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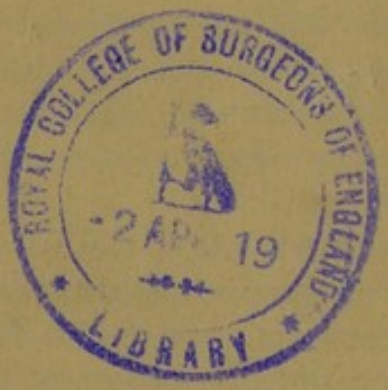

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A Myomectomy and an Ovariotomy for Fibroma during Pregnancy: Labour at Term in Both Cases.

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These two cases of an abdominal operation on tumours developed in the female genital tract, in both instances complicated by pregnancy yet without interruption of that process, may interest the readers of the Journal. I will therefore briefly relate them, adding some observations on the experience of others on one particular type of ovarian tumour, namely, fibroma, and on the perils involved by deferring the removal of the tumour until after delivery.

Case 1. *Myomectomy during Pregnancy.*

L. W., aged 28, was sent to me on December 16th, 1904, by Dr. P. H. Ross, of Westcliff-on-Sea, who wrote to say that the patient was suffering from a fibroid of the uterus, and appeared to be about two months pregnant. The tumour lay well down in the pelvis, and would, in his opinion, render natural labour impossible at term.

I found that the lower part of the abdomen was distended by a prominent bilobed swelling which nearly reached the umbilicus. The right lobe was very soft, feeling like a pregnant uterus; the left was much harder. The lobes were separated above by a distinct depression, but lower down there was no groove between them. The cervix was pushed to the right by a firm convex mass which occupied the whole of the left half of the pelvis considerably below the level of the brim. The cervix was continuous with the right or softer lobe of the abdominal tumour, and the convex mass was continuous with the left or harder lobe.

The patient had been married for four and a half years, and the catamenia had continued regular ever since her marriage until October 14th, 1904, ceasing entirely after that date. She had never suffered from any serious malady, and was in good health when I examined her. Morning sickness had commenced in November, but was not severe. The areolæ were developing very conspicuously.

I considered that the patient's condition would not be improved by waiting, and so I operated on December 29th, 1904. The pelvis was elevated. When the abdominal incision was made the gravid uterus was exposed; then I delivered an irregular solid tumour, with large veins on its capsule, which lay on the left of the uterus, but also extended considerably backwards. It was held down by dense adhesions to the back of the left broad ligament, which were clamped and separated. Then I found that it was continuous with the back and fundus of the uterus. The area of junction was about three inches by one inch in diameter; in fact, it was a sessile, subserous fibro-myoma. I made a circular incision into the capsule about one inch from the uterus, and then enucleated the base of the tumour. There was less hæmorrhage than I expected, and bleeding points were easily secured by the pressure forceps. The cut edge of the capsule consisted of a very thick serous coat and of a thinner layer of muscle. I united the divided muscular layer with a continuous fine catgut suture; then a big artery was tied with a stout catgut ligature. The serous coat was closed with catgut Lembert suture. Lastly, the abdominal incision was united by means of interrupted silkworm gut suture, including the peritoneum.

As the pregnancy continued deep pigmentation developed in the scar. On July 23rd, 1905, Dr. Ross wrote to inform me that the patient had been delivered of a healthy female child on July 15th, after a rather lingering labour of nearly thirty-six hours. The delay was due, in the first place, to a large excess of liquor amnii, so great that there was much difficulty in making out the presentation, apparently breech. The uterus was very irritable, contracting directly it was touched, so that turning was impracticable. Dr. Ross ruptured the membranes when the os was fully dilated, and both feet came down at once. The case was left for a while to nature until the breech was born, and then the child was delivered quickly. It was well-developed, and weighed seven pounds. Involution of the uterus proceeded quite normally. The patient herself wrote to me during the second week of the puerperium, stating that her condition was quite satisfactory.

The tumour was examined by Dr. Cuthbert Lockyer. It was firm

and of an irregular oval form. Its measurements were 6 inches vertical, 5 inches transverse, and 4 inches antero-posterior, and its weight was 2 lbs. 2 ozs. In structure it was a typical fibro-myoma.

Remarks. Thumim[1] tabulates 62 cases of simple myomectomy in pregnancy performed between 1885 and 1900. This series includes six deaths—two from sepsis, both infected before the operation; one from peritonitis, also existent before the removal of the tumour; two from "heart failure;" and, lastly, only one from hæmorrhage from the stump. Thus the danger of bleeding is not great, and in this solitary case (Frommel) abortion followed the operation, a complication which would favour hæmorrhage. One patient underwent operation during labour (Olshausen), and to this case I may add Herbert Spencer's, where the tumour was safely removed nine hours before delivery at term.[2] There remain 55 cases on Thumim's list that recovered, and abortion only occurred in 10 instances.

Pregnancy was uninterrupted in two cases of myomectomy recorded by Cullingworth,[3] and in four reported by Bland-Sutton,[4] and other operators have met with success. As far as the enucleation of the myoma from its base or its pedicles is concerned, the operation is relatively the easier for the existence of pregnancy, as the hyperplasia of the connective tissue favours the manual separation of the tumour from the uterine walls.

The development of hydramnion in my case was remarkable, but it is for authorities on the physiology and pathology of utero-gestation to determine how far it might have been due to the operation.

Case II. *Ovariotomy for Fibroma during Pregnancy.*

H. S., aged 25, was sent, in September, 1904, to Dr. C. Hubert Roberts' wards in the Samaritan Hospital, by Mr. Thomas Mudge, of Hayle, Cornwall, on account of an abdominal tumour associated with pregnancy. She had been married for fourteen months, and the period, previously regular, had ceased completely since the last week in June. The patient was a very healthy young West Countrywoman, who had never suffered from any illness excepting inflammation of a varicose vein of the left leg in 1900. The abdominal walls were thin, a large oval mass filled the right flank and extended upwards more than half-way to the umbilicus; it was firm and elastic, clearly solid, and freely movable. On the left of the mass the fundus of the uterus, enlarged and soft, could be felt about an inch above the pubes. On bimanual palpation the displacement of the uterus to the left was felt to be very marked in the

pelvis. The tumour just reached the pelvic brim, but could be pushed down much lower, and moved almost independently of the uterus. The breasts were enlarged and firm, and the areolæ marked, though the patient was of very fair complexion.

There could be little doubt that a solid ovarian tumour was present, complicating pregnancy. Pedunculated sub-serous fibroid was just possible. We considered that the free mobility of the tumour was an indication for abdominal section at once, for the removal of a pedunculated growth does not involve great risk of abortion, whilst if it be not removed axial rotation is highly probable, and should it occur it may occasion very bad complications. Descent of the tumour into the pelvis involves yet greater peril.

I operated on September 24th. On exposing the pregnant uterus I found that the mass on its right was a dull-grey, solid tumour as big as a large orange, attached to the right appendages by a very narrow pedicle. As is not rare in cases of fibroma of the ovary,[5] several ounces of bloody serum were found free in the peritoneal cavity. On drawing out the tumour I saw that the right ovary, small and flat, lay separate, behind and below it. The tumour was so loosely attached that it tore itself off from its pedicle directly I let go of its fundus, leaving a rent on the back part of the right broad ligament, or, speaking more precisely, on the posterior layer of the mesosalpinx. There was little hæmorrhage, but as the left ovary and tube were normal, lying tucked down behind the gravid uterus, I thought it prudent to amputate the right appendages, though they were healthy, so that I might be able to avoid the dangers of hæmorrhage from the damaged broad ligament full of vessels engorged by pregnancy. The abdominal wound was closed with deep, interrupted silkworm gut sutures.

The patient was delivered at the end of March, 1905. In answer to enquiries Dr. Mudge kindly wrote to me: "The patient on whom you operated for fibroma when pregnant was delivered of a female child at full term. She had a good, easy time, and made an excellent recovery. She has never had a bad symptom since her return here. The cicatrix is as firm as a rock, and there is no sign of a hernia or anything like it." In August, 1905, Dr. Mudge informed me that she was "in excellent health, doing all her work."

I sent the tumuor to the museum of St. Bartholomew's Hospital. Dr. Herbert Williamson kindly reported that it was a fibroma of the ovary, weighing $11\frac{1}{3}$ ozs. Although separate from that organ at the stage of development which it had reached when I removed it, Dr. Williamson had no doubt of its ovarian origin. I noticed at the

time that it was not connected with the ovarian ligament, and that it sprang from the back of the broad ligament immediately above the ovary.

Remarks. There can be no doubt that in a case like the above it was best to operate without waiting for delivery and convalescence from the puerperium. Ovariotomy in pregnancy is attended with very little danger to the life of the mother and not much to the life of the fœtus. Orgler's valuable monograph[6] proves this fact, and his conclusions are fortified by the yet more complete statistics of a British authority, McKerron.[7] The latter has collected reports of 480 ovariotomies performed during pregnancy. The recoveries amounted to 451, the fate of two mothers remains unrecorded, whilst 27 were reported as lost. But McKerron demonstrates, with the aid of carefully prepared tables, that the mortality absolutely due to the operation for removal of the ovarian tumour may be reduced to nine in this series.

Turning to the fate of the child, McKerron shows that the effect of ovariotomy on pregnancy was noted in 289 of the cases in his series, and in only 54 was pregnancy interrupted and the child lost. "None of the alternative methods of treatment, it has been shown, gives a fœtal mortality of less than 30 per cent.," whilst in this series it was but 18·6 per cent.

Whilst ovariotomy during pregnancy has proved so satisfactory, experience has shown that, on the other hand, very bad results may follow the postponement of that operation until after labour. I have written elsewhere on this subject.[8]

Much has been related by British and foreign authorities on all things associated with ovariotomy during pregnancy. Among the most recent cases is that recorded by Bourdzinsky[9]—more interesting than satisfactory. He operated upon a woman with ascites and œdema in the fifth month of pregnancy, removing a cancerous tumour of the ovary about $6\frac{3}{4}$ lbs. in weight. At term there was a malignant growth on the posterior lip of the cervix and deposit in the fornices, with ascites. The patient suffered from gastric pains, and the pelvis was contracted; no measurements, however, are reported. Cæsarean section was performed, but the patient died on the third day. Widely-spread endothelioma was discovered, the stomach, intestines, uterus and lumbar glands being involved. The ovariotomy in this case gave the patient a few months of comfort.

The nature of the tumour in my case is of interest, as it was a solid fibroma. It is a mistake to consider that form of new growth as a great rarity. Briggs and myself alone have removed several

fibromas of the ovary. Swan[10] reports a case of fibroma in pregnancy where the operator was Howard Kelly, and includes 10 more in his tables; but those tables register 19 tumours as sarcoma, and I suspect that some of the latter may have been fibromas. Error is, or was, frequent, as proved by some after-histories which I collected nearly ten years ago. Fairbairn's monograph on this type of ovarian tumour[11] should be consulted by all who are interested in the subject; it contains a valuable table of references.

Diagnosis of fibroma of the ovary complicating pregnancy is of some importance. It resembles in many respects pedunculated subserous uterine fibroid. There can be little danger when the latter kind of tumour is detected above the pelvis in early pregnancy, for as gestation advances it rises higher and higher above the inlet. But my patient was only 25 years of age, and uterine fibroids are very rare at that time of life. On the other hand, fibroma of the ovary is much more frequent in very young women, and it is liable to fall into the pelvic cavity, where, as in one non-gravid case in my own practice, it may become impacted.[12] Such an accident would be very serious in pregnancy, and it might easily have occurred in the case above related.

The best known case which demonstrates the dangers which may arise if a fibroma of the ovary associated with pregnancy be not removed before labour pains set in, was recorded in 1890 by Dr. Walter S. A. Griffith.[13] I had the advantage of being present when delivery was effected by craniotomy, the patient being at the time very much exhausted. The case made a great impression upon me, especially as to the difficulties of diagnosis when labour pains have set in. In 1890 abdominal section during labour was dreaded on grounds which further experience has shown to be false, and I bore in mind Dr. Griffith's note: "The tumour had a good pedicle, and if an abdominal section had been performed, and the uterus had been emptied by a Cæsarean section, it could have been removed without much difficulty."

John Phillips' case[14] is of some interest. A woman, aged 28, was seized, during the fourth month of her first pregnancy, with violent pain in the right iliac region. A fixed swelling of the size of a fist blocked the upper part of the pelvis. It could not be pushed above the brim, and abortion was induced. Three months later, subserous uterine fibroid being diagnosed, it was decided to attempt the enucleation of the tumour. A transverse incision was made into Douglas's pouch and a tumour removed. It was a pure fibroma of

the right ovary, 3¼ inches long by 2½ broad. The patient afterwards bore a child.

The violent attack of pain was caused either by torsion of the pedicle or by the tumour slipping into the pelvis, a complication highly probable in a case like my own had I not removed the fibroma while it was still in the abdominal cavity.

Sometimes a fibroma of the ovary is rather soft, so that on bimanual palpation, though easily distinguished from the adjacent pregnant uterus, it might be taken for a malignant growth. But whatever the nature of the tumour it is advisable to operate as soon as possible. At that conclusion Coudert has arrived in a recent monograph on solid pelvic and abdominal tumours of the ovary associated with pregnancy, [15] and his opinion is based on the experience of many authorities. For the removal of a fibroma of the ovary during pregnancy is usually an easy task, involving little danger to mother or child, whilst it is quite otherwise with any kind of operation during labour.

Both these cases have one feature in common, easy diagnosis. Often it is far otherwise, and when the ovarian tumour or uterine fibroid is unrecognised until labour sets in the difficulty becomes extreme, and it is itself a source of danger because of its possibly misleading influence on the obstetrician. Errors of this kind are familiar to us, and I must add here three reports, commendable for their instructive candour, recently discussed at a meeting of a German medical society.[16] Dr. Schröder, of Bonn, operated upon a woman, aged 49, for what was diagnosed as malignant ovarian tumour closely connected with the uterus. She had borne eight children, and the period had been regular, the last taking place a month before the operation. A freely movable, tense tumour reached up to the umbilicus and extended downwards into Douglas's pouch; the cervix lay high up behind the pubes. There had been increase in bulk of the abdomen and slight hæmorrhages for three weeks. The tumour proved to be the uterus itself, which was amputated above the cervix. The lower segment was deeply sacculated posteriorly, fitting into Douglas's pouch, hence the error in diagnosis. Everke, discussing this case related how he was called in many years ago by a colleague who had endeavoured to deliver with forceps in a case where labour was impeded apparently by an ovarian cyst. An attempt was made to burst the cyst by firm pressure under anæsthesia. Everke delivered the child by Cæsarean section, and found that the tumour lay completely below the uterus. He closed the abdominal wound and reached the tumour through a vaginal incision; it was a fibro-myoma

1½ lbs. in weight, and was enucleated without difficulty. The patient recovered. Laubenburg delivered by turning in a case of labour obstructed by a hard, elastic, round, smooth tumour of the size of a fist occupying the hollow of the sacrum. As the head was being extracted the tumour collapsed with a distinct report. The child lived. The tumour did not grow larger; indeed, it steadily diminished in size, and a few months after labour it could be detected as a hard, irregular mass "of the size of an apple" in the right fornix.

Burke stigmatised the members of the French National Assembly as the ablest architects of ruin known in history, but the man who tries to push up a pelvic tumour during labour may prove a very unable architect of ruin. It is, to use Bland-Sutton's words, in opposition to all the canons of surgery. A pelvic tumour may prove to be a prolapsed kidney, as in Semon, of Dantzig's, case, where he operated before labour. Unintelligent pushing, combined perhaps with random punctures, during parturition, might have killed the patient. The dangers of bursting a dermoid full of grease and hair are evident. In short, in all cases such as I have described in this paper half measures are deadly, whilst bold surgery has proved itself triumphant.

Note.

On referring to the *Zentralblatt für Gynäkologie* for October 14th (p. 1247), I find an instructive report on a case of calcified fibroma of the ovary obstructing labour, and afterwards removed by Nebesky, of Innsbruck, in the sixth month of the patient's second pregnancy, which ended spontaneously at term. The patient was 27 years of age. At the first labour there appeared to be a tumour of the bony pelvis, and craniotomy was performed. Nebesky, before operating during the second pregnancy, could define an almost immovable tumour jammed between the uterus and the promontory. He found no difficulty in removing it through an abdominal incision, the gravid uterus being drawn forwards. The tumour was a fibroma of the ovary, entirely calcified and of the size of a goose's egg.

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12. "Fibroma of the Ovary; Impaction; Ascites; Removal." *Trans. Obstet. Soc.*, Vol. xxxix., p. 37. After History of the Case. *Ibid.*, Vol. xliv., p. 172.

13. "A Case of Obstructed Labour, in which a large Fibroma of the Ovary occupying the Pelvis was mistaken for the Head of an Extra-uterine Fœtus." *Trans. Obstet. Soc.*, Vol. xxxiii., p. 140. Kleinwächter (quoted by J. Phillips) and Coudert each publish a fatal case where labour was obstructed by a fibroma of the ovary.

14. "A Case of Ovarian 'Fibroid' Tumour removed by Posterior Colpotomy; Subsequent Pregnancy." *Lancet*, 1904. Vol. i., p. 365.

15. "Les tumeurs solides de l'ovaire à type pelvien dans leurs rapports avec la grossesse et l'accouchement." *L'Obstétrique*, 1904. Vol. viii., pp. 55 and 110.

16. "Ein supravaginal amputierten Uterus mit einer Blasenmole." *Monats. für Geburts. und Gynäkol.*, September, 1905, p. 436.