Giant Retroperitoneal Liposarcoma of Gerota’s Fascia

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ABSTRACT
Soft tissue sarcomas are rare and commonly develop in retroperitoneum. Liposarcoma is the most common amongst it. Liposarcoma accounts for at least 20% of all sarcomas in adults and up to 50% of all retroperitoneal sarcomas. Here we present a case of a giant retroperitoneal liposarcoma arising from Gerota’s fascia of right kidney along with brief review of literature.

INTRODUCTION
Soft tissue sarcoma (STS) accounts for <1% of all malignant tumors in adults.1,2 About 10–15% of them are retroperitoneal1. Liposarcoma is the most common variant and accounts for 20% of all STS, and upto 50% of retroperitoneal sarcomas3. The natural behavior and outcome of retroperitoneal liposarcomas (RLS) are dependent of the age of the patient, anatomical site, depth, size, and resectability of the tumor, as well as of histology, grade, nodal disease, and distant metastasis2. RLS also carries high incidence of recurrence so demands complete excision.

CASE REPORT
A 75 years old female presented with lump in the right side of abdomen since 5 months which was gradually increasing in size. Patient also had complaint of fullness and discomfort in abdomen but no history of pain.
Abdominal examination revealed a large lump occupying right iliac fossa, right lumbar and right hypochondrium. It was firm, mobile, lobulated, nontender and was occupying entire right quadrant of abdomen.
On investigations, ultrasonography (USG) was suggestive of illdefined heterogenously enhancing mass 22x 15 x 15 cm in size extending from right hypochondrium to the pelvis most likely retroperitoneal sarcoma. Computed tomography (CT) scan with contrast was suggestive of large multiloculated mass in the right retroperitoneal region occupying entire right side of the abdomen measuring 27 x 20 x 14cm, displacing bowel loops inferiorly and to the left and right kidney anteriorly. Fat planes were well maintained with
surrounding structures (Fig.1a & 1b).
USG guided biopsy was taken and sample sent for histopathological analysis. It showed well differentiated liposarcoma.
Patient was operated with en bloc excision of tumour through right retroperitoneal approach. It was found to be arising from posterior aspect of gerota’s fascia of right kidney (Fig.2). It was remove in toto along with complete excision of gerota's fascia. Right kidney was found to be free and was preserved. Specimen was sent for histopathology report (Fig.3).
Histopathology report was suggestive of low grade well differentiated liposarcoma arising from gerota's fascia. Margins were negative. Follow up of 1 year has shown patient to be symptom and disease free.

DISCUSSION
Retroperitoneal liposarcoma (RLS) are the malignant neoplasm of mesenchyma of retroperitoneum. The overall incidence of these tumours is 0.3-0.4% per 100000 population. Most commonly encountered histologic subtype of retroperitoneal sarcomas are liposarcoma(41%), leimyosarcoma(28%), fibrosarcoma(6%).
The etiology of these tumours seems to be genetic predisposition and exposure to inonizing radiation and history of systemic radiotherapy treatment. It often carries poor prognosis. Because of its rarity,complex anatomical location, size, fast
growing nature, local aggressiveness, these tumours are difficult to tackle. Even after complete excision these tumours are common to recur. That is why these patients need long term follow up. Recurrence & contiguous organ involvement are the causes for death of these patients.

In case reports mentioned in literature majority are male patients above 50 years age group. In present case, patient was 75 years old female having only complaint of right abdominal lump. There was no history of exposure to radiation.

In retroperitoneal liposarcoma, histological subtype, incomplete resection, contiguous organ resection, and older age are strongly associated with tumor-related mortality. It is necessary to individualise the treatment strategy. Currently chemotherapy for retroperitoneal soft-tissue sarcomas is not found to be effective, and radiotherapy showed limited efficacy due to the toxicity affecting adjacent intra-abdominal structures. Hence nowadays, complete surgical resection remains the most important predictor of local recurrence and overall survival.

In present case, investigations revealed it to be retroperitoneal liposarcoma. Intraoperatively it was found to be arising from Gerota's fascia of right kidney. It was not involving the kidney, so complete excision of tumour was done without nephrectomy. Patient is symptom & disease free over follow up of 1 year.

Few case reports have been presented of perinephric RLS in literature. Few of them were managed with total excision of RLS with nephrectomy and few without nephrectomy.

Salemis & Tsiambas et al\textsuperscript{8} presented a case of giant retroperitoneal liposarcoma with mixed histological pattern of right perinephric space and radical nephrectomy with right salpingo-oophorectomy were necessary to achieve complete excision in their 54 years old female patient. Funahashi et al\textsuperscript{9} reported a case of 66 years old male with RLS, diagnosed during gall bladder stone examination. Patient underwent surgical excision of the tumour with concomitant resection of right kidney and adrenal gland. Hamano & Yamashita et al\textsuperscript{10} reported 2 cases of RLS arisen from perirenal fat tissue which could not be diagnosed preoperatively and both were male patients of 58 & 70 years old respectively who underwent left nephrectomy along with excision of RLS. Dalpiaz & Gidao et al\textsuperscript{11} presented a case report of laparoscopic removal of retroperitoneal liposarcoma arising from Gerota's fascia without nephrectomy.

We can preserve the kidney in cases where kidney is not involved with complete excision of perinephric fat with RLS.

REFERENCES
8. Salemis NS, Tsiambas E, Karameris A, Tsohataridis E. Giant retroperitoneal liposarcoma with mixed histological pattern:

