Hyperechoic lesions on Endoscopic Ultrasound are not always benign

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Introduction

- Liposarcomas are rare tumors usually diagnosed in late adulthood with an uncommon incidence.
- We present a case of a hyperechoic mass seen on the endoscopic ultrasound (EUS) with fine needle biopsies confirming a metastatic liposarcoma.

Case Presentation

- A 70-year-old female with a distant history (>10 years) of retroperitoneal (RP) liposarcoma treated with surgical resection presented to PCP. Patient was without significant gastrointestinal symptoms at the visit.
- Surveillance A/P showed a soft tissue lesion in the L posterior RP space.
- Patient was referred to interventional gastroenterology for EUS guided tissue biopsy. An oval mass was identified in the peri-splenic area at prior nephrectomy bed.
- The mass was hyperechoic with some isoechoic areas, 31 mm by 29 mm in maximal cross-sectional diameter, and the outer margins were not well defined (Figure 1).
- FNA and cytology analysis revealed a well-differentiated liposarcoma indicating recurrence of the disease.

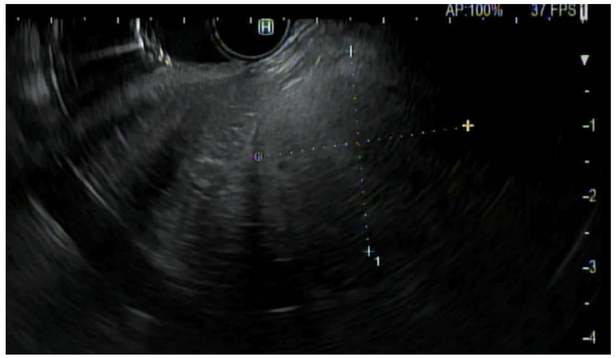


Figure 1. A hyperechoic, peri-splenic mass, 3.1 x 2.9 cm on EUS

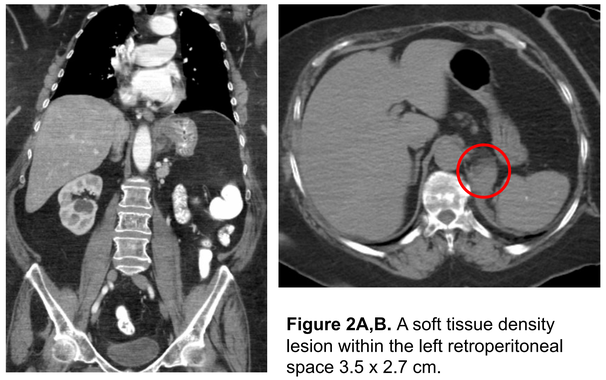
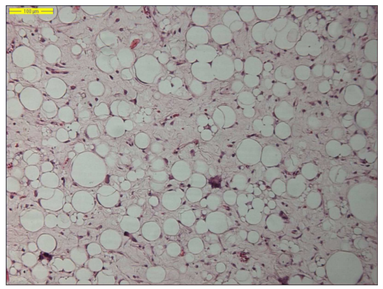


Figure 2A,B. A soft tissue density lesion within the left retroperitoneal space 3.5 x 2.7 cm.



(Right) Histology of a well-differentiated Liposarcoma (hematoxylin and eosin), Image from Matthyssens 2015.

Discussion

- Interpreting echogenicity of GI lesions on EUS is an important part of the differential diagnosis.
- Lesions with high fat or collagen content are usually hyperechogenic as a result of higher ultrasound wave scattering.
- Liposarcoma is a very rare soft tissue malignancy of mesenchymal origin.
- Four subtypes of liposarcomas exist (well-differentiated, myxoid, dedifferentiated, pleomorphic), among which a well-differentiated subtype has the largest fat content.
- Commonly affected sites are upper extremities, thighs, gluteal, and retroperitoneum, last of which can be detected on the EUS.
- Endosonographers must have a higher clinical suspicion to diagnose metastatic process while evaluating patients with history of mesenchymal tumors.

References

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