IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 14, Issue 8 Ver. I (Aug. 2015), PP 76-79
www.iosrjournals.org

A 5kg intraperitoneal & Retroperitoneal liposarcoma.- Case Report

S.S.Gurvinder[1], G.R. Syed Ibrahim[2], R. Lewellyn[3].
[1] *Medical Officer, Department of General Surgery, Hospital Teluk Intan.*
[2] *Surgeon, Department of General Surgery, Hospital Teluk Intan.*
[3] *Consultant Surgeon, Department of General Surgery, Hospital Teluk Intan.*

Abstract: *"Liposarcoma" this aggressive sounding word projects to a spectrum of neoplasm that ranges from lesions that are fundamentally benign to those that are malignant. There is no proper literature on incidence of liposarcoma in Asian countries but on a whole, it is one of the commonest soft tissue tumours. It accounts for approximately 20 – 25% of adult soft tissue sarcoma with its predisposition towards males and a peak onset of age between 50 and 70 years of life[1]. We were greeted by a 55 year old Malay man whom was initially operated in another hospital for a retroperitoneal liposarcoma with duodenal metastatic nodule in September 2012. He was operated again in February 2014 and June 2015 respectively for recurrences of the tumour*
Keyword*: Liposarcoma, Recurrent, Soft tissue Sarcoma, Retroperitoneal.*

I. Introduction

As depicted earlier in the abstract, liposarcoma is not a stranger to the surgeons' eye in this century of time. In relation to other tumours, soft tissue sarcoma still remains a minority. There are almost 50 histological types of soft tissue sarcoma and liposarcoma makes up to 9.8% to 18% of the soft tissue sarcoma family[2]. Most of the patient present to clinicians as an incidental finding or the sheer size of the tumour causes compressive symptoms to the adjacent structure as the special feature of liposarcoma is its tendency to occur in visceral spaces, particularly that of the retroperitoneal cavity as 1/3 may occur in this location[2] . Though a mass may be appreciated, it's usually found later as retroperitoneal space can harbour a rather huge change in dimension space allowing the tumour to grow.

II. Case Report

This 55 year old man had initially in 2012 visited a clinician for a rather different medical issue and on examination had noted a vague abdominal mass who then subjected the patient to a tertiary centre for further evaluation and management. In September 2012, this patient underwent a laprotomy and excision of retroperitoneal liposarcoma and introperatively noticed that there was duodenal nodule involvement. Post surgery he was referred for neoadjuvant therapy but patient refused, was put on surveillance and eventually defaulted follow up.

He then presented to our hospital in January 2014 for a 2 months history of generalize abdominal pain with loss of weight and appetite. A CT scan was done and found to have a large retroperitoneal mass measuring 23cm X 18cm X 12cm – a tumour excision with postero-gastrojejunostomy was done in February 2014. He was again referred for radiotherapy but still refused and had been put on a 3 monthly follow-up. In November during a routine follow-up, a clinician picked up an 8cm X 8cm abdominal midline mass – a CT was done again and showed a huge mass at right anterior pararenal space mass measuring 8cm X 13cm X 9cm suggestive of high grade liposarcoma and another intraperitoneal mass measuring 10cm X 10cm X 13cm with positive abdomen and pelvic nodes.

The combined effect of these 2 masses has caused difficulty in bowel opening, difficulty in breathing as well as loss of weight and appetite. A third surgery was then planned June 2105. Introperatively only the intraperitoneal mass was removed as it was adherent to small bowel and very vascularised causing profuse amount of blood loss and the retroperitoneal mass excision was abandoned. Patient recovered in ward well and was discharged after 2 weeks and referral to the oncology centre again. The intraperitoneal mass weighed in at 5kg and measured 15cm X 20cm X 15cm in approximation.

III. Discussion

Liposarcoma generally affects those in the age group of 50 to 70 years with a male predominance but have no racial predominance. WHO has classified liposarcoma into well differentiated, myxoid, round cell, pleomorphic and dedifferentiated liposarcoma – summarized in "Table A".

Well-differentiated	Low grade (doesn't metastasize, but may recur locally) Includes atypical lipoma Most common subtype accounting for 50% of liposarcoma. Risk of dedifferentiation
Myxoid	Intermediate grade Commonest type in paediatrics age group Metastatic risk especially in round-cell variant *Includes round-cell variant as its high-grade counterpart
Pleomorphic	High grade Rarest type accounting for 5-10% of liposarcoma High risk of local recurrence and metastasis
Dedifferentiated	High grade sarcoma Most common with retroperitoneal lesions Risk of metastasis

Table A: Compiled from Peterson[2], Enzinger[3], Weiss[4] and Dei Tos[5]

On a presentation note, liposarcoma has a wide array of symptoms and sign. The growth rate of this tumour varies case to case basis, usually this tumour has a very slow growth, and occasionally this tumour goes dormant for months to years then suddenly into a sporadic growth rate[6], until which an when a clinician picks up the mass incidentally or if the mass has become too huge and causes obstructive symptoms which was the presentation of this case where this patient presented with pricking abdominal pain on and off for 2 months, had difficulty in bowel opening, loss of weight and appetite.

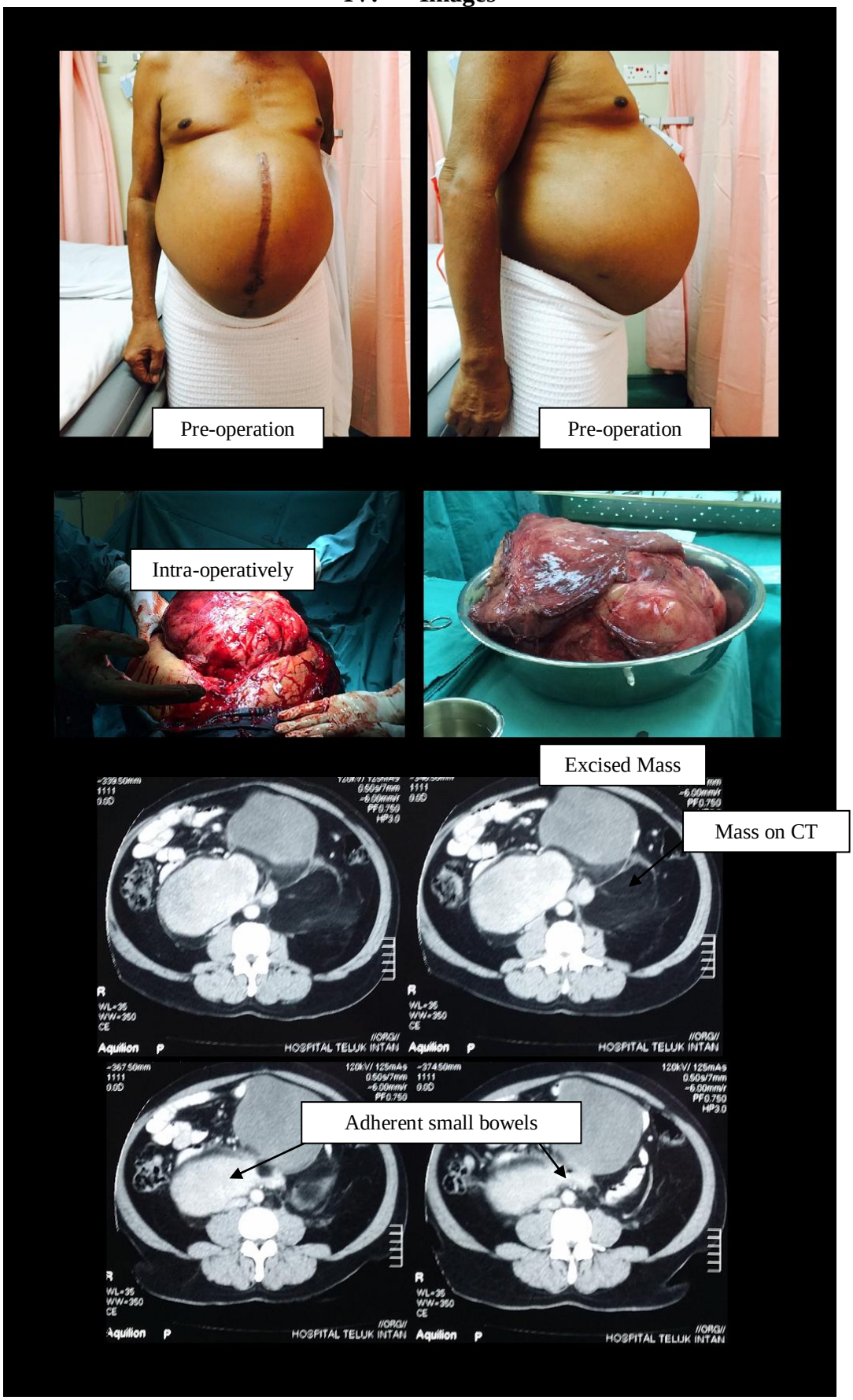
The mainstay of diagnosis is via tissue diagnosis if the tumour is reachable. If it is too deep seated or in the retroperitoneal cavity after a CT scan to look for extent of involvement it is best to assume as malignancy and proceed with a total excision without a preliminary biopsy.

Liposarcoma is, like other soft tissue sarcomas, primarily a surgical disease. The main goal of surgery is to remove the tumour entirely and prevent recurrence added on by radiotherapy. In the early centuries, where radiation was not available, surgical excision was the mainstay of treatment, that too surgeons encounter difficulty as some of the tumours had local invasion to other organs namely intestine, renal vein, and aorta to name a few leading to improper resection and causing recurrence in future.

In the 21st century, where with advancement in the field of medicine, there have been studies with fantastic results where control rates of 85% - 90% achieved with combination of surgery and radiation[7]. Although till today, debate on if radiation should be given preoperative, intra or post operatively is still widely being discussed. Virkus et al in a study suggested that due to the improved oncologic outcome and the drop in incidence of late complication justifies the use of radiation preoperatively[8]. The pros of giving introperative radiation are that a smaller field is exposed to radiation moreover the tumour may shrink in size leading to an easier operative field but patient may encounter surgical wound healing complications. In all, when a patient is treated with surgical and radiation intervention as Zagars et al reports that in well differentiated liposarcoma it is demonstrated that there is less than 10% local recurrence rate, moreover this study also shows that 5 and 10 year survival rate of for well differentiated liposarcoma is 100% and 87% respectively[9].

In a study conducted by Weiss Et.al, tumours in the retroperitoneum recurred in 21 of the 23 diagnosed cases[4]. As is shown in this case report, this patient in the span of last 3 years has 3 separate surgeries done for 3 growths despite the excision of the tumour prior to that. It goes to show surgery is not the one and only mode of treatment needed for this condition once diagnosed. The management of liposarcoma requires a holistic approach with a team of physician, surgeons, medical and radiation oncologist.

IV. Images


Pre-operation
Pre-operation
Intra-operatively
Excised Mass
Mass on CT
Adherent small bowels

References

[1]. Liposarcoma: Incidence and survival rates in England, (n.d.). http://www.ncin.org.uk/publications/data_briefings/liposarcoma_incidence_and_survival_rates_in_england

[2]. Peterson JJ, Kransdorf MJ, Bancroft LW, O'Connor MI. Malignant fatty tumors: classification, clinical course, imaging appearance and treatment. Skeletal Radiology 2003; 32: pp 493-503.

[3]. Enzinger FM and Weiss SW eds. Liposarcoma. In Soft Tissue Tumors, Third Edition. St. Louis, 1995, Mosby, pp 431-66.

[4]. Weiss SW, Rao VK. Well-differentiated liposarcoma (atypical lipoma) of the deep soft tissues of the extremities, retroperitoneum and miscellaneous sites: a follow-up study of 92 cases with analysis of "dedifferentiation." Am J Surg Pathol 1992; 16: pp 1051-1058

[5]. Dei Tos AP. Liposarcoma: new entities and evolving concepts. Ann Dian Pathol 2000; 4: pp 252-266.

[6]. Pack, G. T. and Pierson, J. C.: Liposarcoma. A Study of 105 Cases. Surgery, 36:687-712, 1954.

[7]. Spiro IJ, Gebhardt MC, Jennings C et al. Prognostic factors for local control of sarcomas of the soft tissues managed by radiation and surgery. Seminars in Oncology 1997; 24(5): pp 540-546.

[8]. Virkus WW, Mollabashy A, Reith JD et al. Preoperative radiotherapy in the treatment of soft tissue sarcomas. CORR 2002; 397: pp 177-189

[9]. Zagars GK, Goswitz MS and Pollack A. Liposarcoma: Outcome and prognostic factors following conservation surgery and radiation therapy. Int. J. Radiation Oncology Biol. Phys. 1996; 36(2): pp 311-319.