

81 y/o male with abdominal pain s/p cystoscopy

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Axial CT Cystogram



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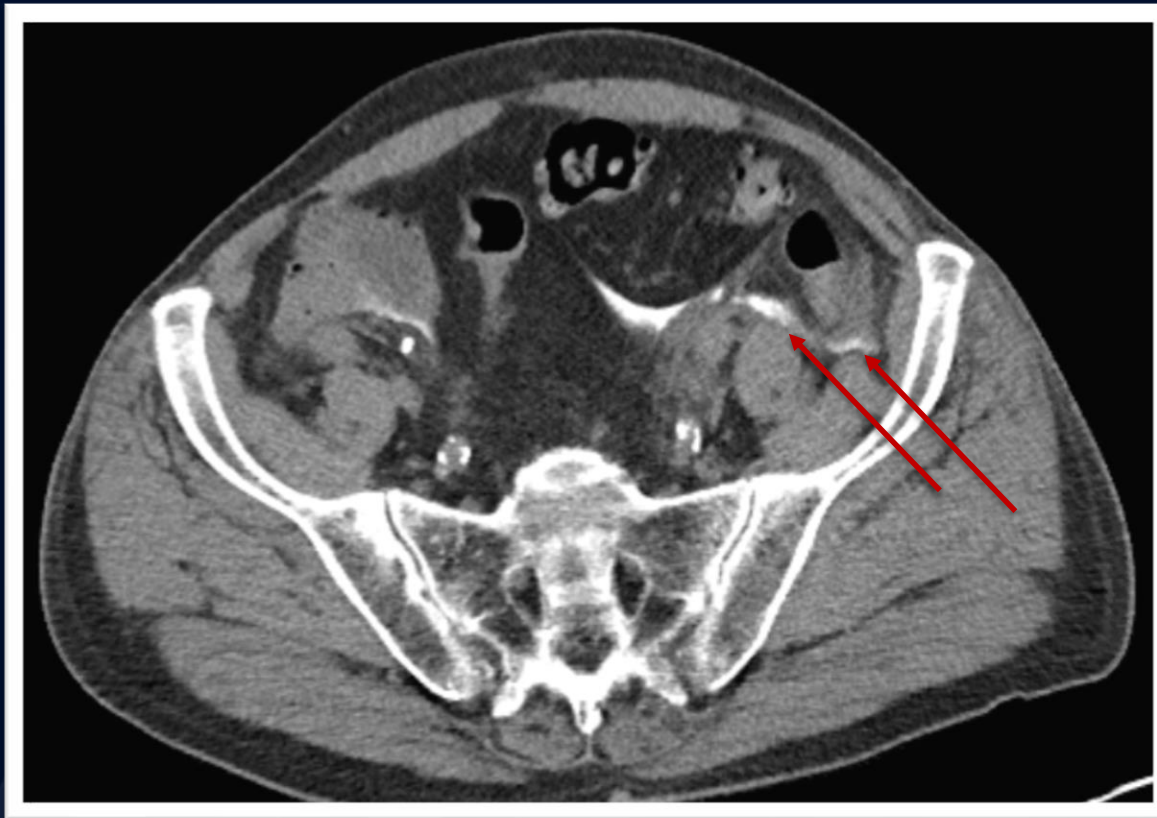


Coronal CT Cystogram



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Intra- and extraperitoneal bladder rupture



Axial CT Cystogram: At the mid pelvis, contrast is seen extravasating into the left paracolic gutter, indicating an intraperitoneal component.



Axial CT Cystogram: Lower down, perivesical contrast is seen. Foley catheter is present within the bladder.



Axial CT Cystogram: Contrast extravasation localized around the right ureterovesical junction.



Coronal CT Cystogram: Perivesical contrast around the dome of the bladder (blue arrow). Contrast is also demonstrated in the left paracolic gutter, indicating an intraperitoneal component (green arrow).



Sagittal CT Cystogram: Defect in the bladder dome (yellow arrow) with perivesical contrast.

Bladder Rupture

Imaging Features

- Intrapерitoneal rupture
 - Contrast extravasates into the paracolic gutters and outlines loops of bowel.
 - Layering of contrast in dependent areas (Pouch of Douglas, Morrison's Pouch)
 - Look for bladder dome defect
- Extraperitoneal Rupture
 - Extravasation into extraperitoneal spaces, most commonly the retropubic space of Retzius
 - May see contrast extravasation into the anterior abdominal wall, thigh, and scrotum

Bladder Rupture

General Features

- **Extraperitoneal**
 - 62% of all bladder ruptures
 - Usually secondary to pelvic fracture; fragment lacerates the base of the bladder.
 - Treatment is usually medical management with Abx and catheterization
- **Intraperitoneal**
 - 25% of bladder ruptures
 - Trauma to abdomen with full bladder
 - May mimic acute renal failure
 - Treatment requires surgery to repair bladder dome
- **Combined**
 - 12% of ruptures
 - Findings of both intraperitoneal and extraperitoneal ruptures

References

1. Brant, W. E., & Helms, C. A. (2012). *Fundamentals of diagnostic radiology*. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins
2. Diagnostic Imaging for Radiology. (n.d.). Retrieved November, 4, 2017, from <http://www.statdx.com/>