International Surgery Journal
Chaudhari S et al. Int Surg J. 2022 Aug;9(8):1483-1485
http://www.ijsurgery.com
pISSN 2349-3305 | eISSN 2349-2902

DOI: https://dx.doi.org/10.18203/2349-2902.isj20221905

Case Report

A case report on large retroperitoneal liposarcoma

Sandipkumar Chaudhari[1]*, Brijesh Patel[1], Jimitkumar Patel[1], Sonalben Chaudhary[2]

[1]Department of Surgery, [2]Department of Critical Care, Safal Multispeciality Hospital, Mehsana, Gujarat, India

Received: 27 May 2022
Accepted: 29 June 2022

***Correspondence:**
Dr. Sandipkumar Chaudhari,
E-mail: drsandy253@gmail.com

ABSTRACT

Even though rare, retroperitoneal masses evoke interest for so many reasons. They involve a wide variety of tumor types, both malignant and benign, making the diagnosis a challenge. Many tumor types have different clinical behaviors and treatments. Surgical resection is always challenging technically with no fixed steps of resection. The <1% of neoplasms are soft tissue sarcomas in humans. Liposarcoma is the most common retroperitoneal sarcoma among the retroperitoneal malignant tumors. More often than not, patients report late to the hospital due to the very slow growth and the onset of a few late symptoms, patients usually present at a late stage to the health care. Therefore, in most cases, the tumor is known to have reached enormous sizes and might have infiltrated vital structures. Here, we reported a case of large retroperitoneal liposarcoma weighing more than 8 kgs.

Keywords: Liposarcoma, Tumor, Myxoid, Excision, Biopsy

INTRODUCTION

As a single group, non-organocentric retroperitoneal sarcomas form the largest group of malignant masses of retroperitoneum and consist of various types of soft tissue sarcomas, the most common being liposarcoma, leiomyosarcoma and malignant fibrous histiocytoma. The incidence of malignancy among different retroperitoneal tumors in various case series is around 30-75%. Liposarcomas are generally present at diverse locations, such as upper and lower extremities, trunk, head and neck, retroperitoneum and mediastinum. The peak incidence is in the age group of 50-70 years. Well-differentiated liposarcoma is the most common histological subtype encountered.[1]

CASE REPORT

We reported a case of a 32-year-old gentleman who presented with chief complaints of insidious onset, painless progressive distension of abdomen for 3 years. There was a history of early satiety, fullness in left flank, altered bowel habit for a period of 3 months. He had no complaints of chest pain, difficulty in breathing, hemoptysis, weight loss, black stools and bleeding PR. Family history, past history were not contributory. On examination vitals were normal, abdomen was soft, non-tender, distended with fullness in flanks. A palpable mass occupying the entire left half of abdomen (left hypochondrium, left lumbar, and left iliac fossa), also the umbilical region and crossing midline to right lumber region. There was no clinical evidence of ascites. Rest of systemic examination was normal and a retroperitoneal lump was suspected from above mentioned findings.

Lab investigations including hematological and CMP were within normal limits. CECT abdomen showed a large well defined lobulated soft tissue density space-occupying mass lesion involving the retroperitoneum predominant on the left side in posterior para renal space with extension into the left anterior Para renal space with significant mass effects resulting in anterior and right lateral displacement of the pancreatic head, body, stomach, duodenal loops and mesenteric vessels as well as aorta right laterally (Figure 1). The lesion was also seen abutting the left lobe of the liver in sub-hepatic space with the preserved fat plane. The mass lesion also was also seen extending from the left sub-hepatic space

to the upper margin of the pelvis. Displacement of small and large bowel loops anteriorly seen. The left kidney appears to be displaced on the right side with changes in the axis of the displaced kidney without invasion (Figure 2). CT chest was normal and CT-guided biopsy revealed it to be a spindle cell neoplasm (sarcoma).

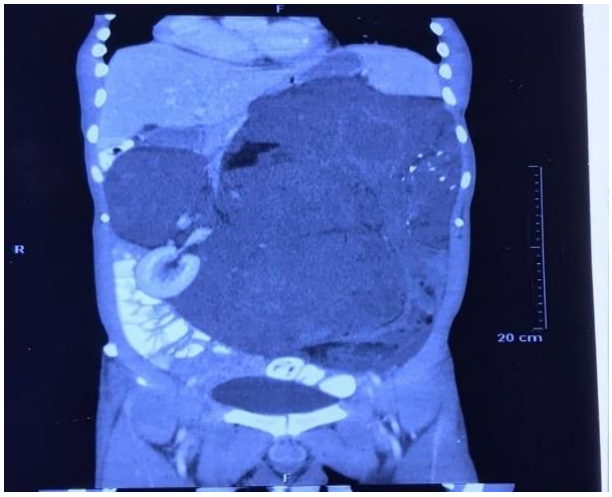

Figure 1: Coronal section of CT abdomen-a -mass displacing left kidney.

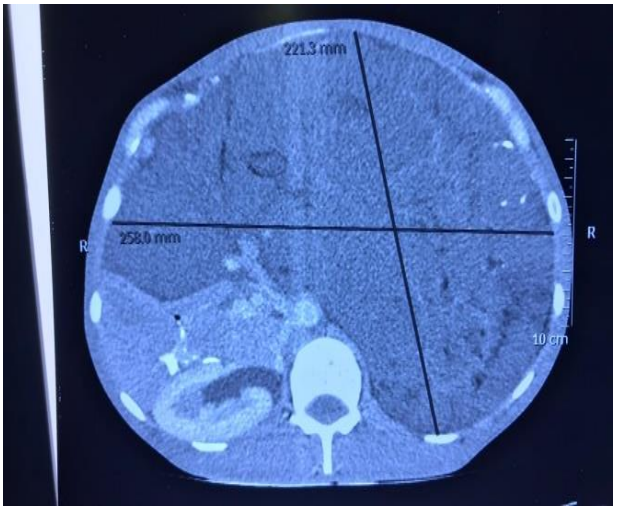

Figure 2: CECT axial section-a large retroperitoneal showing a large retroperitoneal mass.

Midline laparotomy incision was used for approach, the descending colon was present across the midline due to being pushed by the large mass lesion, and the mass had been seen occupying the entire left half of the abdomen. Extensions of the mass had also been noted in the right lumbar region and RIF. Mass lesion was well encapsulated and not seen involving any vital structures. Complete and meticulous resection of the mass lesion weighting 8.25 kgs was performed. Histopathology examination of the specimen showed well encapsulated, well-differentiated liposarcoma with myxoid changes without any cystic changes, hemorrhage or calcification (Figure 3 A and B).

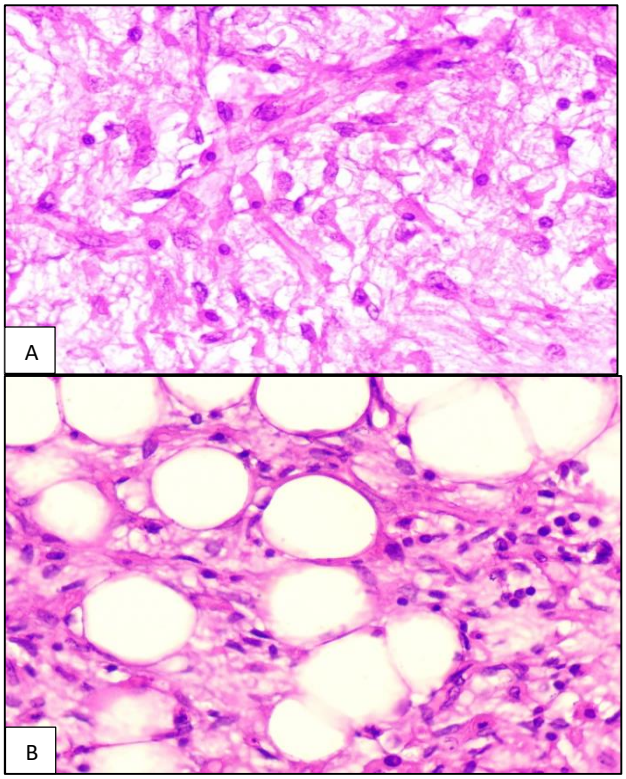

Figure 3 (A and B): Liposarcoma with myxoid changes on histopathology.

The postop recovery was smooth and patient discharged on the 3rd postoperative day. Patient had been followed with annual CT abdomen and CXR (PA) till 4 years after resection and no recurrence had been noted to date. No other adjuvant treatment had been given to patient.

DISCUSSION

On histopathology examination of retroperitoneal sarcoma, liposarcoma is the most frequent type of tumor, present in more than 1/3 of cases.

Table 1: Classification of soft tissue sarcomas.

Organ of origin	Benign	Malignant
Adipose tissue	Lipoma, angiomyoma	Liposarcoma
Smooth muscle	leiomyoma	Leiomyosarcoma
Skeletal muscle	Rhabdomyoma	Rhabdomyosarcoma
Vascular	Hemangioma	Angiosarcoma
Fibrous tissue	Fibroma	Fibro sarcoma
Fibro-histiocyte origin	Fibro histiocytic tumor	Malignant fibrous histiocytoma
Uncertain origin	Intramuscular myoma	Extra-skeletal Ewing's sarcoma

Based on morphology and cytological features liposarcoma can be divided into four subgroups: well-differentiated, poorly differentiated, pleomorphic and myxoid/round cell.[2]

Extremities are the most common sites for liposarcomas (>50% cases) followed by the retroperitoneum and inguinal region.[3-5] Symptoms appeared late and non-specific. As a result, at a diagnosis the tumors were very large, the average size of the tumor in most series being over 10 cm. Herrera-Gomez et al have reported a case of giant liposarcoma weighing 18 kg. Most tumors presented with vague complaints like visible protuberance of the abdomen, palpable abdominal mass, abdominal pain or dragging back pain and weight loss. Pain or edema of the lower extremities and bowel involvement were features of advanced lesions. The peak incidence of the sarcoma can be seen in the fifth decade without any sex predilection. Irregular margins, absence of calcification, size over 10 cm, presence of cystic degeneration and presence of necrosis were usually an indicator of a malignant mass. CT scan of the abdomen was the primary investigation to assess the location and contiguous spread of the lesion. Radical excision of tumors remained the modality of choice.[6] The kidney was the most common organ which may need to be resected while performing continuous visceral resection. The site of origin of the lesion, the size, the depth, proximity to lymph nodes and the differentiation were the major prognostic factors.[7] Well-differentiated lesions and lesions with myxoid morphology had a good prognosis with a low incidence of metastasis.[8]

CONCLUSION

Liposarcoma is the most common retroperitoneal sarcoma. Due to the slow growth of the lesion, most tumors present in late-stage with an average size >10 cm. A lesion with favorable histology and without evidence of invasion of vital structure usually carries a good prognosis.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Kilkenny JW 3rd, Bland KI, Copeland EM 3rd. Retroperitoneal sarcoma: the University of Florida experience. J Am Coll Surg. 1996;182(4):329-39.
2. Samuel S. Histologic subtype and margin of resection predict pattern of recurrence and survival for retroperitoneal liposarcoma. Ann Surg. 2003;238(3):358-70.
3. Herrera-Gómez Á, Ortega-Gutiérrez C, Betancourt AM. Giant retroperitoneal liposarcoma. World J Surg Onc. 2008;6:115.
4. Wei-Dong Z. Management of retroperitoneal liposarcoma: A case report and review of the literature. Oncol Letters. 2015;10(1):405-9.
5. Inoue K, Higaki Y, Yoshida H. Giant retroperitoneal liposarcoma. Int J Urol. 2005;12(2):220-22.
6. Hassan I, Park SZ, Donohue JH, Nagorney DM, Kay PA, Nasciemento AG et al. Operative management of primary retroperitoneal sarcomas: a reappraisal of an institutional experience. Ann Surg. 2004;239(2):244-50.
7. Russell WO, Cohen J, Enzinger F, Hajdu SI, Heise H, Martin RG, Meissner W, Miller WT, Schmitz RL, Suit HD. A clinical and pathological staging system for soft tissue sarcomas. Cancer. 1977;40(4):1562-70.
8. McGrath PC, Neifeld JP, Lawrence W Jr, DeMay RM, Kay S, Horsley JS 3rd et al. Improved survival following complete excision of retroperitoneal sarcomas. Ann Surg. 1984;200(2):200-4.

Cite this article as: Chaudhari S, Patel B, Patel J, Chaudhary S. A case report on large retroperitoneal liposarcoma. Int Surg J 2022;9:1483-5.