Retroperitoneal lipoma weighing thirteen pounds twelve ounces / by Alban Doran.

RETROPERITONEAL LIPOMA WEIGHING THIRTEEN POUNDS TWELVE OUNCES.*

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I CONSIDER it my duty to report this case of a large lipoma, not omental, but in every sense entirely retroperitoneal. Its removal proved extremely difficult, and the result, I regret to say, was death. Already Homans of Boston has very properly made public the equally unfavourable results following the removal of two still larger tumours of the same kind; whilst Terrier and Guillemain have shown that even an exploratory operation may prove fatal, and have questioned, not without reason, whether it be justifiable to attempt the removal of a tumour of this kind.

M. D. A——, aged forty-seven, came under the care of Dr. Cuthbert Lockyer early in June. She complained of abdominal swelling, and states that ten months ago her uterus came down and a ring-pessary was applied. Discharge occurred and gave her trouble. Dr. Lockyer examined her in the out-patient department of the Samaritan Hospital, and removed the pessary. He detected an abdominal tumour, ill-defined in character, and sent her into my wards at the hospital.

The patient was pale and rather stout. She had been married twenty-five years, and borne seven children; the youngest was eight years old. She seems to have had an attack of pelvic inflammation after her sixth child, but no traces remained of it, as I verified at the operation. Her friends had recently told her that she was growing stout.

The abdominal walls were much distended, though not actually tense. There was ½ resonance in front, and, after the administration of purgatives, also in the flanks. A soft tumour could be felt in the umbilical region: it did not come down to the pubes, and lay entirely above the pelvic brim; the uterus was small and moved freely. The borders of the tumour seemed easy to define; it was about 6 inches in vertical, and a little less in transverse, diameter. It felt not unlike a tumour of the parietes, but when the patient lay down there was resonance over its surface.† There was some

* Read before the Obstetrical Society of London, July 2, 1902.

† I once detected a resonance over a broad flat fibroma of the parietes.

lateral movement, not very free. The tongue was clean and slightly glossy, the appetite good, and the bowels well opened. The temperature rose to over 100° on the night of admission. The urine was clear, medium yellow; specific gravity 1022, and free from albumen. There was no œdema of the lower extremities, and no dilatation of their veins. The pulse was 84, small and regular.

Dr. Hamilton Bell detected "first sound at apex blowing in character, but no distinct murmur; sounds at base healthy."

Diagnosis was very uncertain; I therefore operated on June 21, assisted by Mr. Butler-Smythe.

On opening the abdomen an enormous flabby tumour came in view. It was its prominent anterior portion which alone could be detected on palpation. The omentum and transverse colon lay high up; the omentum, I may add, was remarkably short and thin. The tumour was covered anteriorly by the posterior parietal peritoneum below the mesentery; I could trace the serous membrane on to the pelvic viscera, which were quite normal.

I enucleated the tumour with ease in front inferiorly. There was little difficulty in freeing its sides, but above it passed up very high behind the abdominal viscera. It was bilobed, with a deep vertical fissure, complete, excepting for a bridge of fat about 2 inches thick, which connected the lobes a little below the umbilical level.

I succeeded in getting my hand above the left lobe, high up in the flank; its upper part looked like a sarcomatous kidney, but had no vascular connections and no duct. Then I drew the whole left lobe out of the wound, after securing a few vessels. I could now detect on the inner aspect of the right lobe a small, very spleen-like organ, purple from congestion. There was a distinct capsule, which seemed inclined to peel off, like the capsule of a kidney, and unlike that of a spleen. The vessels ran from the hilum into some main artery and vein at the normal level of the bifurcation of the aorta. I did not search for a ureter. At first I took this organ for the spleen, but, as it lay mixed up with an entirely retroperitoneal fatty tumour, I have no doubt that it was a right kidney placed abnormally low.

The upper part of the right lobe passed up very high (much higher than was the case with its fellow). I drew it out of its capsule behind the liver, but now I found that the right lobe had a pedicle of big vessels, which ran into the tumour close to the pancreas. Unfortunately, there were strong adhesions of indurated fat connecting the growth with the pancreas. That organ, I fear, was damaged during the separation of the posterior part of the right

lobe. The big vessels were carefully tied close to the pancreas. The left lobe was at this stage only connected with the body by a small pedicle of dense fat with big vessels, also traced to near the pancreas. I secured them and divided the pedicle; thus the left lobe was free altogether. The right lobe was adherent to the outer part of the displaced right kidney; I separated some vascular adhesions. Then the right lobe was separated from its pedicle near the pancreas, and the entire tumour was thus extirpated.

Very little blood was lost during the removal of the tumour; oozing was checked by ligature and pressure. The capsule shrank remarkably. I preferred neither to sew it nor to drain the connective tissue behind it. The large and small intestines fell over the area of operation, and when I had applied the deep sutures to the abdominal wound I found that oozing had practically ceased. The abdominal wound was therefore closed without drainage.

The patient did not show any signs of severe shock when she recovered from the anæsthetic, and did well for about twelve hours. Liquor strychninæ, digitalis, and enemata of artificial serum were administered; but only 6 ounces of urine, highly albuminous, were secreted during the first twenty-four hours. Then the suppression became complete, and, after a rise of temperature and pulse, the patient died thirty-eight hours after the operation.

Unfortunately, I was unable to obtain permission for a necropsy. I suspect that some damage was done to important structures in the region of the pancreas. I never saw the left kidney nor anything like its ureter during the whole operation, whilst the right was placed abnormally low down, and was deeply congested, so as to look like spleen.

Description of the Tumour.—The entire mass weighed 13 pounds 12 ounces, and consisted of two lobes, separated during the operation.

The *right* lobe measured 37 inches at its widest circumference, 13 inches vertically, 11 inches horizontally, and 5 inches antero-posteriorly. Anteriorly it was smooth; posteriorly it had taken the mould of the contiguous abdominal parietes. It was, roughly speaking, fusiform and flattened.

The *left* lobe was shaped like an omega, and was much smaller than the right. It was contorted, but not deeply lobed; the upper part was very firm. In circumference it measured 36 inches, vertically 8 inches, horizontally 11 inches, and antero-posteriorly 4 inches.

Both lobes were mainly made up of fat; there were wide ecchymoses at several points, and the lower part of the left lobe was very

firm. Dr. Lockyer is preparing some sections to ascertain whether there be any sarcomatous elements mixed with the fat.

Fatty tumours of the abdomen may be practically intraperitoneal, and then are usually omental. One of the most remarkable cases is recorded by my colleague, Mr. Meredith.* He styled his report 'A Case of Large Omental Lipoma,' and distinctly stated that 'the intestines lay altogether behind it.' Nevertheless, Terrier, Treves, and Marmaduke Sheild† include this case amongst retroperitoneal lipomata in their writings on that class of growth. Meredith's patient was sixty-two years old, and the omentum fatty tumour weighed 15½ pounds; recovery followed the operation.

I admit that pathologically an omental lipoma is retroperitoneal, but clinically and surgically it is as intraperitoneal as is an ovarian cyst. Mr. William Anderson, in his excellent monograph on the 'Surgery of the Subperitoneal Tissue,'‡ groups together 'retroperitoneal, mesenteric, *omental*, and parametric lipomata.'§ But the surgeon must make a distinction. There can be no doubt how to act when an omental tumour is detected: it should be removed, as Mr. Meredith removed his lipoma. On the other hand, doubts have been expressed as to whether a retroperitoneal lipoma like the present specimen should be removed when exposed at an abdominal operation.

Lennander's case‖ has been repeatedly quoted as though it were clinically and surgically retroperitoneal. The truth is that it was chiefly omental, like Mr. Meredith's, but somewhat more complicated. The patient was a man aged fifty-four, and the tumour was 'an enormous lipoma, which apparently arose from the great omentum. It filled the entire abdominal cavity, and lay *in front* of the small intestine, stomach, and spleen.' But the transverse mesocolon was involved, and on the second day the transverse colon was resected, being gangrenous. An artificial anus remained; it was closing ten months after the operation.

Further researches into the well-known papers on tumours of this kind by Terrillon (*Archives Gén. de Médicine*, vol. xvii., 1886,

* 'A Case of Large Omental Lipoma,' *Trans. Clin. Soc.*, vol. xx., p. 206; also *Lancet*, vol. i., 1887, p. 880.

† 'A Case of Large Solid Tumour removed with Success from the Retroperitoneal Space,' *Med.-Chir. Trans.*, vol. lxxx., p. 211, third paragraph.

‡ *Brit. Med. Journ.*, vol. ii., 1896, p. 1087.

§ *Ibid.*, p. 1091, paragraph headed 'Lipoma.'

‖ 'Ein Fall von Lipom in der Bauchhöhle,' *Centralbl. f. Chirurgie*, vol. xxii., 1895, p. 97, an abstract by the author from the original report in the *Upsala Läkareförenings Förhandlingar*, vol. xxx., which I have not been able to procure.

Reynolds & Wadsworth: Retroperitoneal Perirenal Lipoma. Annals of Surgery July 1906. x Wadsworth

R. Proust & A. Trèves "Contribution à l'Étude des lipomes rétropéritonéaux". Revue de Gyn. et de Chir. Jan-Feb. 1908. p. 93. 89 Cases

Parietal	14
Circumrenal	38
Mesenteric	37
	89

(Compare our case of 32. 1½ lb, parietal, right iliac region, running down under Poupart's ligament. Branches of anterior crural nerve damaged by pressure forceps. A year later there was partial atrophy of anterior muscles of right thigh)

pp. 257 and 434) and Terrier, presently to be quoted, make me doubt whether an entirely retroperitoneal lipoma like this specimen which I exhibit has been successfully removed, save in one or two instances. Terrillon describes them as lipomas of the mesentery. He quotes Péan's case (from a *note incomplète*, let it be remembered), where a fatty tumour weighing 55 pounds was successfully enucleated from a mesentery of a woman three months pregnant. It was attached by a fibrous pedicle to the periosteum of the bodies of the vertebræ, but in my case there was no trace of any pedicle. Madelung's tumour, successfully removed, resembled mine, a prolongation reaching as high as the liver. A piece of jejunum close to the duodenum had to be resected, being inextricably mixed up with a process of the tumour. Homans* operated on two cases like my own, but even larger (one 57 pounds, the other 35 pounds); both died close on the operation.

Surgically we must put aside Sir F. Treves' case,† where he simply enucleated a fatty tumour from the broad ligament, removing the ovary and Fallopian tube, which were stretched over it as though it were a parovarian cyst. Pathologically, as in Meredith's case, the lipoma was retroperitoneal, but surgically it was unlike the specimen now exhibited.

In respect to the purely pathological homology of a broad ligament tumour and a retroperitoneal lipoma, it is instructive to note that in thirty-nine cases of fibroid of the broad ligament which I tabulated a few years ago‡ a kidney was displaced in one, where Billroth enucleated a very heavy fibroma, and removed the displaced kidney as well; whilst in the small number of cases of true retroperitoneal lipomata which have been recorded, one—that is to say, the case which I report—is remarkable for the fact that a kidney was displaced. There is, possibly, some teratological element associated with these tumours.

The literature of the subject shows the dangers of second-hand quotations, which in this case would, on the authority of Anderson, Terrier, and others, lead us to class Meredith and Lennander's cases, as well as Treves', with examples of absolutely retroperitoneal tumours like that which I now exhibit.

Let us, then, separate and lay aside for the present omental and

* 'On Two Cases of Removal of Immense Fatty Tumours by Abdominal Section,' *Lancet*, vol. i., 1883, p. 449.

† 'A Case of Lipoma of the Broad Ligament,' *Trans. Clin. Soc.*, vol. xxvi., 1893, p. 101.

‡ 'Fibroid of the Broad Ligament,' *Trans. Obstet. Soc. Lond.*, vol. xli., 1899, p. 188. Billroth's case is No. 7 in the tables.

broad ligament tumours, and confine ourselves to the type illustrated by this specimen, where there is a big fatty tumour entirely behind the abdominal viscera. I have already referred to Homans', Péan's, and Madelung's cases, the latter two appearing to be the sole genuine cases of successful removal, though there is some doubt as to Péan's case being absolutely retroperitoneal.

One of the most often quoted examples is Mr. Pickering Pick's 'Enormous Fatty Tumour of the Abdomen' (*Trans. Path. Soc.*, vol. xx., p. 337), with a drawing. It weighed 29¾ pounds; the patient was a man aged thirty-six. The drawing, taken at the post-mortem, shows the relations perfectly, as do the sketches in Terrier and Guillemain's valuable article* on this kind of tumour. Terrier's case thus illustrated was that of a woman aged forty. He explored and found the tumour strongly adherent to the anterior parietes, and far too extensive posteriorly and superiorly to allow of removal. The patient died of intestinal obstruction on the eighth day. Terrier explored the abdomen in another case; the patient was a woman aged fifty-five. He found an enormous fatty tumour occupying the mesentery and the omentum. This fact is interesting. In my own case the omentum was small and thin. Terrier did not attempt to remove the tumour. This exploratory operation was performed in March, 1889. Over three years later the patient was in good health. "The operation," observes Terrier, "seems to have checked its growth."

The results of removal of a true retroperitoneal lipoma of any size have been unsatisfactory, as the records published by the authorities to whom I have referred plainly show. Anderson reminded us that in seven cases the operation had been fatal, mostly from shock, but in two from intractable diarrhœa,† possibly set up from nutritive disturbance in the portion of the intestinal canal interfered with during the removal of the growth. Anderson believed that progress in asepsis, etc., would make results less discouraging in future, but doubted whether in the diffuse forms the good result of excision would always be permanent.

Asepsis, however, is no defence against damage to large vessels and other important structures in the posterior part of the abdominal cavity during their separation from adhesions to dense fat in the adjacent part of the tumour. Other injuries may be inflicted before the operator is aware of them. I found the enucleation of the

* 'Note sur les Lipomes Rétropéritoneaux,' *Revue de Chirurgie*, vol. xii., 1892, p. 747.

† See Terrillon's case, *loc. cit.* p. 260 (death thirty-eighth day).

anterior part of the tumour easy, and felt bound to proceed further. But with the consequent further experience I shall not in future attempt the extirpation of a completely retroperitoneal tumour. Terrier and Guillemain are right when they lay down a rule that an exploratory operation should be performed, and then the surgeon should not proceed further if the volume of the tumour and its relations to intestine, etc., show that total extirpation as a reasonably safe procedure is not possible. The abdominal wound must be closed, and then, as in one of their own cases, the tumour may cease to grow.

Retroperitoneal Lipoma

Johnstone, R. J. (M.B. F.R.C.S.) A case of Retroperitoneal Fibrolipoma: Opⁿ: Recovery. B.M.J. II. 1905, p. 1454 & id. Recurrence of Retroperitoneal Lipoma (sic). Operation. Recovery. ib. II 1907. p. 950: typical lipoma no sarcomatous elements

Mr Cairns Forsyth informed me at a meeting of the West Lond M-C. Society, Feb 5, 1910 that a surgeon in Leeds removed a fatty tumour from the groin, then an abdominal tumour developed & the abdomen was opened; the tumour was a lipoma & the corresponding kidney was absent

Mr Adam Eccles "Retro-peritoneal myxo lipoma weighing 19 lb 11 oz". West Lond Med Chir Soc. Feb 5/10 See W. Lond Med. Journ. April 1910. p 142.