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CASE SERIES

Giants Within: A Tale of Two Rare Abdominal Behemoths

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Abstract

Hidden deep within the abdomen, giants can grow in silence—unseen, unfelt, and often undetected until they command attention with mass effect or incidental discovery. We present two such formidable entities: a rare giant adrenal angiomyolipoma and an enormous retroperitoneal liposarcoma—each a pathological paradox, pushing anatomical boundaries and clinical expectations. Their sheer size, silent progression, and rarity challenge diagnostic acumen and surgical dexterity alike. These cases are not mere enlargements of common pathologies; they are singular narratives of stealth, size, and surgical spectacle. Through them, we explore the thin line between benign and malignant, routine and extraordinary in retroperitoneal tumours.

Keywords: angiomyolipoma, retroperitoneal liposarcoma (RPLS), imaging, computed tomography (CT)

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Introduction

Retroperitoneal liposarcoma is a malignant tumor that often presents late due to its deep-seated location and indolent growth [1]. Adrenal angiomyolipoma (AML) is a rare benign tumor, usually discovered incidentally during imaging for unrelated symptoms [2]. Both pose unique diagnostic and management challenges. We present a case series of two distinct and unrelated cases illustrating these rare entities.

Case1

A 61-year-old female presented with a two-year history of progressive abdominal swelling, which had rapidly increased over the past six months, accompanied by abdominal discomfort and exertional dyspnea. She was a known hypothyroid on regular medication. There was no history of prior abdominal surgery. Her bowel and bladder habits remained normal. Obstetric history included a single full-term vaginal delivery 30 years ago.

On examination, she was normotensive and general physical examination was unremarkable. Abdominal examination revealed a massive, generalized distension. Abdomen was soft, cystic and non-tender. Abdomen was dull to percussion with resonance in the right flank. Bowel sounds were audible in the right flank. No abnormalities were noted on systemic examination.

A provisional diagnosis of a large ovarian cyst was made. However, contrast-enhanced computed tomography (CECT) of the abdomen revealed a 31×18 cm retroperitoneal fatty mass containing a 7×5 cm contrast-enhancing, hyperdense area with fibrous components, suggestive of liposarcoma (Fig. 1). The mass displaced the intestines and left kidney laterally.

Laboratory investigations, including hematological parameters and CA-125, were within normal limits. Chest X-ray, electrocardiogram, and echocardiography showed no abnormalities. Following preoperative optimization, the patient underwent exploratory laparotomy and a large retroperitoneal fatty tumor with areas of central necrosis was excised completely (10 kg) (Fig. 2). A drain was placed in the left paracolic gutter.

Postoperative recovery was uneventful. The patient was discharged on the tenth postoperative day after suture removal. Histopathological examination confirmed the diagnosis of well differentiated low grade retroperitoneal liposarcoma. However, MDM2 could not be demonstrated on IHC. At three-month follow-up, the patient remained asymptomatic and was referred to the oncology department for further management.

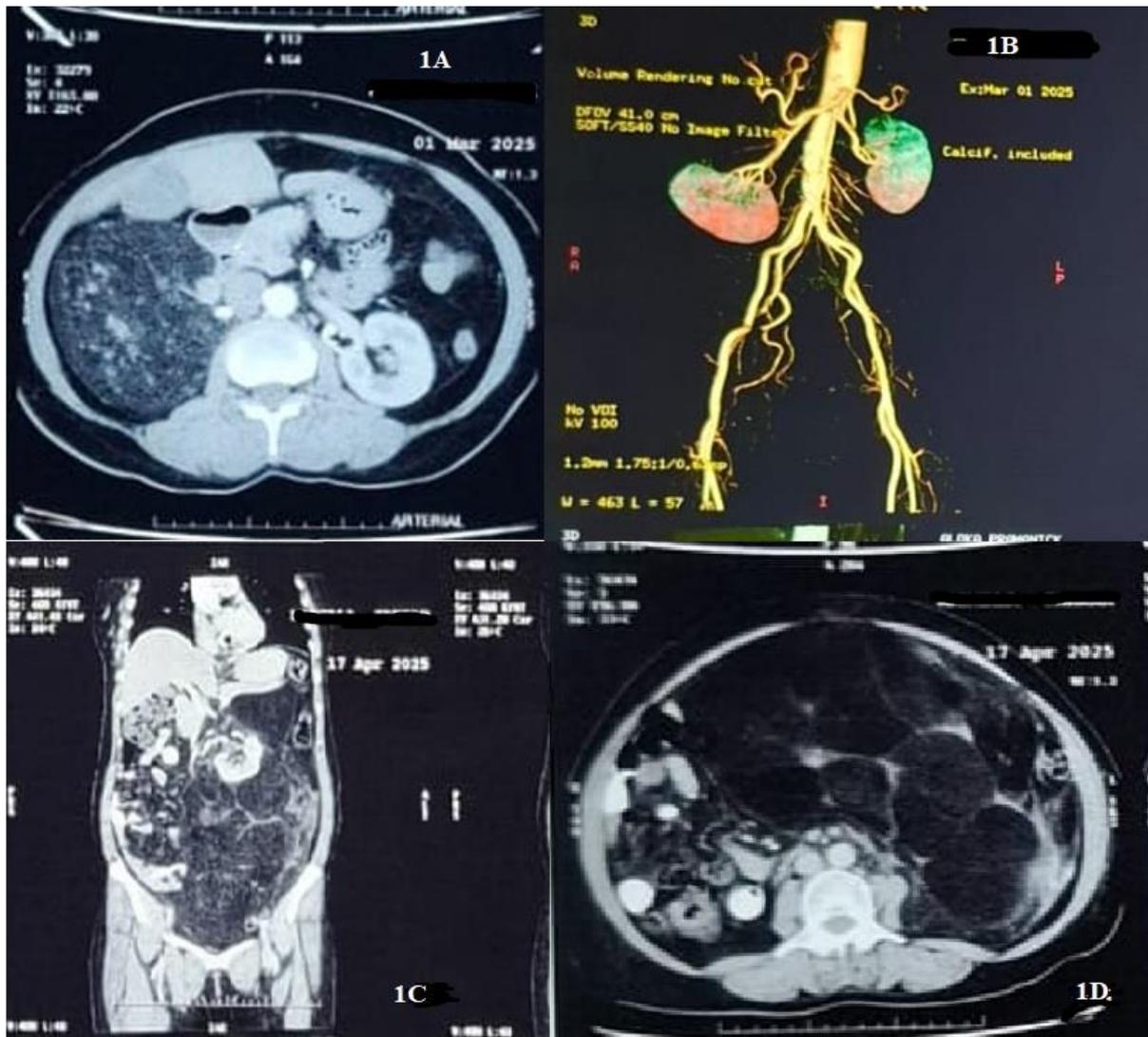


Figure 1. **A** - CT frame showing giant adrenal angiomyolipoma, **B** – CT angiography showing displaced kidney by the mass, **C** & **D** – CT frames showing giant retroperitoneal liposarcoma displacing the intestines and kidney to the right

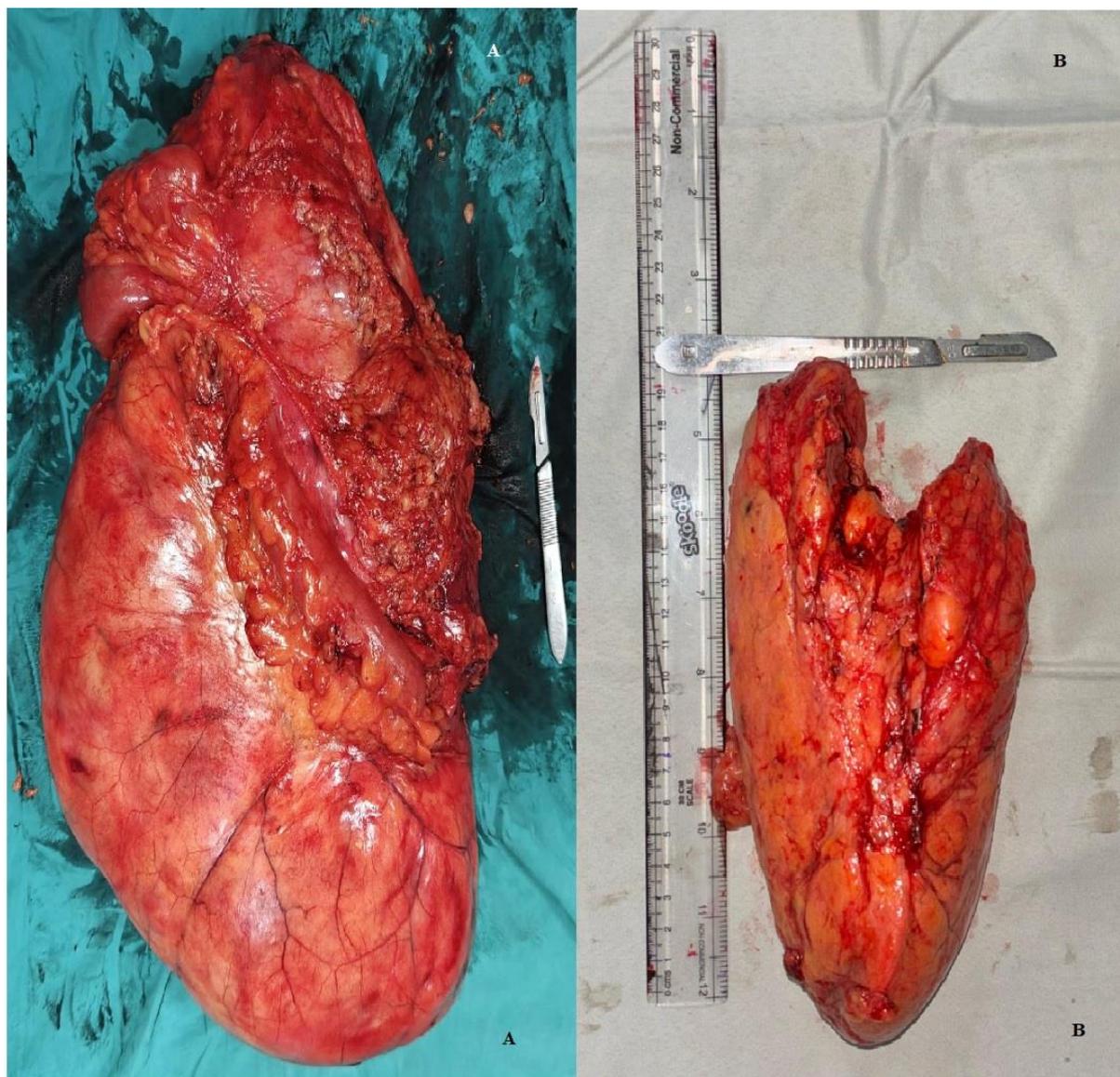


Figure 2. Postoperative specimen of giant **A**. Retroperitoneal liposarcoma, **B**. Adrenal angiomyolipoma

Case 2

A 64-year-old woman presented to the outpatient department with complaints of dull aching pain and abdominal discomfort localized to the right lower quadrant for the past 8–10 months. She had no associated symptoms and no history of comorbidities such as hypertension, diabetes, or thyroid dysfunction. Urine and stool were normal.

On general examination, all vital parameters were within normal limits. Abdominal examination revealed a firm, non-tender, ballotable mass measuring approximately 10 × 6 cm in the right lumbar region. A provisional diagnosis of renal lump was made.

Routine hematological investigations were normal. Endocrine evaluation, including 24-hour urinary metanephrines and normetanephrines, as well as serum cortisol, were within normal limits.

Ultrasound of the abdomen showed a 15 × 7 × 9.7 cm hyperechoic, heterogeneous, well-circumscribed lesion adjacent to the right kidney, with minimal internal vascularity and no invasion of the renal parenchyma. Contrast-enhanced CT of the abdomen revealed a predominantly fat-containing lesion measuring 15.1 × 10.1 × 9.3 cm at the upper pole of the right kidney, displacing the kidney inferiorly (Fig 1). Internal soft tissue and vascular components were noted, and the lesion was radiologically suggestive of an adrenal angiomyolipoma.

Exploratory laparotomy revealed a large mass arising from the adrenal gland above the right kidney. The mass was excised completely after ligating the adrenal vein and separating it from the kidney (Fig 2). The specimen weighed 2.5

kg and was sent for histopathological evaluation.

The postoperative course was uneventful. The patient was discharged on the 10th postoperative day following stitch removal. Histopathology confirmed the diagnosis of adrenal angiomyolipoma. At 3-month follow-up, the patient remained asymptomatic and well.

Discussion

Retroperitoneal liposarcoma and adrenal angiomyolipoma, though vastly different in behaviour, represent rare but significant abdominal masses. Liposarcoma, the most common retroperitoneal sarcoma, comprises over 50% of RPS and presents in four variants—well-differentiated being the most indolent with >90% 5-year survival [1]. Management hinges on surgical excision, as biopsy is often avoided. Recurrence and prognosis depend on tumor subtype, size, and resectability, while the role of adjunct therapies remains selective and debated [3,4].

Adrenal AML, by contrast, are benign, nonfunctional tumors accounting for 6–16% of adrenal incidentalomas, increasingly detected due to widespread imaging [2]. Typically, asymptomatic, larger lesions (>7 cm) risk rupture or hemorrhage and warrant surgical intervention, especially if symptomatic or radiologically suspicious. AML can be Classic or Triphasic AML, Epithelioid AML, Fat poor AML, Cystic AML, Extrarenal AML, AML associated with TSC which may require genetic screening [5,6].

Together, these cases highlight the diagnostic and therapeutic nuances of managing large retroperitoneal masses. Timely imaging, clinical vigilance, and

individualized surgical strategy remain key to optimal outcomes in these abdominal behemoths.

Author contributions

Concept: UD; Data collection: KK, AK; Writeup: KK, AK; Editing: UD; Final approval: UD, AK, KK

Statements and Declarations

Consent for publication

Written informed consent was obtained from the patient for publication of their clinical details and associated images.

Conflict of interest

The authors declare no conflicts of interest related to this publication.

Data availability

The data supporting the findings of this study are available from the corresponding author upon reasonable request.

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