AMSER Case of the Month January 2025

72 yo male s/p laparoscopic prostatectomy presents with two weeks of groin pain

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Patient Presentation

- **HPI**: 72 yo male presented to the ED for bilateral groin pain that started about 2 weeks ago and exacerbated with ambulation. Denies any associated lower extremity weakness/numbness, hx of sciatica or fever
- **PMHx**: s/p laparoscopic prostatectomy with bilateral pelvic lymph node dissection six weeks prior to this ED visit.
- **Physical Exam**: Afebrile, abdomen is soft, non-distended, no rebound tenderness. Well healing scars from prostatectomy. Femoral pulses intact bilaterally, no asymmetry between the right and left groin. No obvious hernia, medial tendon in the right groin is tender to touch. Femoral pulses, motor and sensations are grossly intact in lower extremities bilaterally.
- **Vitals**: HR 82; RR; 16; BP; 137/82; SpO2 98% RA

What Imaging Should We Order?

Select the applicable ACR Appropriateness Criteria

Variant 3: **Suspected deep pelvic hernia including obturator, sciatic, or perineal. Initial imaging.**

Procedure	Appropriateness Category	Relative Radiation Level
MRI pelvis without and with IV contrast	Usually Appropriate	O
CT abdomen and pelvis with IV contrast	Usually Appropriate	☢☢☢
CT abdomen and pelvis without IV contrast	Usually Appropriate	☢☢☢
CT pelvis with IV contrast	Usually Appropriate	☢☢☢
CT pelvis without IV contrast	Usually Appropriate	☢☢☢
MRI pelvis without IV contrast	May Be Appropriate	O
US pelvis	Usually Not Appropriate	O
Radiography abdomen and pelvis	Usually Not Appropriate	☢☢
Fluoroscopy small bowel follow-through	Usually Not Appropriate	☢☢☢
CT abdomen and pelvis without and with IV contrast	Usually Not Appropriate	☢☢☢☢
CT pelvis without and with IV contrast	Usually Not Appropriate	☢☢☢☢

This imaging modality was ordered by the ER physicians

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Axial CT A/P w/ IV contrast (unlabeled)

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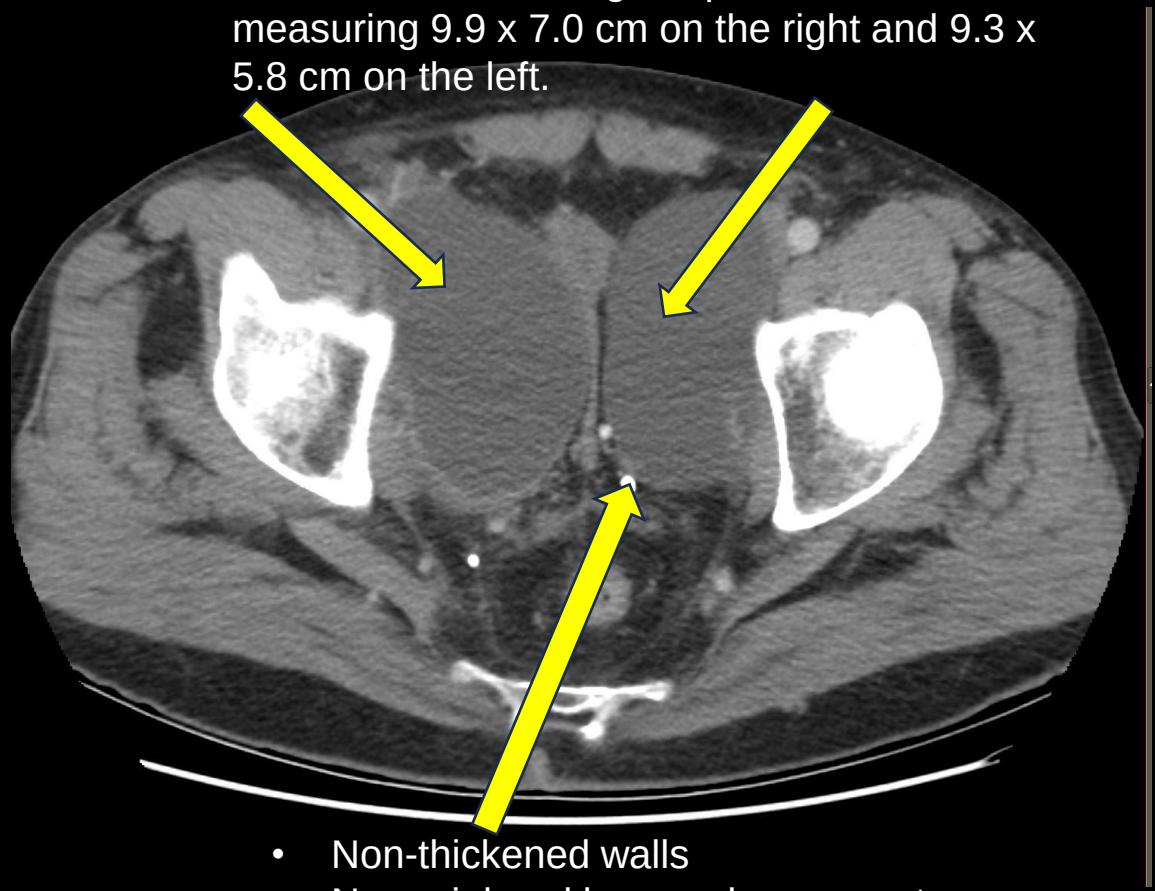
Axial CT A/P w/ IV contrast (labeled)

Fluid collections along the pelvic sidewalls measuring 9.9 x 7.0 cm on the right and 9.3 x 5.8 cm on the left.



- Non-thickened walls
- No peripheral hyperenhancement
- simple fluid attenuation

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Final Dx:

Bilateral lymphocele

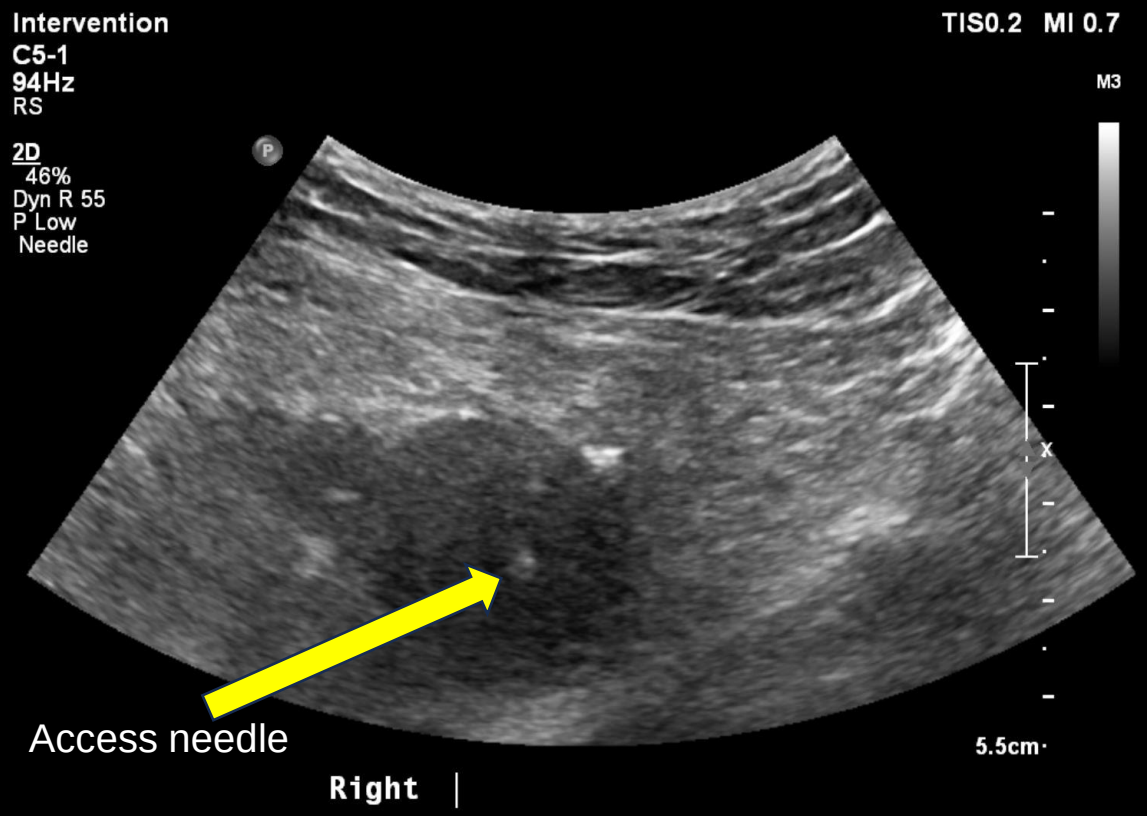
Case Discussion

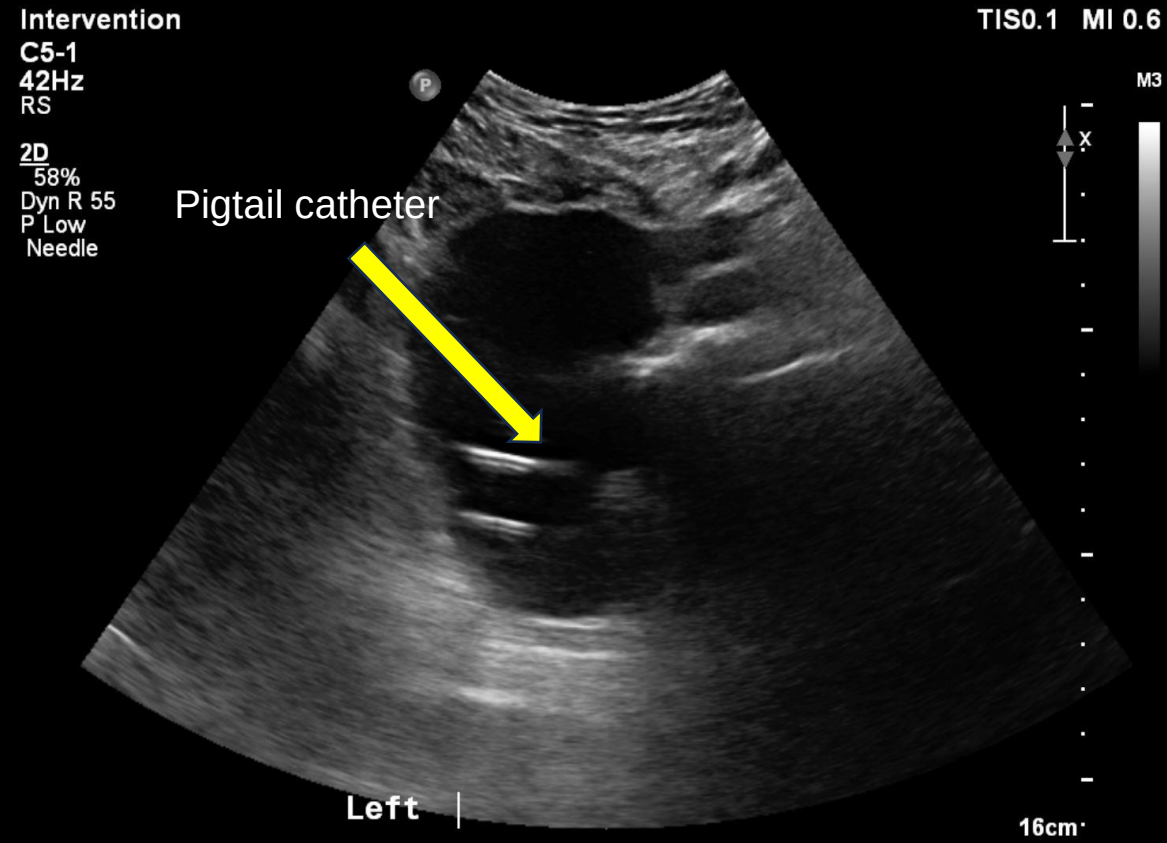
- **Epidemiology**: The incidence of lymphocele (LC) after radical prostatectomy (RP) and pelvic lymph node dissection (PLND) ranges from 2% - 61%.
- **Pathophysiology:** Damage to lymphatic vessels → Disruption of lymphatic drainage pathways → Trapped collections of lymphatic fluid in the extraperitoneal space.
- **Risk Factors:** There are surgical and non-surgical risk factors for LC development after RP + PLND.
  - **Nonsurgical**: Age, LMWH prophylaxis
  - **Surgical:** Extent of PLND, sealing techniques
  - There is no clear consensus on whether the surgical approach affects LC risk.

Case Discussion

- **Presentation**: Usually asymptomatic, but some may present as lower extremity edema, DVT, constipation, voiding dysfunction, infection, and abdominal and leg pain.
- **Imaging:** CTAP w/ contrast.
  - Thin-wall walled simple fluid collections in the extraperitoneal spaces, no significant peripheral enhancement
  - May be unilateral or bilateral
- **Management:**
  - **Conservative:** Percutaneous drainage, sclerosing agents, and observations are initial options.
    - Patient received ultrasound guided bilateral lymphocele drainage which can be seen on the next slide.
    - Thin clear yellow fluid were obtained compatible with lymphocele
  - **Surgical:** Laparoscopic or open marsupialization, and lymphatic embolization.

Ultrasound-guided percutaneous Right and Left pelvic fluid collection drainage





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The collections were percutaneously accessed via an anterior pelvic approach utilizing a OneStep catheter under sonographic guidance. A guidewire was then advanced into each collection, a locking pigtail catheter was advanced over the wire, and the catheter loop was formed. The catheter was then connected to suction bulb drainage.

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References:

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Ten Hove AS, Tjiong MY, Zijlstra IAJ. Treatment of symptomatic postoperative pelvic lymphoceles: A systematic review. *European Journal of Radiology*. 2021;134:109459. doi:10.1016/j.ejrad.2020.109459

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