

AMSER Case of the Month:

39 year old female presents with left lower quadrant mass

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Patient Presentation

- 39 year old female presents with 10 year history of left lower extremity pain and swelling made worse by prolonged sitting. She denies any limited mobility, urinary hesitancy, or abdominal pain. There is no personal history of cancer; however, maternal grandfather had a cancer of unknown origin.
- Patient denies smoking history and has 3-4 alcoholic drinks per month.
- Physical exam is notable for left lower extremity swelling.
- Labs: CBC and CMP were within normal limits



What Imaging Should We Order?



Select the applicable ACR Appropriateness Criteria

<u>Variant 1:</u> Palpable abdominal mass. Suspected intra-abdominal neoplasm. Initial imaging.		
Procedure	Appropriateness Category	Relative Radiation Level
CT abdomen with IV contrast	Usually Appropriate	ଚଚଚ
US abdomen	Usually Appropriate	0
MRI abdomen without and with IV contrast	May Be Appropriate	0
CT abdomen without IV contrast	May Be Appropriate	ଚଚଚ
MRI abdomen without IV contrast	May Be Appropriate	0
CT abdomen without and with IV contrast	Usually Not Appropriate	***
FDG-PET/CT skull base to mid-thigh	Usually Not Appropriate	****
Radiography abdomen	Usually Not Appropriate	**
Fluoroscopy contrast enema	Usually Not Appropriate	***
Fluoroscopy upper GI series	Usually Not Appropriate	***
Fluoroscopy upper GI series with small bowel follow-through	Usually Not Appropriate	***





CT Findings (unlabeled)





CT Findings (labeled)

127.5 mm

2 mm Canal

Sagittal view: Fatty mass extends into the left upper thigh and is located posterior to inguinal canal

207.3

Coronal view: Fatty mass measures approximately 13 cm x 20 cm and has mixed densities



Axial view: -75 Hu indicates a fatty mass which is seen located anterior to psoas and illiacus muscle bodies



MRI Findings: (unlabeled)











MRI Findings: (labeled)



Differiential Diagnosis:

- 1. Liposarcoma
- 2. Lipoma
- 3. Leiomyosarcoma
- 4. Teratoma
- 5. Hibernoma

Patient was taken for resection of the mass.

Pathology: Gross images

Entire mass was intact when resected and encompassed by a capsule.

Final Diagnosis:

Benign Hibernoma

Case Discussion - Hibernoma

• Etiology:

Fetal brown fat tissue
Possibly caused by 11q translocation
Associated with MENS1

• Epidemiology:

 \odot Most common at about 38 years of age

 \circ M > F

 \odot Almost 2% of adipocyte tumors

• Other characteristics:

 \odot Benign tumors

 Can have a variety of gross (yellow, brown , or gray) and microscopic (white fat, brown fat, or spindles) features

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Case Discussin - Hibernoma

• Types:

Typical – 82% of cases, consists of eosinophilic and pale cells
 Lipoma-like – scattered hibernoma cells
 Myxoid – basophilic nature
 Spindle cell – CD34 positive

• Management:

 \circ Surgical excision – definitive

- Future outlook:
 - \odot Reoccurrence is rare
 - \odot Benign tumors

 Complications can occur due to mass effect – impaired wound healing, scarring, or hematoma formation

References

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