering from hysterical hyperæsthesia, especially in the region of the abdomen. None of the symptoms of peritonitis were observed.

The patient was pale and thin. A tumour occupied the lower part of the abdomen, reaching to within an inch of the umbilicus. Three lobes could be distinguished. Its appearance is represented in Fig. 1. The right lobe was the largest; the lobe on the left side was freely movable.

The large right lobe descended into the pelvis, involved the upper part of the cervix, which was very short and invaded the broad ligament. The os lay so high, close against the pubes, that the sound could not be safely or satisfactorily introduced. Touching any part of the tumour caused pain. Ergot had proved unavailing to check the profuse show which occurred every four weeks, and the tumour was growing larger. On December 27th, 1890, I performed abdominal section. On pushing up the omentum I found the right appendages projecting, low down and rather anterior to their normal position, from the outer surface of the right lobe, which came close to the brim of the pelvis on the right side. The valley between them was just wide enough to admit my fingers when I drew up the appendages. The middle lobe of the fibroid projected into the upper part of Douglas's pouch, and four or five small pedunculated growths hung from its back aspect. The same lobe blocked the left side of the pelvis, invading the left broad ligament and pushing the left appendages upwards and backwards. In front of the appendages lay the left lobe, which was pedunculated. Thus the left side of the pelvis was more involved than appeared on bimanual palpation; the tumour invaded both broad ligaments, and the appendages were fairly accessible.

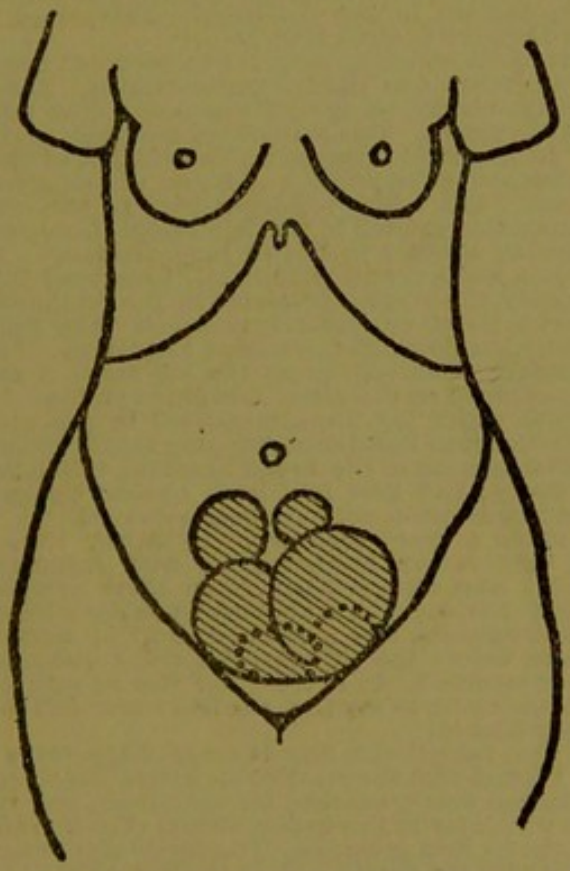

Fig. 2.—Case of M. G. Appearance of abdomen on January 21st, 1891. The dotted lines show the extent of the tumour on April 5th, 1894.

Thus removal of the ovaries and tubes would be safe, and the symptoms indicated it, whilst the tumour would have been, owing to its connections, difficult and dangerous to remove. The pedunculated left lobe was, however, unavoidably bruised, so I transfixed and ligatured its pedicle with No. 3 silk, and cut through it, after enucleating the lobe, so that the stump of the pedicle consisted of nothing but capsule. The left appendages were easily removed. The right gave more trouble. The vessels in the infundibulo-pelvic ligament were large; I secured them separately, and then transfixed the broad ligament, tied it, and cut away the tube and ovary. A very small piece of ovarian tissue was left on the distal side of the ligature. The ovaries together weighed 2 ounces, and the right contained a large recent corpus luteum.

Recovery was rapid. On the eighth day the patient suffered from flushings of the face. On September 15th, 1893, I saw her for the first time since her recovery. She had grown stout, and ever since the operation the period had been reduced to the appearance of a few spots of blood at intervals of four or five months. In the spring of 1893 she felt aching pains in the tumour, which seemed to grow slightly larger for

awhile. I examined the pelvis and abdomen. The appearance of the tumour is represented (Fig. 1). It was reduced to a small (almost smooth-surfaced) spherical mass, rising hardly 2 inches above the pubes. It lay chiefly to the right of the abdominal cicatrix, which was firm and sound. The mass still projected be hind the cervix, which was short. The sound passed forwards 3½ inches.

CASE III. *Large Fibroid: Menorrhagia: Great Pain: Removal of Normal Appendages Three Years and Three Months ago: Great Reduction of Tumour and Disappearance of Pain: Partial Suppression of Catamenia.*—M. G., aged 41, single, a patient of Dr. McClement, R.N., came under my care in January, 1891. Two years before a small tumour was discovered rising above the left groin. She consulted Mr. Knowsley Thornton, who prescribed medicine, which gave considerable temporary benefit. By January, 1890, the tumour had grown very large; afterwards its increase was slow. The patient's health was bad, as severe lumbar pains came on about a week after the catamenia, and lasted four or five days. They were most severe just before their disappearance. The catamenia appeared every four weeks, the show lasting about three days, and often reappearing for a day within a week later. On the first day the show was profuse. The lumbar pain succeeding the period was the particularly distressing feature in her condition. The period was not more painful and hardly more profuse than before.

The lower part of the abdomen (Fig. 2) was occupied by three spherical solid growths, all movable as though pedunculated. A fourth mass evidently included the uterus, being continuous with the cervix, which lay high up behind the pubes. This mass filled Douglas's pouch.

On January 24th, 1891, I operated. The fundus of the bladder was drawn up 2 inches above the pubes, and lay on the enlarged uterus, very much in the way. The left appendages were to the left of the large spherical pedunculated growth in the left groin. The ovary was much enlarged, measuring about 2 inches in long diameter. It contained a ripe corpus luteum and a dropsical follicle. I removed the appendages, securing separately the enlarged vessels in the infundibulo-pelvic ligament. The ovarian tissue was entirely removed. The right appendages lay inconveniently low down on the side of the uterus. I removed them, securing the vessels separately as on the left side. A minute piece of ovarian tissue remained on the distal side of the stump. In this case the part of the fibroid which lay unpedunculated in the uterine wall had burrowed into both broad ligaments, stopping short of the mesosalpinx,[3] that is to say, that portion of the broad ligament which lies between the tube and the ovary; had that fold been opened up by the growth, of course the appendages could not have been removed.

The patient made a rapid recovery. In April, 1891, however, she suffered from very severe lumbar pain, with menorrhagia. Dr. F. McClement, R.N., who attended her when these symptoms appeared, informed me that she caught cold at church two days before the violent lumbar pain came on. She had also been exerting herself a great deal for several weeks before the illness. The pains disappeared in a few weeks, and never recurred. In October she was in excellent health; in December, 1891, she wrote to say that she had never felt so well since the appearance of the fibroid.

On April 5th, 1894, the patient, now 44 years of age, came to London for examination. I found that the mass of spherical fibroids, which at the time of the operation nearly reached the umbilicus, was reduced to two small swellings which lay in the hypogastrium (Fig. 2) and could hardly be detected except by firm pressure. The pelvic mass was reduced to a small swelling behind the cervix. The sound could easily be passed two inches forwards. The pain from which the patient suffered before the operation had entirely disappeared. In 1893 the patient was troubled with headaches and general heaviness at times, otherwise her health was good. Flushing of the face was frequent till last winter. Hardly any show was seen in 1893, but smart uterine hæmorrhage occurred in January and February, 1894. The patient appeared to be in excellent health; she had not grown stout.

CASE IV. *Fibroid: Dysmenorrhœa: Removal of Normal Appendages Two Years and Four Months ago: Podagra during Convalescence: Steady Reduction of Tumour: Total Suppression of Catamenia.*—M. B., aged 35, single, a patient of Dr. Beeby, of Bromley, Kent, came under my care in November, 1891. She was a gouty subject, and had suffered from podagra repeatedly, the last attack occurring three months before I saw her. Two years previously she was laid up with what she termed "inflammatory indigestion." For the last twelve months she had noticed an abdominal

[3] This condition, not uncommon in cases of uterine fibroid, is explained in a drawing illustrating my paper on a "Large Cystic Myoma of Uterus of over Twelve Years' Duration removed by Enucleation: Recovery" (*Med. Chir. Trans.*, vol. lxxvi, p. 329).

swelling. Dr. Beeby wrote: "On October 19th, 1890, I was called to see her, and found her complaining of pain in the abdomen running through to the back, and she said that a doctor had told her she was subject to gravel. I found the bladder partly full of water. She then told me that she had not passed any since the evening before, and that when the attacks of pain came on she usually had a difficulty in passing water." The urine was drawn off and then a tumour was discovered, rising half way to the umbilicus. The period was regular, appearing every fourth week, and very painful on the first day. There was, it is interesting to note, no menorrhagia.

I found a solid tumour in the hypogastrium (Fig. 3). It was bilobed, rising on the right side half way to the umbilicus; the top of the left lobe was lower and lay in the left groin; the fundus of the uterus was in front of this lobe, about 2 inches above the pubes. The cervix was short, high up in the pelvis, and displaced to the left; it was continuous with the left lobe of the tumour, which descended into Douglas's pouch. The sound entered 3 inches.

The operation performed on December 3rd, 1891, was rather difficult, and the bladder was drawn high up, lying much in the way. The lobes had invaded the broad ligament, but fortunately, as in Case III, the

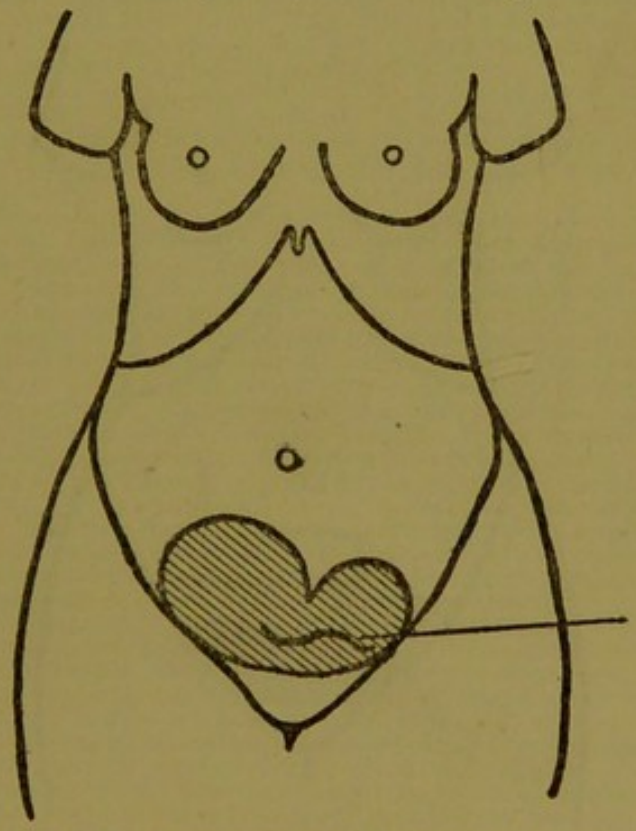

Fig 3.—Case of M. B. Appearance of abdomen on November 6th, 1891. The straight line on the left points to the fundus uteri.

mesosalpinx was not involved. Thus the left tube and ovary lay rather high on the surface of the left lobe of the tumour. Their removal was not difficult; the vessels in the outer border of the broad ligament were tied separately, being very large. The right appendages were hard to find. They were jammed between the bulging right lobe and the bony pelvis. The mesosalpinx contained three large lacunar cysts. I snipped the wall of the uppermost cyst with a pair of scissors; it collapsed, and the cut part appeared as a wound dangerously low down. I pricked the second with a needle. The appendages were then secured, and removed without much trouble. As the ovarian ligament happened to be stretched on each side, there was no difficulty in cutting away the ovaries without leaving any ovarian tissue behind

On the eighth day an attack of gout in the right great toe occurred. It rapidly yielded to specific remedies. The patient made a speedy recovery. On April 8th, 1892, I saw the patient, who was in excellent health; she was, however, troubled with flushings of the face, especially at night. The period had not reappeared. The tumour was distinctly smaller and caused no pain. On November 10th, 1893, I saw her again. She was strong and healthy. The flushings had disappeared for over a

year, and the catamenia had never been seen since the operation. The tumour could hardly be felt above the pubes. Dr. Beeby saw her on March 10th, 1894; she was then in excellent health, and no show had been seen.

CASE V. *Fibroid: Menorrhagia: Acute Perimetritis: Removal of Diseased Appendages Two Years and Three Months ago: Great Reduction of Tumour: Partial Suppression of Catamenia.*—R. L. B., aged 38, married, sterile, was seized with violent hypogastric pains in December, 1891, for which she applied to Dr. McLaurin, of Barnsbury, who called me in consultation. I found her in bed, suffering great pain; there was a tumour continuous with the uterus, too tender for satisfactory examination. In the spring of 1890 she first noticed a lump in the hypogastrium. Menorrhagia set in, and she was treated successfully for some months, when violent hypogastric pains occurred. There were the usual symptoms of perimetritis. After a few days' rest the pain passed off, the tumour feeling distinctly smaller than it was when I first saw her. It was firm and smooth, and lay chiefly to the right of the middle line (Fig. 4). The cervix was short and continuous with the abdominal tumour. On January 4th, 1892, her period set in, and very large clots were passed for several days with great pain.

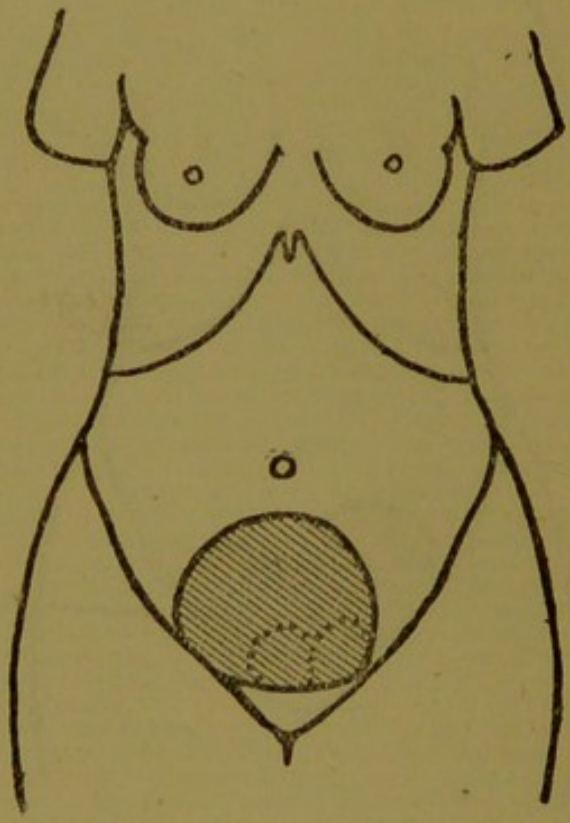

Fig. 4.—Case of R. L. B. Appearance of the abdomen on December 31st, 1891. The dotted lines represent the extent of the tumour on March 9th, 1894.

On January 21st, 1892, I operated. The tumour was a general fibroid enlargement of the uterus. There were two pedunculated outgrowths on the fundus to the left, rather posteriorly; the omentum adhered to them. The right appendages were reached without difficulty; they adhered to the surface of the uterus, to the omentum, and to a coil of intestine, and bled as they were set free. The tube was obstructed and dilated, the ovary slightly enlarged. After securing the vessels in the infundibulo-pelvic ligature I succeeded, not without difficulty (as the ovarian ligament was extremely short), in keeping the ligature on the proximal side of all ovarian tissue. The left appendages were difficult to reach, as the tube, greatly dilated, ran downwards and backwards over the surface of the fibroid. By rotating the tumour a little to the right I managed to draw up the greatly dilated tube and the ovary, which was much enlarged, being about 2½ inches in length. The tube adhered strongly to the pelvic peritoneum. I at length transfixed and ligatured the appendages, and cut both, right and left, away. By the pressure of sponges I succeeded in checking the free oozing which issued from the

left side of the pelvis when the appendages were freed from adhesions. This was fortunate, as it is hard to manage the drainage tube when a large tumour is left behind in the abdomen. Altogether, I felt inclined to think, after the operation, that removal of the uterus ought to have been performed. Yet notwithstanding the difficulty in removing the appendages entire—for a small piece of ovarian tissue was left on the distal side of the right stump—the best result of the operation was the steady diminution of the tumour, which continues to the present day. Convalescence was unexpectedly rapid, for though I had disturbed structures which had recently been in a state of acute inflammation, there was no high temperature.

The result was that the fibroid has steadily grown smaller, till on March 9th, 1894, it just rose above the pubes (Fig. 4). On the other hand, since January 10th, 1892, when the last period before the operation occurred, down till February 13th, 1894, uterine hæmorrhage has been seen, but without any menstrual molimen, six times. In the spring and summer of 1892 the patient suffered from flushings of the face, though her health was good; in August there was free show for a day or two. The next show was on December 11-12th, and was very slight. On March 8th, 1893, there was slight show for the third time, on May 19-25th free show. One day in August after a sea bath, slight show was noticed. From December 27-29th there was free show. From that date to March 9th, 1894, when I last saw the patient, no show was seen. She has grown very stout, and is in excellent general health. The feeling of weight caused by the size of the tumour when it was large has entirely disappeared, and no attacks of pelvic inflammation have occurred since the operation, nor any painful expulsion of clots. She has never been laid up since through any cause.

Case vi. *Fibroid: Great Anæmia from Menorrhagia: Removal of Normal Appendages One Year and Two Months ago: Great Reduction of Fibroid and Complete Suppression of Catamenia.*—E. J., aged 42, single, came under my care in January, 1893, referred to me by Dr. Amand Routh, who had observed her case for over two years. Profuse menorrhagia existed and was clearly due to fibroid disease of the uterus, and Dr. Routh considered the case as favourable for oöphorectomy. The patient was extremely anæmic. The period lasted for a week beginning with perfect regularity once a month. The show was very free so that a dozen napkins were required daily; large clots often passed. When 23 years old she had an attack of hæmatemesis and was dieted for seven months. I examined her and detected a spherical tumour which rose four inches above the pubes and was clearly connected with the uterus. The cervix lay close against the pubes and was continuous posteriorly with a spherical mass which extended into Douglas's pouch and proved to be the lower part ot the abdominal tumour. The sound passed five inches into the uterine cavity and the body of the uterus moved independently of the mass. Dr. Routh and myself considered that immediate interference was advisable. I feared delay lest the anæmia should advance so as to become an immediate source of danger, as in the fatal case already described. I operated on February 11th, 1893. As already shown by exploration there was a large fibroid growing from the back of the enlarged uterus. There was the usual alteration in the planes and level of the broad ligaments. Thus the left appendages lay abnormally forward and high up. I had no difficulty in removing them. The right appendages were, on the other hand, far back and rather low down; the tumour could not be rotated so as to bring them forward as it burrowed under part of the right broad ligament. I succeeded in securing and removing the right tube and ovary. The bladder was drawn high up and lay rather in the way. I could detect no ovarian tissue on the distal end of the stumps of the pedicles.

This patient made a good recovery. The period has never recurred since the operation. In June, 1893, the anæmia had nearly disappeared. She complained of severe headaches with free perspirations and a feeling of numbness along the right arm and left fingers. There was also depression of spirits. On February 2nd, 1894, the patient wrote to me from Southend stating that she had resided there since July when her health had began to improve, all the above-named symptoms disappearing. At the time she wrote her health was excellent and no trace of show had been observed. I have not had an opportunity of examining the fibroid, but according to the patient's account it has disappeared. Such accounts are, however, not always absolutely trustworthy.

The after-histories of these cases show that all the patients derived marked benefit from the operation. In 3 out of the 6 menstruation stopped completely; in 3 it was reduced to a very slight or occasional show of blood. In 1 of the total suppression cases the operation was successfully performed for fibroid disease with dysmenorrhœa, but no abnormal

hæmorrhage. In all the tumour of the uterus was reduced more or less. In Case 1, where the menorrhagia was stopped effectually, I have not had the opportunity of examining the patient for four years, but the uterus, judging from the patient's report, is at least much reduced in size. In 4 cases where I have been able to explore the pelvis and abdomen long after the operation, the reduction of the tumour was very marked. In all 6 neurotic symptoms followed the operation. For this reason, among others, patients require care for many weeks after amputation of the appendages for fibroid disease, especially when a period is due. The case may be almost as simple as an uncomplicated ovariotomy, but this very fact must put the surgeon on his guard; otherwise, if he allows the patient to get up before the third week, she will probably suffer from severe pain and from other complications, annoying to herself and discrediting to the operation which with due care has proved so satisfactory.

In respect to failures after removal of the appendages for fibroid, they are almost certain when attempted for the cure of very large fibroids, pedunculated or otherwise, especially where the catamenia remain normal. In cases of bleeding fibroid, failure follows the leaving of follicles in ovarian tissue on the proximal side of the ligature. I know of a case where "menorrhagia" continued after removal of the appendages by a skilful and experienced operator. A large fibroid polypus was afterwards discovered in the uterine cavity. This proves how necessary it is to use the sound carefully whenever possible. In cases, however, where the cervix is pressed against the pubes, that instrument cannot always be passed, at least to its full extent and without risk, and I have known of serious results following attempts to pass it.