Lettsomian Lectures

ON

MIDWIFERY AND DISEASES OF WOMEN.

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LECTURE III. (Continued.)

THE TREATMENT OF FIBROUS TUMOURS.

Secondly, we have to consider the cases of fibrous tumour of the uterus for which gastrotomy was performed; and the whole uterus, tumour, or part of either, were removed. (See Table III.)

The cases to which I shall refer are thirty-three in number. The particulars of another, which I have heard of, I have not been able to obtain.

These cases consist of four of Dr. W. L. Atlee, one of Dr. T. L. Atlee, one of Mr. Heath of Manchester, one of Dr. Sloane, two of Mr. I. Baker Brown, one of Dr. Boyd, three of Dr. Clay, one of Dr. Granville, one of Dr. Parkman, one of Mr. Lane of London, two of Dr. Peaslee, three of Dr. Kimball, one of Dr. Burnham, one of Dr. Nelson, one of Dr. A. F. Sawyer, three of Mr. Spencer Wells, one of Mr. Fletcher, one of Dr. Hakes, one of Mr. Cadge, and three of Dr. Koeberle. For notices and references to several of these, I am indebted to Mr. Clay's translation of Kiwisch on the *Ovaries*. To the same gentleman I am indebted for correcting some errors in some of his cases published by others. To Mr. I. B. Brown, to Mr. Wells, and to Mr. Cadge, I am indebted for the report of three other cases; to the distinguished physician of Strasburg, Dr. Koeberle, for notices of his three cases; as well as for the reference to Dr. Kimball's cases, which he kindly gave me.

A *resumé* of these cases establishes the following conclusions.

Where these particulars are noted, nine were married, and only four single.

Where the age is given, in two it was between 20 and 25; in one, between 25 and 30; in four, between 30 and 35; in two, between 35 and 40; in seven, between 40 and 45; in three, between 45 and 50; in two, between 50 and 55. One recovered between 20 and 25; one between 35 and 40; and two between 40 and 45. All the rest whose ages are given died.

The gross mortality of the entire thirty-three cases was twenty-three; the recoveries, ten.

As to the causes of death, nine died of hæmorrhage. In four of these cases, it was found that the hæmorrhage was due to the ligature having slipped after the operation, or being insufficiently tightened. In two other of the cases of death, the cause was probably excessive hæmorrhage during the operation. In most of these cases, it is also remarkable that it is not stated whether the pedicle left was transfixed, or the clamp used—a fact which may in some measure explain the loss of blood, the ligatures being insecure. Four patients are said to have died of peritonitis; two of gangrene of the intestines; one of pleuritis; one of poisoning; one of pus in the veins; one of phlegmo-

nous erysipelas of leg; one of inflammation brought on by a fall; and the rest of shock, between four to thirty-six hours after the operation.

The study of these cases, however, admits of a more practical application when divided into three classes: 1. Extrauterine cases; 2. Parietal or intra-uterine; 3. Cases where the uterus and ovaries were removed.

1. There were fifteen cases of extrauterine tumours extirpated. Five of these cases recovered, although one died three years afterwards of some obscure abdominal disease; three died of hæmorrhage; in two, owing to the slipping of the ligature—an accident which in our days could scarcely occur, with our improved means of securing cut surfaces; one died of shock; the remainder, of inflammatory complications. This gives an average mortality of 66 per cent.; or, if we exclude the two hæmorrhage cases, where death arose because the ligatures employed were insufficient, of 61.4 per cent. But, in three more of the fatal cases, enucleation was performed—a proceeding which I believe is unwise, when made by gastrotomy from the outer surface. It is precisely on the surface that we have the large vessels; and although, after a time, the uterus may contract till the enucleation is completed, they continue to bleed very freely. Again, as in contraction after pregnancy, the uterus partially relaxes again; secondary hæmorrhage may occur, and death follow. And here I may refer, as an argument against enucleation, to the effect produced by wounding a fibrous tumour through its uterine envelope by gastrotomy. Looking to some of the cases before given, it will be seen that, in two of these, the uterus was punctured externally in making the incision. In three others, it was purposely punctured by the trocar. In all but one—Mr. Hakes's fibrocystic case—the hæmorrhage was excessive from such openings. In the case I saw, the blood gushed out as from a pump. In two other cases, in one of which I saw a puncture made through the vaginal wall by a small exploratory needle, and in another which I myself punctured by a very small trocar, the hæmorrhage was also excessive, and could only be controlled by the actual cautery. This point is of practical importance in making exploratory punctures through the abdomen, and pointing out the great risk of enucleation or puncturing a solid tumour through the external coating of the uterus.

2. In the next class of cases, where the tumours were *parietal*, or partially *intrauterine*, involving the uterus itself, in some cases fibrocystic, the result is much more deplorable; and, out of nine extirpations of this kind, there were eight deaths, and only one recovery. Of the deaths, five were due to hæmorrhage. Here, again, however, the cut surfaces were not well secured. In one, there was oozing from the cut surface; in two others, the ligature slipped. In four examples, again, only *portions* of the diseased mass were removed. This, for the reasons before said, would be a dangerous course. The low vitality of the cut tumour would necessarily lead to its gangrene, and, as a consequence, to the death of the patient. In one of these, we had death from pus in the veins at the *post mortem* examination; in another, erysipelatous inflammation of the leg; in the two others, death from hæmorrhage. In these last, enucleation was again practised after gastrotomy. Hence the death from hæmorrhage and shock. And it is remarkable, that the only case in this category that

TABLE III.—Cases of Fibrous Tumours of the Uterus for which Gastrotomy was performed, and the Tumour or Uterus removed.

No.	Operator and Reference.	Age	Previous and General History.	Steps of Operation.	After Progress.	Final Result.
1	Dr. W. L. Atlee, of Philadelphia. <i>Am. Journ. of Med. Sci.</i> 1845.	24	Tumour occupied hypogastr. & r. iliac region; uneven, tender, only moveable superiorly. <i>Vaginal exam.</i> Extended below convex arch of pubis. Occupied pelvic cavity and pressing agst. perineum. Cld. be moved independently of uterus, when this was raised in pelvis. In the centre was a ridge, about as thick as finger, occupying central position, and running in an antero-post. direction. In its anterior end was the os. Backache. Tumour after extraction was in various diameters, 1 ft. 7 in., 1 ft. 6½ in., and 1½ in. <i>Extrauterine.</i>	Operated Aug. 28, 1843. Free incision 8 in. from umbilicus to pubes, w. peritoneum. This last taken up and cut open. Intestines forced out, with difficulty returned. Four oz. of serum exuded. Tumour found occupying right side, and dipping deeply in pelvis; and upon passing the index finger of each hand, it was elevated. Immense pedicle from the tumour to the r. side of uterus, thick, vascular, 1 to 2 in. broad. Transfixed by a needle, tied & cut. No bleeding. Wound closed by 15 hare-lip sutures.	Immediate effects, vomiting & tenesmus. Peritonitis followed, which was subdued. Pedicle of ligature came away on 8th, the rest on 18th. Convales. Sept. 18, 21 days after operation.	Returned home Sept. 25. Cured 25 days after operation.
2	Dr. T. L. Atlee. <i>Ibid.</i> , vol. 85. 1845. p. 335. <i>Atlee's Table.</i>	42	Disease of uterus fibrous. <i>Extrauterine.</i>	Operated 1843. Long incision. Several adhesions: 4 uterine tubercles with thick vascular pedicle.	..	Died from hæmorrhage 5th day, from slipping of ligature.
3	Dr. W. L. Atlee. <i>Am. Med. Jour.</i> 1855.	39	Married. Menses present at time of oper. & cont. without interrupt. Found to weigh 6 lbs. <i>Extrauterine.</i>	Operated August 28, 1844. Incision from 1 inch above umbilicus to pubes.	..	Recovered, but died 89 days aft. oper. of cholera.
4	Ditto. <i>Ibid.</i>	45	Married. Found to weigh 6 lbs. <i>Extrauterine.</i>	Operated May 29, 1851. Incision fr. 2 in. above umbilicus to pubis. Omentum and sm. intestines forced out, with diff. replaced.	..	Died 3rd day from hæmorrh.
5	Ditto. <i>Ibid.</i>	40	Married. Three fibrous tumours, weighing 4 lbs. <i>Extrauterine.</i>	Operated Mar. 3, 1853. Incision fr. 2 in. above umbilicus to pubes. Tumour, found imbedded in substance of uterus, was enucleated. Small intestines forced out, with difficulty replaced.	..	Death from peritonitis 3rd day.
6	Mr. Heath, of Manchester. <i>Lond. Med. Gaz.</i> vol. 33, 1843, p. 309.	46	Single; never pregnant; anæmic. Suffered fr. menorrh. 4 yrs. 12 mos. ago noticed tumour in abdomen, size of large orange, & occupying l. hypochond. On palpation, felt like uterus of woman 7 mos. gone. Diagn. ovarian disease. Tumour found to weigh 6 lbs. <i>Intrauterine.</i>	Operated Nov. 21, 1843. Incision from ensiform cartilage to half inch above pubes. Tumour came into view recognised to be uterus filled with solid matter. Removed <i>en masse</i> . Transfixed, 2 ligatures being placed on cervix and broad ligaments.	Immediate effects, sickness. Collapse 14 hrs. after operation.	Death 18 hours after operation. P.M. Internal hæmorrh. oozing from cut surface of uterus.
7	Dr. J. Sloane. <i>Braithwaite</i> , vol. 37, p. 201.	..	Tumour began 3 years ago, mistaken for an ovarian by Mr. Eddison of Nottingham, and believed to be so by two surgeons of the hospital. <i>Extrauterine.</i>	Operated. Incision in median line; bleeding profuse. Old firm adhesions between uterus and abdominal wall. Several cysts cut through. Pedicle, nearly circular, tied.	Syncope at first, rallied subsequently a little, but	Died five hours after operation.
8	Mr. I. B. Brown. <i>Braithwaite</i> , 45, p. 210. <i>Lond. Med. Rev.</i> 1862, 320. L. S. Home.	34	Had been very weakly; got better under tonics. The tumour perfectly mobile, and was supposed to be ovarian. It had grown rapidly. After removal, weighed 7 lbs. A hysteroma. <i>Parietal and intrauterine.</i>	Operated. Explorat. incis. Some hæmorrh. from portion of tumour slightly wounded. Found to grow fr. within walls of uterus. Tumour firmly tied by two double ligatures passed through it. All portion above ligam. cut off. Stump of uter. kept outside.	Progressed at first favourably, but subsequently died.	Died. P.M. Pus in iliac veins. Peritonitis. Intestines glued together.
9	Dr. J. M. Boyd. <i>Am. Journ. of Sci.</i> 1856, vol. 33, 572.	..	Previous history not given: a negro. Uterine tumour; not otherwise defined. Weight after operation found to be 45 lbs. <i>Involving entire uterus.</i>	Operated June 13. Incis. fr. umbil. to pubes. Tumour found to extend beyond umbilic. Incision, therefore, extended 1½ in. higher. Tumour found attach. to sacral & lumbar verteb. involv. uterus & adher. to ovaries. Adhesions torn, ligaments severed, leaving only vagina attached. Cervix now transfixed, 2 ligatures, lateral halves tied. Pedicle secured at lower part of incision. Spermatic artery of right side only required ligature.	Hæmorrh. about 10 ounces from various sources. The ligatures of the pedicle came away 16th day. In March, patient resumed her avocations.	Cured.
10	Dr. Clay. <i>Med. Times</i> , No. 164, and Lee, p. 208. <i>R. Lee, Med. Ch. Tr.</i> 34, p. 21.	45	Tumour size of gravid uterus at 8th month. Hard, unyielding, tubulated, moveable, not fluctuating. Tumour after removal weigh'd 12 lbs. and included part of os and cervix. Supposed ovarian. <i>All uterus and ovaries.</i>	Operated in 1842. Incision 13 inches. Tumour exposed; had a broad attachment, the greater part of uterus forming tumour; great difficulty in securing exposed vessels. <i>Both ovaries, which were diseased, and entire uterus removed.</i>	Attacks of Syncope.	Died 1½ hour after operation, of shock. Ligature found aft. insuff. to compress thickened neck of uterus.
11	Dr. Clay. R. Lee's paper, <i>Med. Chir. Tr.</i> 34, p. 21.	52	Enormous enlargement of abdomen of 16 years' duration. Uterus after operation found to be enlarged to 12 lbs. Ovaries and uterus diseased. <i>All uterus and ovaries.</i>	Operated in 1844. Incision 12 inches. Both ovaries and uterus removed, converting vagina into a cul-de-sac.	The wound healed, ligatures thrown off & progressed rapidly to recovery when she acid. fell heavily when the bed was making to the gr'd.	Died 15th, of secondary inflammation induced by the fall.
12	Dr. Clay. <i>Lancet</i> , 1863, 418.	..	Fibroid uterus, 75 lbs wt. Ovaries found unhealthy, filling up so entirely cavity of pelvis as to render dissection very difficult. <i>Involving all uterus and ovaries.</i>	Operated in 1863. Entire tumour and ovaries removed, leaving only a small piece of cervix.	..	Recovery complete.
13	Dr. Granville, Dr. R. Lee. <i>Med. Ch. Tr.</i> 34, p. 14.	30	Tumour supposed to be ovarian, but examined by Dr. R. Lee, and found to be fibrous tumour adherent to fundus by a small thick pedicle. Wgt. 8 lbs. <i>Extrauterine.</i>	Operated March 21, 1827. Incision nine inches long.	..	Died. A portion of small intest. came in contact with pedicle wh. incised, and became infiltrated & gangrenous.

TABLE III—continued.

No.	Operator and Reference.	Age	Previous and General History.	Steps of Operation.	After Progress.	Final Result.
14	Dr. S. Parkman. America. <i>Lyman's Report</i> Bost. 1856.	27	Single. Tumour of one year's duration. Regular. Tapped, but no fluid followed. Fibrous Tumour of uterus, weight 8 lbs. 13 oz. <i>Parietal, involving entire Fundus.</i>	Operated Jan. 8, 1848. Incision from ensiform cartilage to pubes. Ascitic fluid escaped on making incision. Tumour tapped; no fluid followed. On being raised, found to be a fibrous growth, involving entire fundus. Ligature applied through and around lower part of organ, tied with great force. Tumour excised. Both ovaries healthy.	..	Died of hemorrhage, 12 hours after.
15	Mr. Lane. London. <i>Clay's Table, Kitchin Trans.</i>	43	Twice married. No children. Disease of 8 or 9 years' duration. Cyst spontaneously disappeared 5 successive times, at intervals of about 12 to 18 months. For the last 2 years before the operation, the cyst did not give way, and she was 3 times tapped. Health good. <i>Extrauterine. Fibrocystic.</i>	Operated Feb. 15, 1844. Incision 7 in. A pedicle was formed of that part which sprang fr. uterus. Temp. ligat. were first applied, the cyst was then severed close to temp. ligat.; afterwards 6 perm. ligat. were applied—each including about 1 inch of the cut edge of the portion of the cyst left attached to the uterus. The pedicle was left within the abdom. cavity. Wound united by 7 sutures. Not within the peritoneum.	Pulse rose from 80 to 120 the 1st day. On the 2nd day was 130, on the 3rd it had fallen to 100.	Patient recovrd. in three weeks. Married three years after operation, and again in a year. Died 1½ year after, of disease of bladder.
16	Dr. E. R. Peaslee. America. <i>Am. Journ. of Med. Sci.</i> 1853, p. 393.	35	Widow with 4 children. Tumour in right iliac region noticed 18 months previously. Leucorrhœa. Dysuria. Numbness of the extrem. Had pelvic inflammation after her last child, 17 months back. Tum'r moveable, falling into lower pelvis when she is erect. Catheter necessary for several weeks. Sound penetrated 3½ in. Uterus moveable while the tumour is fixed. <i>Extrauterine.</i>	Operated Sept. 1853. Incis. 6 in. Trocar thrust in what appeared a dense sac filled with fluid. <i>Nothing but blood followed.</i> Incision enlarged; tumour then found to proceed from uterus. <i>Trocar puncture was bleeding freely.</i> Operat. c'd not be suspens. Attempts to vomit, & intestines protruded. Incision extended, & ligature placed ar'nd uterus as soon as pos. & excised. Hemor. did not exceed 6 oz. Ligatures brought out at lower angle of wound, by side of wh. a gum elastic tube was left introduced. Wound united by 6 needles carried thro' the peritoneum.	..	Died, Peritonitis 5th day.
17	Dr. Kimball. Bost. Med. and Surg. Journal, 1855.	..	Anæmic. Unable to lay on her back. Hemorrhage at the periods fearful, likely to prove fatal. Tum'r occupied centre of abdomen. Form globular, large; diameter probably 7 inches. <i>Vaginal examination:</i> Cervix normal. Sound penetrated 4 to 5 inches. <i>Diseased mass was so high up in abdomen that could not be felt per vaginam. Involving all uterus.</i>	Operated Sept. 1. Incis. 1 in. thro' median line upon projecting tumour. Attempt made to enucleate first, so as to remove diseased mass, and thus make smaller openings. This was done with difficulty. Uterus then drawn out. Transfixed with double ligature at suppos. union w. cervix. Superior part then amputated. Wound brought together by 4 sutures. 4 oz. of blood lost.	Recovery somewhat retarded by nausea and vomiting, retention of urine, etc. Convalesc. quite in Jan. Ligatures rem. very long, not away till July.	Recovery complete.
18	Dr. Kimball <i>Ibid.</i> p. 254.	..	Supposed ovarian. Enormous irregular and lobulated tumour, involving uterus only.	Whole diseased mass and organ removed.	Favourable for six days, 7th got ill.	Died 10th day.
19	Dr. Kimball. <i>Ibid.</i> p. 254.	..	Particulars not given. Fibrous within walls of uterus. <i>Parietal.</i>	Uterus extirpated.	Favourable for two days.	Died 3rd day, from slipping of ligature.
20	Dr. Walter Burnham, of Lowell. <i>Nelson's Amer. Lancet,</i> Jan. 1854.	..	Also copied in <i>Worcester Medical Journal</i> , February 1851.	Uterus and both ovaries extirpated.	..	Recovered in two months.
21	Dr. Nelson. America. <i>Amer. Medical Monthly,</i> 1859-60. <i>Bost. Med. and Surg. Journ.</i> 1859-60, 507.	..	Of 5 months standg., and consisted of 3 lobes, of which largest filled whole of left iliac region, and ext. to the ribs and to the right of linea alba, causing much distress by compressing chest and stomach. Diagnosed to be ovarian cyst. <i>Extrauterine.</i>	Two largest lobes removed by the knife, leaving a stump three inches in diameter.	Ligature came away a few mos. aft. without patient's knowledge. <i>Ibid. Journal,</i> 1858, 237.	Recovered without a bad symp. Died 3 years aft. of obscure abd. disease, w. fistulous opening in intestine.
22	Dr. A. F. Sawyer, of San Francisco. <i>Am. Journ. of Med. Sciences,</i> 1860, 46.	43	Married, 4 children. Tumour first noticed 1849. In 1855 was of size of two fists in centre of abdomen, sinking when erect in pelvis. In Oct. 1856, confined of a healthy child. After this, uterus could no longer be felt, and tum'r resumed its position in pelvis, which was moveable. <i>Parietal.</i>	Operated under ether. Incision from a above umbil. to pubes. Was a large solid growth imbedded in parietes like an enormously hypertrophied uterus. Ovaries rested on either side of tumour, left healthy, right hypertrophied. Transfixed by a ligat. below cervix, all above removed. Ligatures left hanging out of wound. Tum'r was calcareous, mixed up with fibroplastic ingredient, and muscular and cerebiform matter.	Favourable up to 4th day, when rigors occurred, nausea, vomiting. Pulse 140.	Died 6th day. P.M. Peritonitis. Sanguinous fluid and clots, 10 oz. Ligat. on stump of wound somewhat loosened. Death from secondary hæmorrh.
23	Mr. T. S. Wells, of London. Communicated and Operation seen.	..	Interstitial fibroid of uterus in right uterine wall, of months' duration. Severe menorrhagia. Obscure fluctuation. Tumour extdng. above umbilicus. Weight found to be 17 lbs. <i>Parietal.</i>	Gastrotomy. Tumour wounded accidentally with knife. Fearful hemorrhage. Large vessels on surface. Tumour enucleated, uterus contracting afterwards. Edges of wound tied. Portion right side of uterus hypertrophied or fibroid.	Collapse. Exhaustion.	Death four hours after from shock and hæmorrhage
24	Ditto. Communicated	..	Solid fibrous tumour of uterus, weighing 28 lbs.	All the uterus excepting the cervix and both ovaries removed.	Went on well for three days.	Died fourth day from poisoning.
25	Ditto. <i>Path. Trans.</i> xiv, 201.	53	Single. A case of fibrocystic pedunculated outgrowth. Right side of fundus. Weight, 16 lbs. 1 oz.; and a large cyst which had held 26 pints of fluid, and 4 lbs. of lumpy masses of decomposed fibrine. <i>Fibrocystic.</i>	Operated upon as for ovariectomy. No important adhesions. Right ovary attached to tumour and removed. Left connected to uterus.	Shock.	Died four hours after operation.

TABLE III—continued.

No.	Operator and Reference.	Age	Previous and General History.	Steps of the Operation.	After Progress.	Final Result.
26	Mr. Brown. Communicated Lond. Surg. Home.	45	Single. Admitted May 6, 1860. Health good up to last 3 or 4 yrs., when she had faintness and epistaxis. Regular up to Oct. last. Nine years ago disc. small tum'r r. side of abd.; this did not inc. till 3 or 4 years ago. Had grown rapidly last 6 months. Had pneumonia 10 yrs. back. Last March had erysipelas. <i>Examination:</i> Small ovarian tum. also a solid mass above pubis like an enlarged uterus. Sound only gets within the os. Hymen perfect. Lungs sound. Heart healthy, but weak. <i>Fibrocystic.</i>	Operated May 15. In dissecting as far as peritoneum, the cyst found to be so adherent that, in endeavouring to break it down it was ruptured and three or four pints of fluid escaped. A firm fibrous mass was then discovered bound down by such firm adhesions that it could not be moved. Therefore a piece of cyst on each side was cut off, and the wound closed as usual.	Went on pretty well till the 28th, when fluctuation became distinct over abdomen, w. erysipelatous redness. Pulse quick. Tongue dry and foul. 31st, began to sink.	Died June 8, of phlegmonous erysipelas of left leg. The same epidemic prevailed in the hospital.
27	Mr. Fletcher. Communicated by Dr. Grimsdale.	40	Widow with 5 children. Three miscarriages. Ceased to menstruate 6 months ago. Tum'r frst noticed 13 months ago on right side. Circumference of abdomen, 37½ in. Tum'r moveable, containing large masses of old matter. After operation, tumour found to weigh 14½ lbs. Struct. identical with uterine fibroid tum'rs, studded with cysts of various sizes. <i>Extrauterine. Fibrocystic disease.</i>	Operated May 14, 1862. Incision, 5 in., from 2 in. below umbil. Anter. surface of tumour closely adherent, & 3 in. of edge of omentum to tumour on right side. Trocar passed into tumour, scarcely any fluid came. Incision extended to 2 in. above umbilicus. Many cysts ruptured or punct. Tumour found to spring from back of uterus below the fundus and to left of median line. Its base (it could hardly be called a pedicle) was about 1½ in. diameter. This was cut with éraseur in about 20 minutes. Two ligatures of iron wire put on vessels which bled on the cut uterine surface. Ligat. cut short and left. Wound closed by pins and fig.-of-8 sutures, and superficial sutures. Abdomen not sponged out.	Vomited once or twice the night and day after operation; complained of pains like afterpains in the uterus. These relieved by gruel, 1½ oz. tinct. opii, 20 minims. Had very little stimulant.	Recovered well. Readmitted into hospital a few months since, with eczema; otherwise well and fat.
28	Mr. Hakes. Brit. Med. Journal, Feb. 28, 1863.	42	Married. Had 2 children, youngest 15. Enlargement first noticed 18 months ago. Then appear'd to have abd. full of ascitic fluid, & a harder tumour below. Tapped; several pts. of amber fluid liberated, when an irreg. nodulated tumour was felt. Uterus moveable, but less so than usual. 9 months ago, tapped again, and when about 1 pt. of fluid had come away, cannula came agst. a hard tumour. Ten days aft. again tapped high up above umbilicus, and a large quantity of fluid came away. Cysts and solid tum'r rem. behind. <i>Diagnosis made ovarian dropsy. Extrauterine, fibrocystic.</i>	Operated Jan. 29, 1863. Incision usual length, to an in. above umbilicus. Tumour found adherent to omentum & intestines. Connected by a small band, with scarcely a pedicle. This was transfixed by double ligature, and both sides tied, a third wire encircling the whole. Tumour was found to be made up of cysts of narrow sizes with thin walls. One or two, however, with solid bloody matter. Right ovary was felt to be somewhat enlarged. Some fluid escaped in abdomen, which was sponged out.	For several hrs. appeared to be doing well. Still never rallied.	Died 33 hours after operation, from shock. P.M. No inflammatory action; wind firmly hld. Both ovaries dis. each cont. 2 or 3 small tumours. Small polypus found on cervix uteri, and 1 or 2 fibroids imbed'd in uterine wall.
29	Mr. Cadge, of Norwich. Communicated 1863.	30	Single. Health good. Five years' growth. Generally regular, at one time there was slight sanguineous drain, never hemorrhage. Tumour was in abdomen, size of 8 months pregnancy. Diagnosed at Norwich and in London to be ovarian. <i>Parietal.</i>	When abdomen was opened, tumour rolled out. Tapped; found solid. Uterine wall now peeled off and tumour enucleated. 3 or 4 large vessels tied, and then redundant flaps, wh. had cov. the growth, mov. As the bleeding was, however, very free, to check this, & also remove any smaller tumours, wh. might & probably did exist, a strong double ligature was passed thro' cervix, and lateral halves tied, and whole uterus and ovaries removed. There was no more bleeding.	..	Died of shock apparently, 36 hours after operation.
30	Dr. E. R. Peaslee. America. Am. Journ. of Med. Sci. 1855, p. 393.	35	No account of duration. Tumour was found to be a uterine fibroid, 5½ in. long, 4 broad, and 3 thick. <i>Extrauterine.</i>	Operated Sept. 21, 1853. Incision 6 in. Tumour taken for fluctuating one; punctured with trocar. Great hemorrh. A ligat. was then applied round neck of tumour & whole body above the ligature excised.	..	Death on 4th day, from peritonitis and gangrene of intest.
31	Dr. Koberle. Med. Gaz. of Strasbourg, No. 10, 1863. Presse Médicale Belge, Nov. 1863.	30	Married 6 years. Nervous. Began to menstruate at 15. No children. Miscarriage 5 yrs. ago at 3 months. Then noticed hard tumour left side of pelvic region. This was made out to be a uterine fibroid. It grew without disturbance of gen. system. 3 years ago, believed to be a mixed tum'r. Arsenical pills and iodized iron prod. no effect. Micturition difficult. Menorrhagia w. sickness at the epochs. In present state, tumour believed to be ovarian or fibroid of uterus.	Operat. April 20, 1863. Incision 3½ centim. above umbilicus to 3 above pubes. Little bleeding. Tumour free from adhesions superiorly, but connected w. epiploon by 3 arteries as large as radial. Ligat. & cut. Tumour found to be solid. Incis. enlarged. Pedunculated tumour came out, and was secured by the chain of an éraseur. Intestines were now moved aside. Uterus found large, contain'g a fibroid size of nut. Right ovary healthy; left large, w. Graafian vesicle on it ready to burst. Cervix transfixed, double iron ligature applied including broad ligaments and ovaries. The whole part above the ligatures cut. Cavity of abdomen cleaned out. Ends of cut portion touched with perchloride of iron. Other vessels tied.	Very fair pulse, never rose above 105. Suff'd from cough. Ligature came away on 13th or 14th day.	Recovery complete 30th day.
32	Koberle. 2nd case.	..	Ascitic for a long time, obliging punct. by the trocar every 5 days, to remove 12 or 13 pints of serum. Operation one of urgency. <i>Pedunculated Extrauterine.</i>	Operated December 5, 1863. Adhesions very extensive and highly vascular. Twenty ligatures applied both to arteries and veins.	..	Died of peritonitis as a result of the recurrence of ascites.

TABLE III—*continued.*

No.	Operator and Locality.	Age	Previous and General History.	Steps of the Operation.	After Progress.	Final Result.
33	Kœberle. Communicated	24	Tumour weighing 33 kilog. 5 yrs. ago, observed abd. was enlarging. First came a suspicion of pregn'cy, then of an ovarian tumour, fluct. being very evid. Tapped 7 times without effect. In 1863, belly enorm. swelling ext. to scaphoid cartilage. Dyspnoea urgent, face cyanosed, decubitus lateral. Fluctuation was so evident, she was again tapped, blood only exuding. Walls of abd. slightly cedematous. <i>Extrauterine, Pedunculated.</i>	Operated March 4, 1863. Incis. 55 centim. Large fibroid exposed, which at the least succussion shook like jelly, adherent to epiploon by large tortuous vessels. These tied and cut on both sides. Ovaries healthy. Metallic ligature put around pedicle, wh. was about size of a fist when cut. At least 2 litres of blood came away from cut end. Parts now sponged. Large bleeding veins tied. A small superficial part of adherent liver having been removed, exuded bile and blood. This was arrested by the perchloride of iron. Operation lasted 2½ hrs. A small portion of air retained in abdomen. Wound closed.	For two first days did pretty well; 3rd, violent sickness, and death from exhaustion and dyspnoea.	Died March 8. P.M. Air absorbed. Wound two-thirds heal'd. Some serum inferiorly from cedematous walls. Tumour entirely disappeared. No phlebitis or false membrane. Two litres of sero-purulent fluid in right pleura. Death thus due to pleurisy.

recovered was one in which it was stated that all the uterus except the cervix was removed. All in and about the diseased organ was removed.

3. The last category of cases, however, appears to be most interesting. In all, they amount to nine, with four recoveries. One death here appears to have resulted from hæmorrhage, the ligature not having been sufficiently secured; and one death was purely accidental.

This last, one of Dr. Clay's, had all but recovered; the wound had healed; the ligatures had come away; and she was progressing rapidly towards convalescence, when she fell heavily to the ground when the bed was making. The shock to her system appears to have determined inflammatory complications, of which she died.

These last two cases should, therefore, fairly be excluded. This would give seven cases, and four recoveries—more than half. In all these, the ovaries (with the exception of one case, one of Mr. Wells, in which *one* ovary only was removed) were extirpated, as well as the entire uterus. And, in order that this should be done, the uterus must have been high up and well without the true pelvis.

It is obvious, however, on more closely reviewing these cases in which gastrotomy has been performed successfully, that it is precisely in those cases where the tumour was high up in the false pelvis, that the success has been greatest. Secondly, in those where the ovaries were removed, it is this same contingency which contributed to their ready extirpation also; and, thirdly, it was also in these cases where the whole diseased mass was capable of removal.

The first contingency is the reverse of what we observed in cases of enucleation *per vaginam*. If such tumours are to be removed by gastrotomy at all, it is a favourable position. Secondly, a very little reflection will shew that it would be impossible, except in a case where the uterus and ovaries were high up in the false pelvis, to remove them *en masse*. For, if we look for a moment to the large vessels in immediate contiguity, the broad ligaments which have to be cut through, the position of the bladder, ureters, spermatic artery, the objections to the operation appear very great, almost insurmountable, if there be any extensive adhesions; and yet the only four cases on record, if we exclude extrauterine tumours, in which recovery has followed, have been the cases in which Drs. Clay, Burnham, Kœberle, and Boyd removed both uterus and ovaries. And this could not have been effected, unless, as before urged, the uterus and ovaries had been well drawn up

outside of the true pelvis, where they could be easily got at and removed.

At *post mortem* examinations, with the abdominal walls opened low down, even to the front of the bladder, and when all the intestines are moved out of the way, even when the rectum is included, anybody who has tried it must have experienced how great is the difficulty to separate away the contents of the true pelvis. But, admitting it were possible, how could the arteries cut across be secured? and would it be possible to remove such a mass without wounding the large veins in this cavity?

[To be continued.]

Transactions of Branches.

BENGAL BRANCH.

ADDRESS IN MEDICINE: THE PRESENT STATE OF THE MEDICAL PROFESSION IN BENGAL.

By S. GOODEVE CHUCKERBUTTY, M.D.

[Concluded from page 88.]

THERE are now in the Calcutta Medical College three classes of students: the first created, or the English class; the next created, or the military class; and the third created, or the Bengali class. Into each of these, young men of all castes, creeds, and colours, of all nations and countries, are freely admissible; and from them have annually gone forth into the world large numbers of physicians and surgeons. Connected with this College, there is now a magnificent hospital, in the wards and dispensaries of which relief is afforded to a vast number of patients, in every department of the profession; an extensive museum of anatomical, pathological, zoological, mineralogical, and pharmaceutical specimens; a fine chemical laboratory; a good library; and vast dissecting accommodation. Following the example of Calcutta, similar medical schools have been formed also at Bombay, Madras, Hyderabad, Agra, and Lahore. Thus there are now six well-founded medical colleges in the country, three of which belong to our own Presidency; and numbers of good hospitals. In all these, a vast number of students are learning together, in honourable rivalry, every branch of medical knowledge imported from the best schools of Europe. We have side by side English medical schools and vernacular medical schools, English medical teachers and vernacular medical teachers, English medical practitioners and vernacular medical practitioners. Year after year, a fresh crowd of medical students are