

# AMSER Case of the Month

## June 2025

56 y/o male presents with scrotal lump

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# Patient Presentation

- HPI

- 56-year-old man who presents with a scrotal lesion and rectal discomfort
- He initially believed it to be a pimple but presented with concerns for it not resolving
- Patient reported no symptoms of similar lesions, fevers, chills, or body aches

- Past Surgical History

- Vasectomy

- Social History

- Not currently sexually active

# Objective Findings

- **General Physical Exam:** No acute distress
- **GU:** Left scrotal lesion observed, resembles a cyst, non-tender, no drainage or pustular head noted
- **Labs:** CBC and LFTs were within normal range

What Imaging Should We Order?

# Select the applicable ACR Appropriateness Criteria

Scenario	Scenario ID	Procedure	Adult RRL	Peds RRL	Appropriateness Category
Scrotum abnormality, palpable, newly diagnosed, no hx of trauma, initial imaging	3194875	● US duplex Doppler scrotum	0 mSv O	0 mSv [ped] O	Usually appropriate
		● US scrotum	0 mSv O	0 mSv [ped] O	Usually appropriate
		● MRI pelvis (scrotum) without and with IV contrast	0 mSv O	0 mSv [ped] O	May be appropriate
		● MRI pelvis (scrotum) without IV contrast	0 mSv O	0 mSv [ped] O	May be appropriate
		● MRI abdomen and pelvis without and with IV contrast	0 mSv O	0 mSv [ped] O	Usually not appropriate
		● MRI abdomen and pelvis without IV contrast	0 mSv O	0 mSv [ped] O	Usually not appropriate
		● CT abdomen and pelvis with IV contrast	1-10 mSv ⊕⊕⊕	3-10 mSv [ped] ⊕⊕⊕⊕	Usually not appropriate
		● CT abdomen and pelvis without IV contrast	1-10 mSv ⊕⊕⊕	3-10 mSv [ped] ⊕⊕⊕⊕	Usually not appropriate
		● CT pelvis with IV contrast	1-10 mSv ⊕⊕⊕	3-10 mSv [ped] ⊕⊕⊕⊕	Usually not appropriate
		● CT pelvis without IV contrast	1-10 mSv ⊕⊕⊕	3-10 mSv [ped] ⊕⊕⊕⊕	Usually not appropriate
		● Nuclear medicine scan scrotum	1-10 mSv ⊕⊕⊕	0.3-3 mSv [ped] ⊕⊕⊕	Usually not appropriate
		● CT abdomen and pelvis without and with IV contrast	10-30 mSv ⊕⊕⊕⊕	10-30 mSv [ped] ⊕⊕⊕⊕⊕	Usually not appropriate
		● CT pelvis without and with IV contrast	10-30 mSv ⊕⊕⊕⊕	3-10 mSv [ped] ⊕⊕⊕⊕	Usually not appropriate

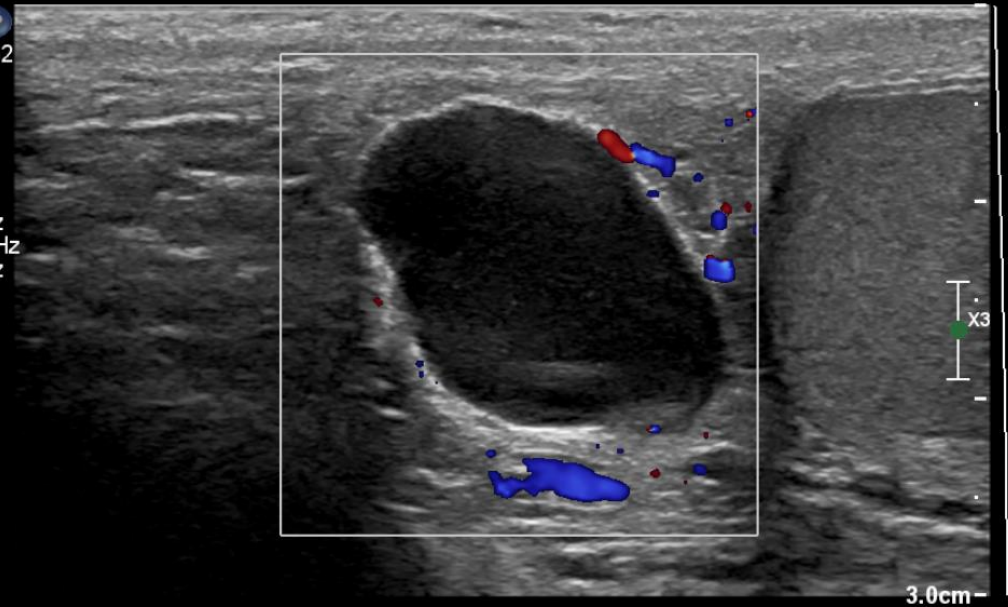
# Findings (unlabeled)



10Hz

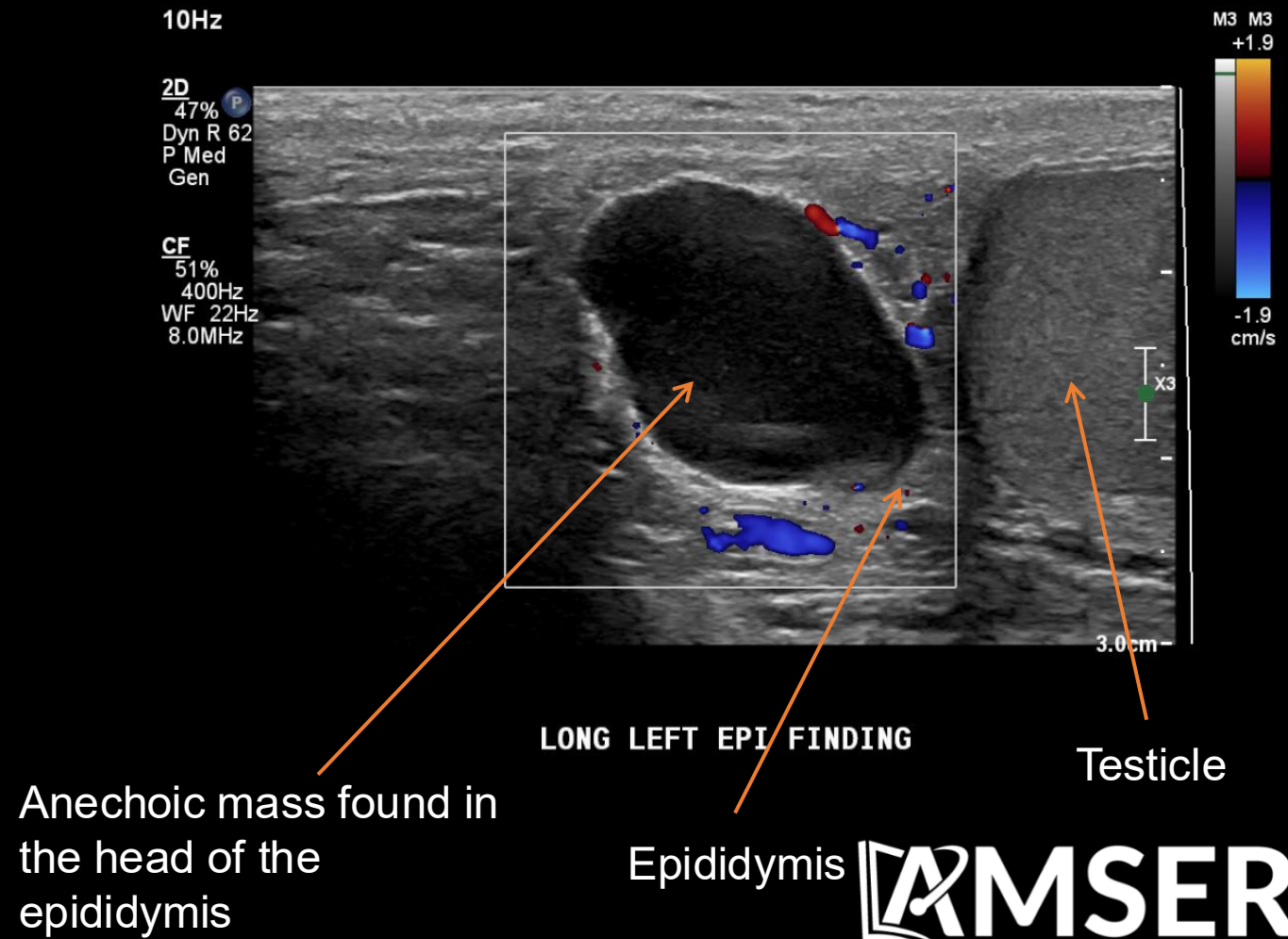
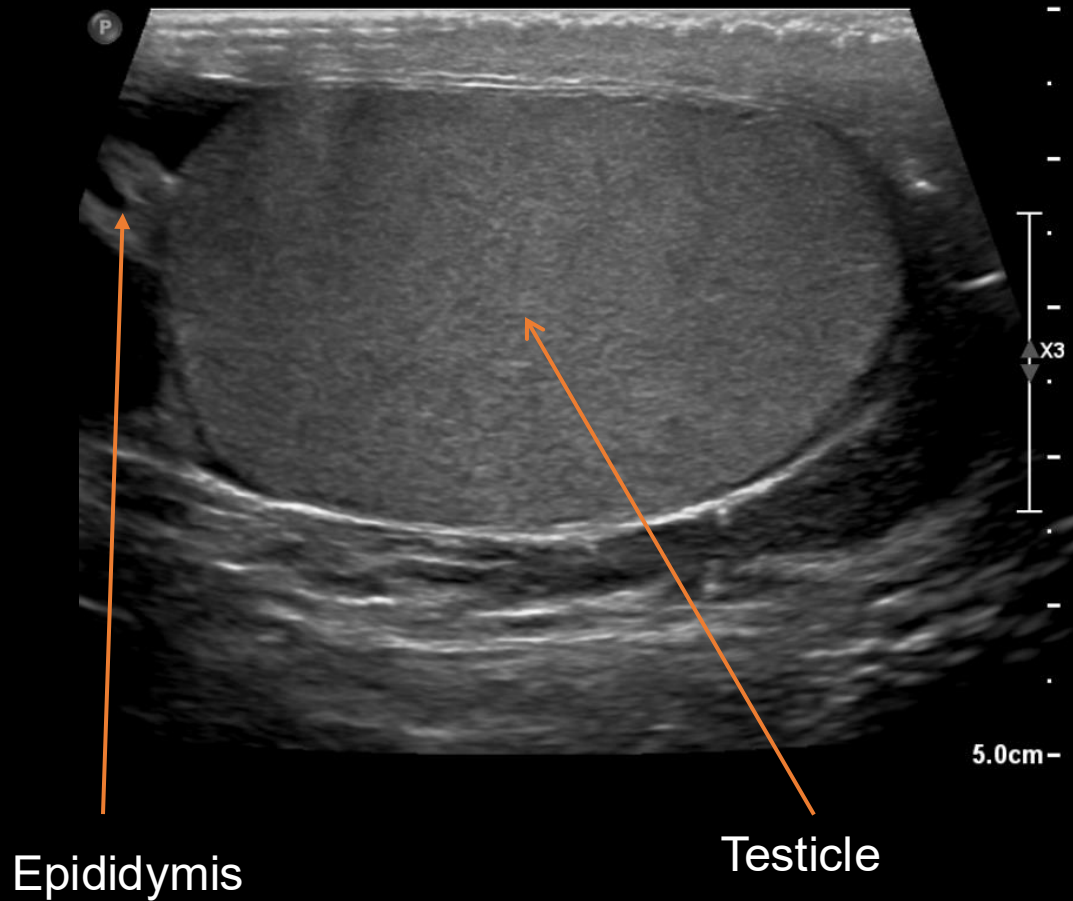
2D  
47%  
Dyn R 62  
P Med  
Gen

CF  
51%  
400Hz  
WF 22Hz  
8.0MHz



LONG LEFT EPI FINDING

# Findings: (labeled)



# Differential Diagnosis

- **Cyst of the epididymis**

- Epithelial lined cells contain serous liquid that originate from the lymphatic duct
- On ultrasound, they are anechoic and are with well-defined borders and no internal flow on doppler

- **Testicular abscess**

- Rare but seen secondary to orchiepididymitis
- Ultrasound reveals blurred margins with a hypoechoic rim of varying thickness

- **Cyst of the appendix testis**

- Composed of residual cells from tissue of mesosperic ducts; may lead to torsion of the appendix testis

- **Spermatocele**

- A cystic structure composed of sperm and lymphocytes.
- On ultrasound, they can have low-level echogenic proteinaceous fluid that helps differentiate from epididymal cysts



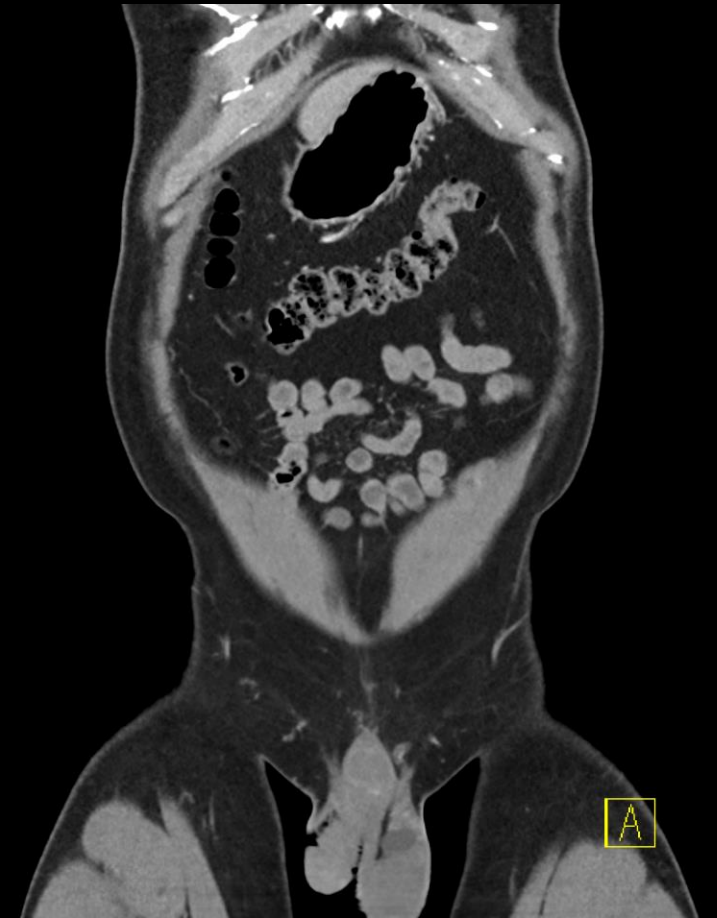
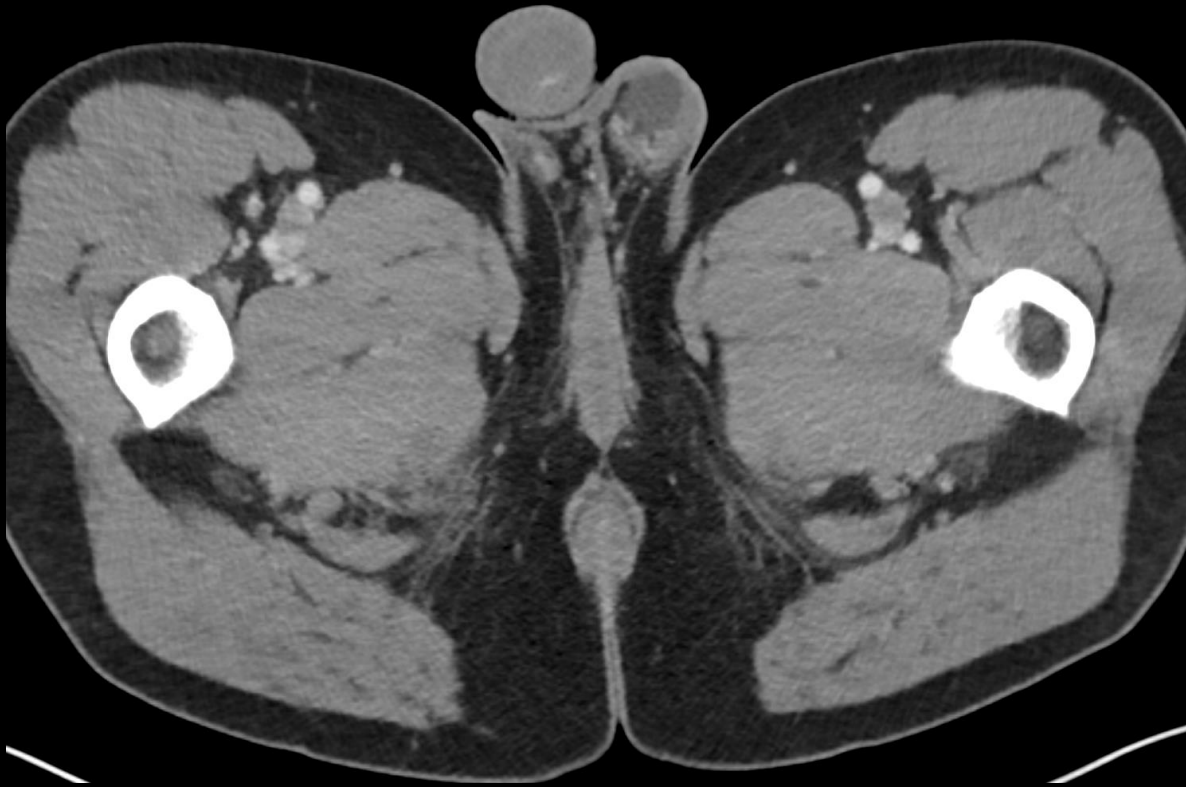
Final Dx:

Simple left epididymal head cyst measuring 2.1 cm

# Final Diagnosis

- Simple left epididymal head cyst measuring 2.1 cm, corresponding with the palpable lump
- After ultrasound and diagnosis of cyst was made, a previous CT, ordered 2 months ago for rectal pain, was identified and evaluated.
- Findings of on the CT further verified diagnosis of left epididymal head cyst

# CT Abdomen and Pelvic (Unlabeled)



# CT Abdomen and Pelvic (Labeled)



Epididymal Cyst

# Case Discussion

- **Epidemiology**

- Common in adults but rare in children
- Cyst of the epididymis is the most common cystic lesion and is asymptomatic in 20-40% of patients
- Incidence as high as 75%
- The right testis was more commonly involved, 70%, than the left testis in a study of 10 patients
- Most cysts arise in the epididymis, but cysts can occur at any anatomical site of the scrotum

- **Symptoms**

- Palpable globular swelling found most often in the head but can be found at any location in the epididymis
- Possible to have translucency of the cyst with transillumination but may not be seen secondary to small size and contents of the cyst.

# Case Discussion

- **Pathology**

- Fluid collection found at the head of the epididymis
- Walls of the cyst are composed of pseudostratified columnar epithelium which help differentiate them from spermatoceles which are lined by simple cuboidal epithelium and spermatozoa

- **Treatment and Prognosis**

- Aspiration may be a temporary solution but cyst will more than likely reoccur
- Excision of the cyst, epididymectomy or orchiectomy may be done if patient is suffering severe symptoms (i.e. severe mass affect or association with germ cell tumor)

- **Complications**

- Bleeding and post-op infection
- Damage to spermatic cord during removal
- Recurrence after removal

# References:

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