



A CASE REPORT AND LITERATURE REVIEW OF A HUGE RETROPERITONEAL LIPOSARCOMA

General Surgery

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ABSTRACT

Liposarcoma is the most common retroperitoneal soft tissue sarcoma. It is non capsulated, fast growing tumour which is diagnosed late, so presents as huge masses. Preoperative diagnosis is aided by CT scan. Primary treatment is surgery. Recurrence is common, so patient needs to be followed up. A case of 40 years old male is discussed with huge retroperitoneal sarcoma invading into transverse colon and compressing middle colic vessels which was managed by surgery with good outcome.

KEYWORDS

liposarcoma, retroperitoneal, sarcoma

INTRODUCTION

Liposarcoma is the most common retroperitoneal soft tissue sarcoma [1]. It is a fast growing tumour and presents with no or only non-specific symptoms so, it becomes difficult to detect it early [2]. But regardless of the size, surgery is the primary treatment modality. Liposarcoma has better prognosis than other sarcoma. Chemotherapy and radiotherapy have been used as an adjunct treatment but its role is controversial as it has not proven to increase the survival.

CASE REPORT

A 40 years old male patient presented to AIIMS outdoor, Delhi, with chief complaints of lump abdomen and occasional vomiting and weight loss since 1 year.

On examination, patient was cachexic, pre-operative weight was 50 kgs. Muscle wasting was present although patient was able to walk. On per abdominal examination, there was a large lump of 45 cm × 38 cm present all over the abdomen, there was no skin involvement. No dilated veins were visible.

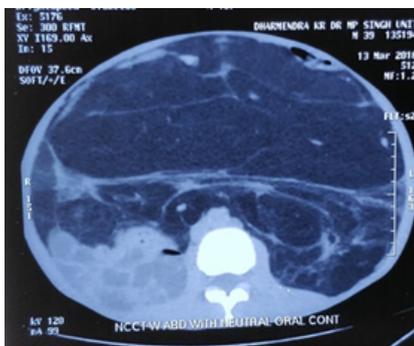


Fig 1: CT abdomen section

All the routine investigations were within normal limits. Preoperative ultrasonography guided trucut biopsy showed mature adipocytes and focal fibrocollagenous tissue. CT abdomen and pelvis showed features suggestive of large mesenteric lipoma involving almost entire abdominal cavity with evidence of sarcomatous changes. Patient was posted for exploratory laprotomy. Midline Incision was taken, large mass was seen pushing the transverse colon and it's thinned out mesentery anteriorly. Tumour encased the middle colic artery, pushing the small bowel toward the right paracolic gutter. Tumour was adhered to left kidney. Dissection was done using harmonic scalpel, preserving all the vital structures. Tumour weight was 10.4kg. Mesenteric defect was closed and abdomen was closed in layers. On histopathology it

was a well circumscribed and lobulated mass measuring 40cm × 35cm × 19 cm which was well differentiated retroperitoneal liposarcoma, immuno-positive for CD34 and S-100.



Fig 2: Specimen weighing 10.4 kgs

Post-operative course was uneventful and patient was allowed to take orally from post-operative day 2. Patient was discharged on post-operative day 4 and was followed up after 15 days post-surgery. Patient had regained weight of 4 kgs. Appetite has also improved. Patient will be followed up for 1 year for any recurrence or metastasis.

DISCUSSION

Annual incidence of sarcoma is 0.8% of all the newly diagnosed malignancy, from which liposarcoma constitutes of 20% out of which 13% are retroperitoneal [3]. Most common site of liposarcoma is extremities 56% followed by retroperitoneal 15-20%, other more common site is inguinal region.

Liposarcoma is a malignant tumor of mesenchymal origin in which tumour differentiates into adipose tissue. Maximum incidence is found in the age group of 40-70 years [4].

WHO classification of retroperitoneal liposarcoma has 5 subtypes-

well differentiated, de-differentiated, myxoid cell, pleomorphic and mixed type [5].

These are fast growing tumours as they don't have the capsule. Routinely diagnosis is made by USG which helps in de-lineating location, size, type, number of tumours; also the investigation is non-invasive and cheap. CT abdomen specifies if there is any organ involvement, or any local metastasis if present and gives a better anatomical de-lineation [6].

Surgery is only modality known to increase survival. Mortality is mainly because of local recurrence. A prospective study of 500 patients with retroperitoneal sarcoma was done which concluded that median survival decreased in local recurrence than in primary disease [7]. It is reported that 5 yr survival in well differentiated is 90% for de-differentiated 75%, myxoid round cell 60% and pleomorphic is 50% [8].

More than 20% of the tumours are > 10cm at the time of diagnosis [7]. Yol et al reported liposarcoma of 42 kgs [9].

Perioperative mortality rate is nearly 4% due to complications like bleeding sepsis, myocardial infarction, basal atelectatic lung due to huge mass causing retention of secretions.

Complete resection is most important regardless of size or organ involvement. However to determine the usefulness of radiotherapy randomized controlled trial will be needed. Most effective drug for chemotherapy is doxorubicin.

Only drug which is approved for treatment of non-resectable or metastatic liposarcoma Eribulin-mesylate (halaven) [10]. To conclude, liposarcoma is primarily treated by surgery inspite of very large size or presence of organ involvement. By careful dissection, we can avoid additional surgical procedures and reduce the morbidity.

CONFLICTS OF INTEREST

The authors have nothing to disclose.

REFERENCES

1. Perez EA, Gutierrez JC, Moffat FL Jr, Franceschi D, Livingstone AS, Spector SA, et al. Retroperitoneal and truncal sarcomas: prognosis depends upon type not location. *Ann Surg Oncol* 2007; 14:1114-22.
2. Seo IY, Won HS, Kim JS, Kim HS, Rim JS. A case of recurrent liposarcoma in retroperitoneum. *Korean J Urol* 1994; 35:1375-8.
3. Han HH1, Choi KH, Kim DS, Jeong WJ, Yang SC, Jang SJ, Choi JJ, Han WK. Retroperitoneal giant liposarcoma. *Korean J Urol*. 2010 Aug; 51(8): 579-582. Published online 2010 Aug 18.
4. Oh SE, Kim HJ, Choi SJ, Oh SY, Roh CR and Kim JH: A case of huge retroperitoneal liposarcoma in pregnancy. *Obstet Gynecol Sci* 57: 236-239, 2014.
5. Caizzone A, Saladino E, Fleres F, Paviglianiti C, Iaropoli F, Mazzeo C, Cucinotta E and Macri A: Giant retroperitoneal liposarcoma: Case report and review of the literature. *Int J Surg Case Rep* 9:23-22, 2015.
6. McCallum OJ, Burke JJ 2nd, Childs AJ, Ferro A, Gallup DG. Retroperitoneal liposarcoma weighing over one hundred pounds with review of the literature. *Gynecol Oncol* 2006; 103:1152-4.
7. Lewis JJ, Leung D, Woodruff JM, Brennan MF. Retroperitoneal soft-tissue sarcoma: analysis of 500 patients treated and followed at a single institution. *Ann Surg* 1998; 228:355-65.
8. Choi EH, Yoon JB. Retroperitoneal liposarcoma (pleomorphic type): a case report. *Korean J Urol* 1996; 37:1187-90.
9. Yol S, Tavli S, Tavli L, Belviranli M, Yosunkaya A. Retroperitoneal and scrotal giant liposarcoma: report of a case. *Surg Today* 1998; 28:339-42.
10. Aschenbrenner DS: The first drug to improve survival in liposarcoma. *Am J Nurs* 116: 24, 2016.