Case Report

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Intraperitoneal liposarcoma: a rare presentation

Gokul Rajendran*, Saichaithanya Kapuluru, Durganna Thimmappa

Department of General Surgery, Rajarajeshwari Medical College and Hospital, Bengaluru, Karnataka, India

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*Correspondence: Dr. Gokul Rajendran, E-mail: gorajith@gmail.com

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ABSTRACT

Liposarcoma are frequently seen in the retroperitoneum. It is of four types pathologically: Well-differentiated, dedifferentiated, myxoid and pleomorphic. Well-differentiated is the most common type. Dedifferentiated has the worst prognosis. Reports of Liposarcoma arising from the intraperitoneal sites such as stomach, omentum, mesentery and sigmoid mesocolon are rare. A 47 year old gentleman presented with pain in abdomen and abdominal distention, had a provisional diagnosis of GIST, intra-peritoneal liposarcoma. Imaging revealed a well-defined encapsulated abdominal mass indicative of liposarcoma with fibrous differentiation/fibro-lipoma. On surgery a well encapsulated mass was excised completely arising from the greater curvature of stomach. The mass on histopathological examination indicated features suggestive of liposarcoma (well-differentiated) with IHC markers positive for S100, CDK4 and MDM2. A diagnosis of intraperitoneal liposarcoma form greater curvature of stomach was made. This was an exceedingly rare presentation of liposarcoma arising from the greater curvature of stomach with differential diagnosis of GIST which was ruled out with histopathological features and negative CD117 and CD34. Thus to conclude liposarcoma being quite common retroperitoneal tumor, has an exceedingly rare occurrence from intraperitoneal sites and should be taken as an exceedingly rare differential diagnosis for mass per abdomen.

Keywords: Liposarcoma, Intraperitoneal, Rare, Stomach

INTRODUCTION

Liposarcoma is one of the most frequent malignant soft tissue tumors and represents 45% of all retroperitoneal sarcoma. It is composed of different histologic varieties: well-differentiated/atypical lipomatous tumor, dedifferentiated, pleomorphic and myxoid, listed in order of decreasing frequency. ^{1,5} Dedifferentiated has worse prognosis than well-differentiated liposarcoma. ^{1,2} Well-differentiated is the most common variant. ³ Well-differentiated liposarcoma arises at similar frequency in the retroperitoneum and the limbs. The spermatic-cord, mediastinum and head and neck region are relatively fewer common locations. ⁴ Reports of liposarcoma arising from omentum, mesentery and intestine are rare.

CASE REPORT

A 47 year old gentleman came to hospital with average built and nourishment presented with complaints of distension of abdomen and pain abdomen for 6 months and 4 months, respectively. Pain in the upper abdominal region, insidious onset, gradually progressive, initially in the upper abdomen radiating to the central abdominal region, dull aching type, mild to moderate intensity, intermittent. On initial evaluation all his vitals were stable. Abdomen showed fullness in all quadrants, equal movement in all the quadrants with respiration, with a palpatory solitary oval shaped mass extending from the left hypochondriac to umbilical region with a dull percussive note. Blood investigations were within normal parameters.

Imaging

In the CT abdomen a large well defined encapsulated abdominal mass (34×18×11 cm) predominantly on the left side. Mass shows area of fat density and minimal/non enhancing discrete and confluent areas within. No calcification. Predominant vascular supply and drainage is from the splenic vessels. Mass is abutting the anterior peritoneum with no obvious infiltration. Suspicious loss of fat plane with proximal greater curvature of stomach. Few areas of hyper density within mass. Impression was

liposarcoma with fibrous differentiation/fibro lipoma. (Figure 1).

The patient was planned for exploratory laparotomy. A solitary well encapsulated mass 35×20 cm arising from the greater curvature of the stomach extending till pelvis occupying whole of the abdomen except iliac fossa with vascular adhesion with feeding vessel to the anterior abdominal wall and one vessel from the greater omentum to the posterior surface of the mass. The mass excised in total and sent for histopathological evaluation. (Figure 2).

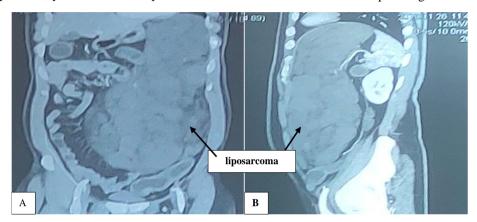


Figure 1: CECT abdomen and pelvis; (a) coronal view, (b) sagittal view.

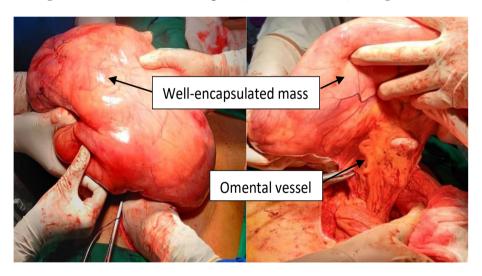


Figure 2: Intra-operative findings.

Histopathological Evaluation

Well encapsulated tumor composed of lobules of predominantly mature adipocytes admixed with benign spindle cells separated by fibro collagenous septae with few uniloculated or multiloculated lipoblast. Mitosis 1~2/10 HPF (Figure 3). Immunohistochemistry marker (Figure 4) is positive, S100, CDK4, MDM2, impression is well-differentiated liposarcoma. Patient was advised yearly follow-up with CT imaging based on the oncologist opinion on the mass being a well-differentiated liposarcoma to check for any recurrences.

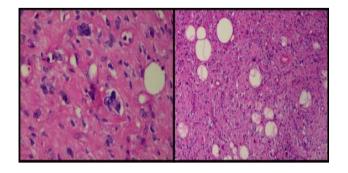


Figure 3: Histopathological evaluation.

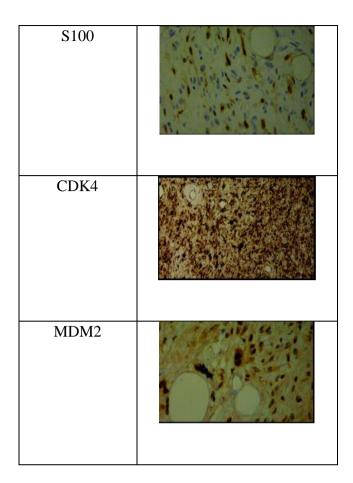


Figure 4: IHC markers.

DISCUSSION

Liposarcoma is the most common retroperitoneal malignant tumor and its origin from intraperitoneal site is exceedingly rare.² Different histological types being well-differentiated, dedifferentiated, pleomorphic and myxoid.²

Based on the clinical presentation and gross appearance of specimen, the differential diagnosis was lipomatous tumor or GIST.

Based on presence of mature adipocytes and lipoblast with IHC marking where S100, CDK4 and MDM2 was positive indicated well-differentiated/de-differentiated type of liposarcoma. The HPE and IHC marker with CD117 and CD34 negative, GIST was ruled out.^{3,5,6}

Reports of liposarcomas arising primarily from intraperitoneal sites such as the stomach and mesentery are common and, omentum and sigmoid mesocolon are rare, with 39 cases arise from the stomach of which 3 are from greater curvature.^{1,7-11}

As per currently available literature, our case becomes the 40th case of liposarcoma arising from the stomach, and the 4th case that is arising from the greater curvature of stomach.

Radical excision of the tumor offers the possibility of longer survival and a disease-free interval. In all patients reviewed in the literature, surgical excision was the first line of treatment of well-differentiated liposarcoma. Regular follow-up is advised, due to increased risk of recurrence at operated site. 12

CONCLUSION

To conclude liposarcoma being quite common retroperitoneal tumor, has an exceedingly rare occurrence site from intraperitoneal sites and should be taken as a rare differential diagnosis for mass per abdomen.

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