Anal and Perianal Emergencies

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NordicForum
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Trauma & Emergency Radiology

Diagnosis

Anal/Ano-rectal abscess
- Acute anal fissures
- Anal fistulas

Perineal necrotizing fasciitis (Fournier's gangrene)
Complicated hemorrhoid
Anorectal varices
Prolapse
Ano-rectal foreign bodies

Imaging

(Direct Visualization)

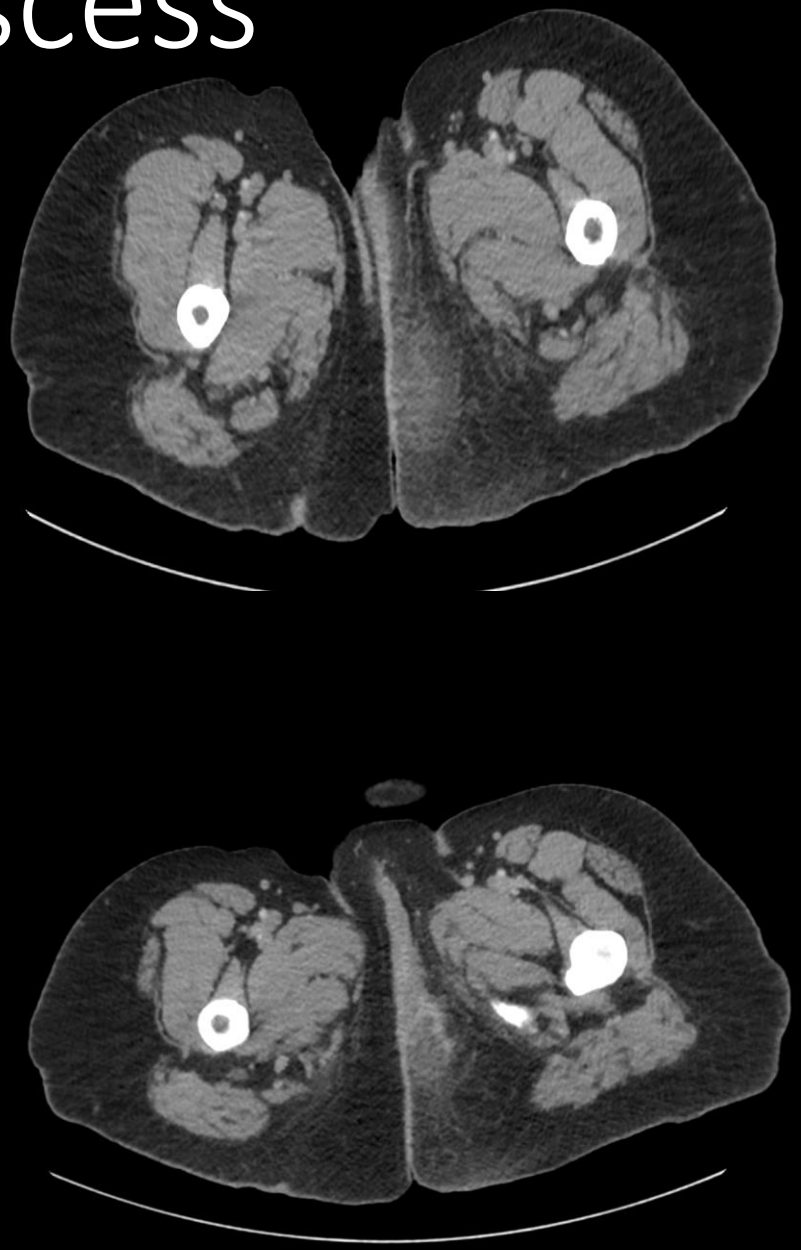
Ultrasound

CT

(MRI)

Perianal Abscess

- Most common type of anorectal abscess
- >> Pain + discomfort
- Located at the anal verge -> can extend into areas continuous with the perianal space: such as intersphincteric space
- Can also lead to systemic infection if left untreated



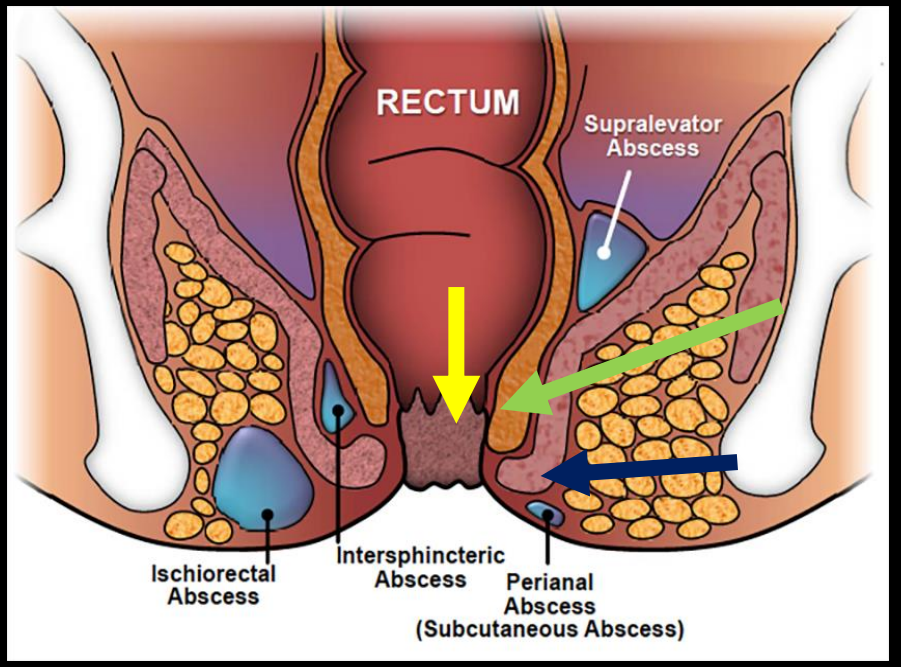
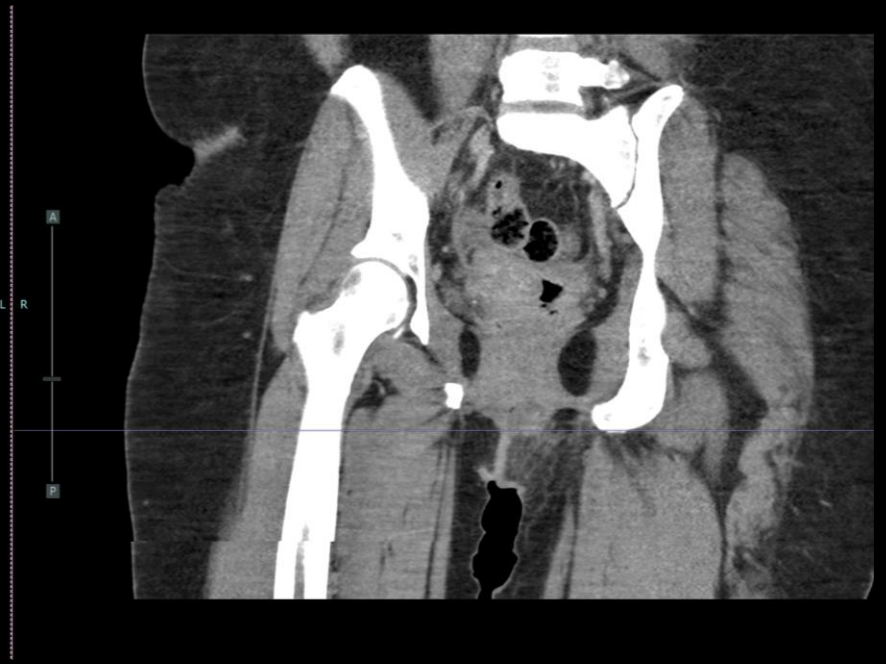
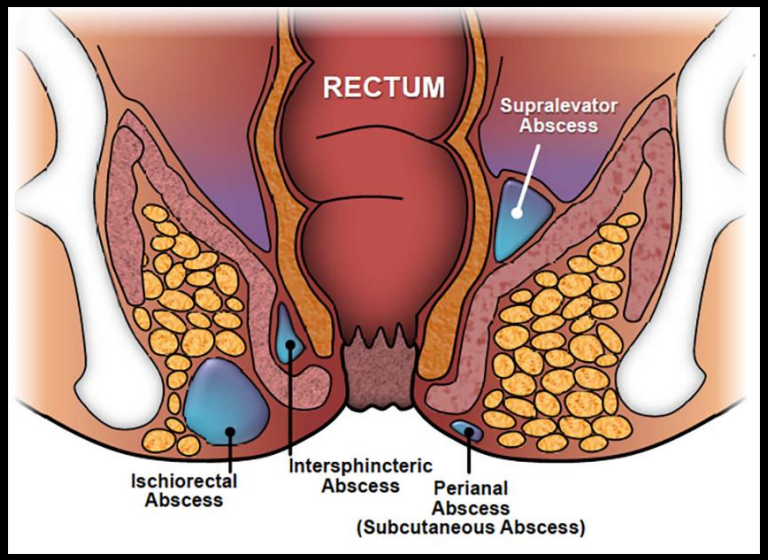
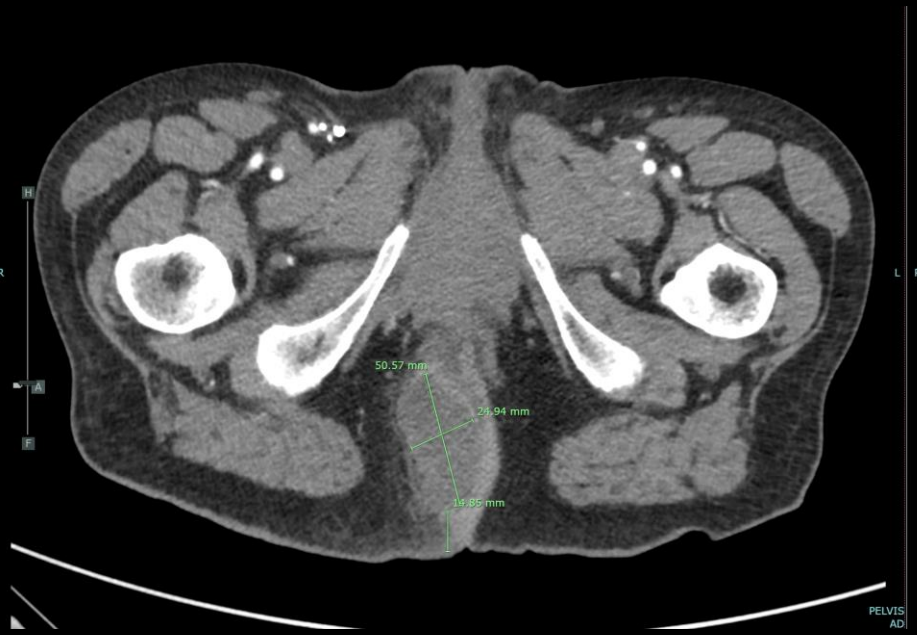


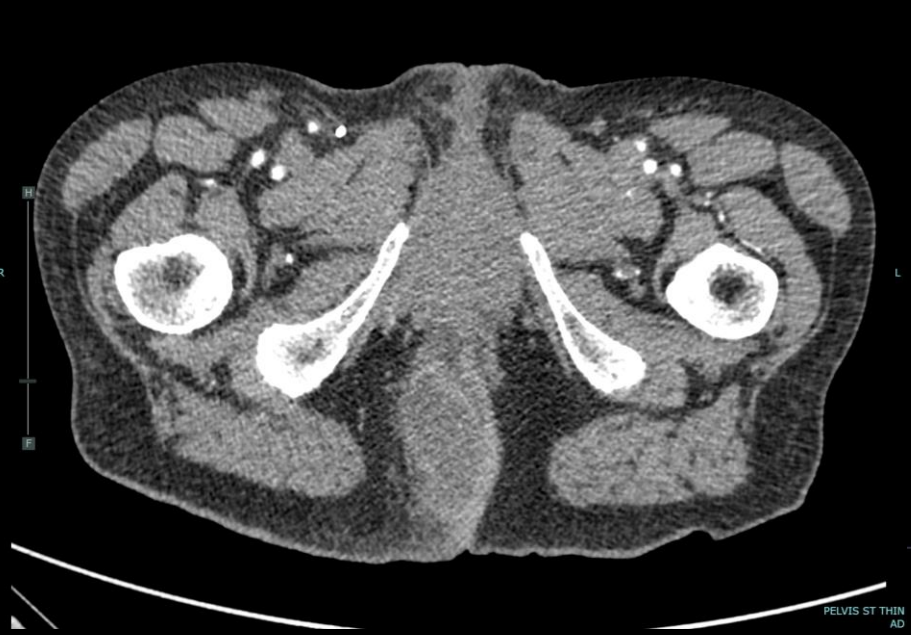
Figure credit : Dr. Terence Chua

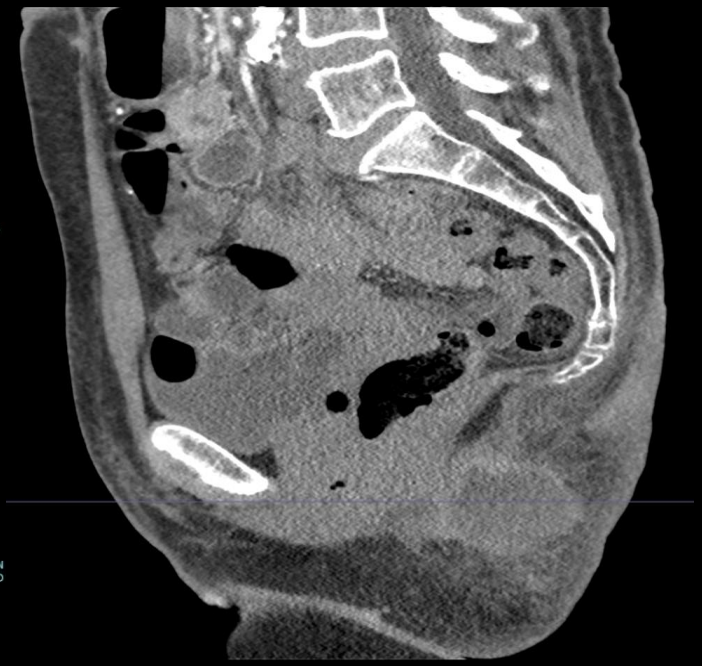


Perianal + Ishiorectal

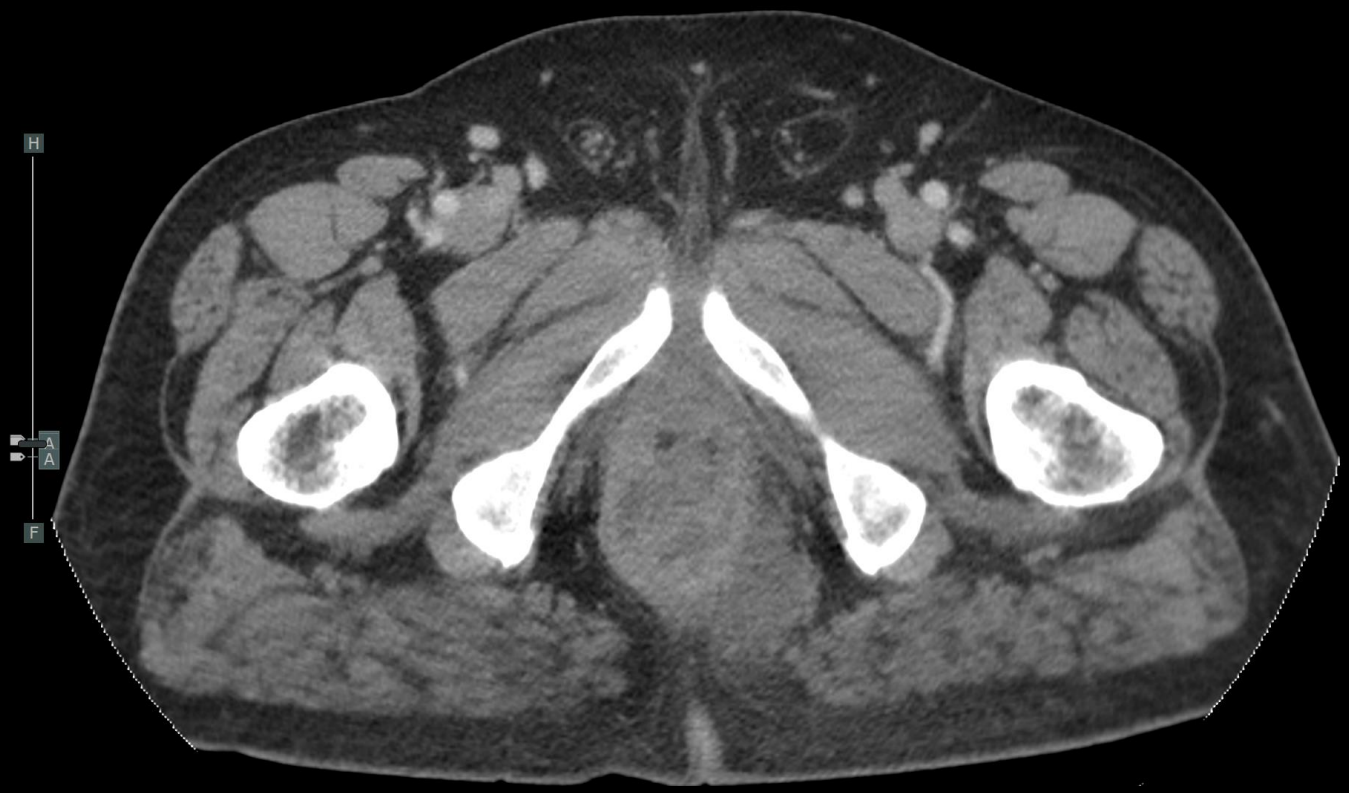


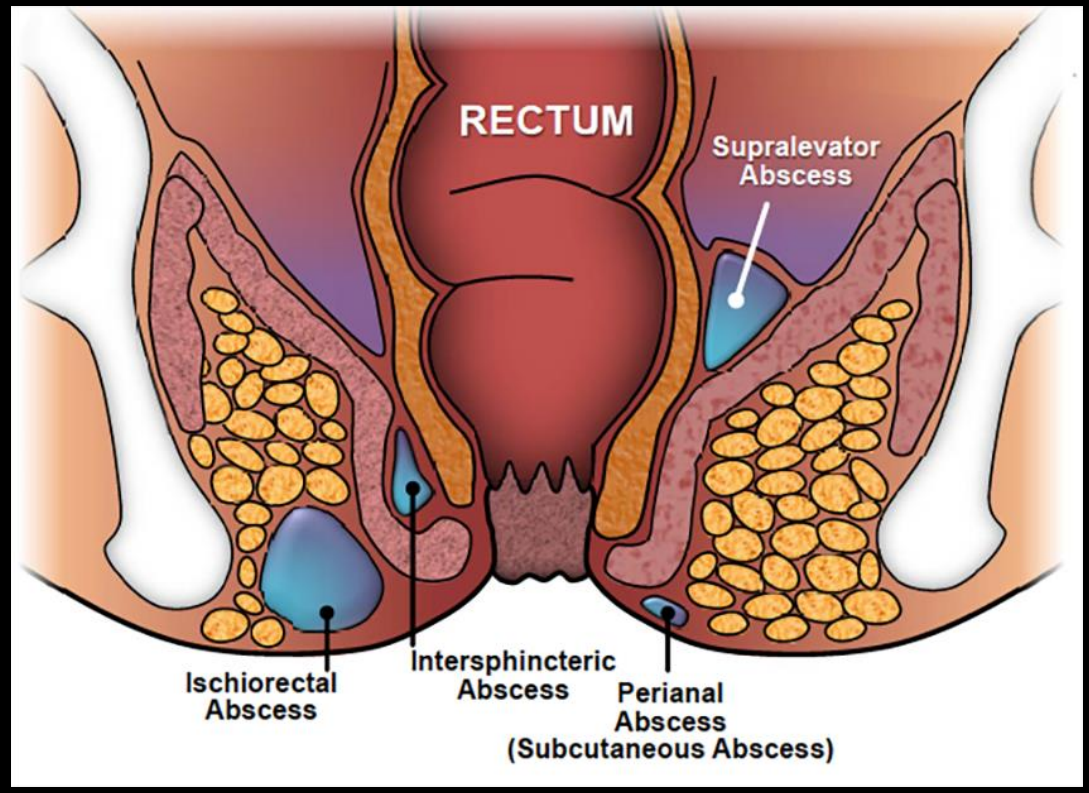






Intersphincteric

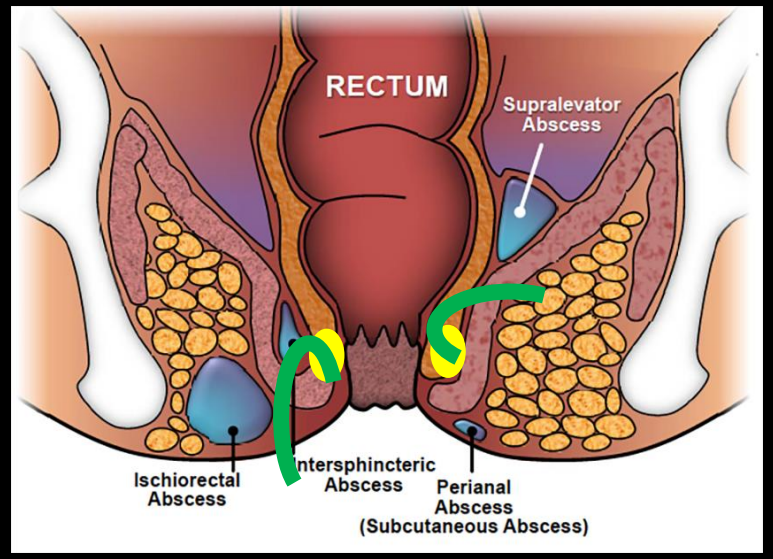


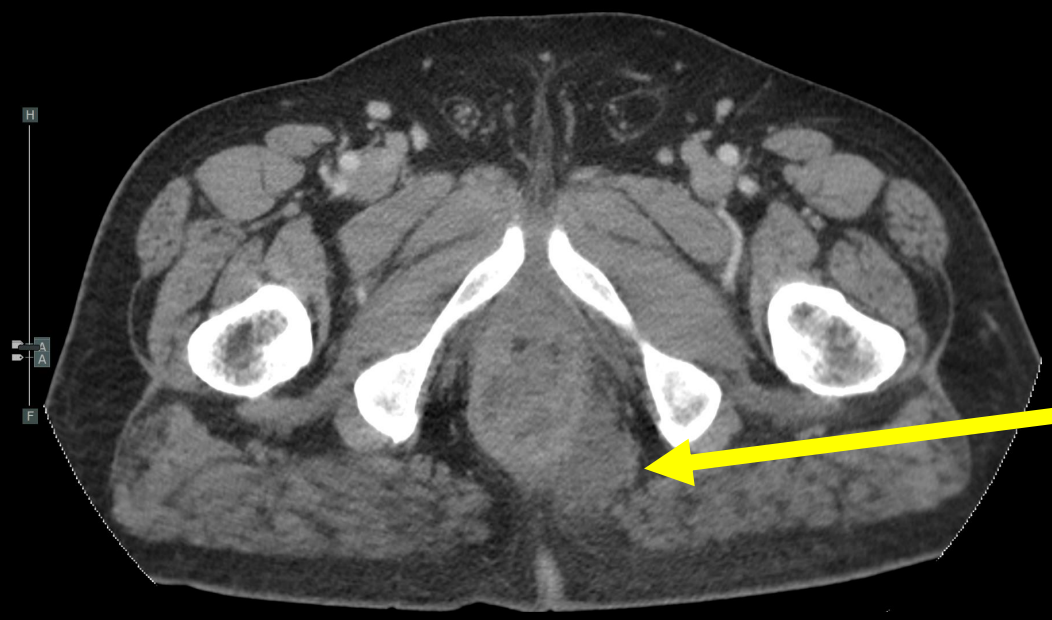


Perianal fistula (PAF) + Abscess (IS)

- Two theories of cause of PAF
  - Cryptogenic (90%) : Non-specific obstruction and subsequent infection of the glandular crypts
  - Secondary: Inflammatory bowel disease, Crohn's disease, trauma, malignancy

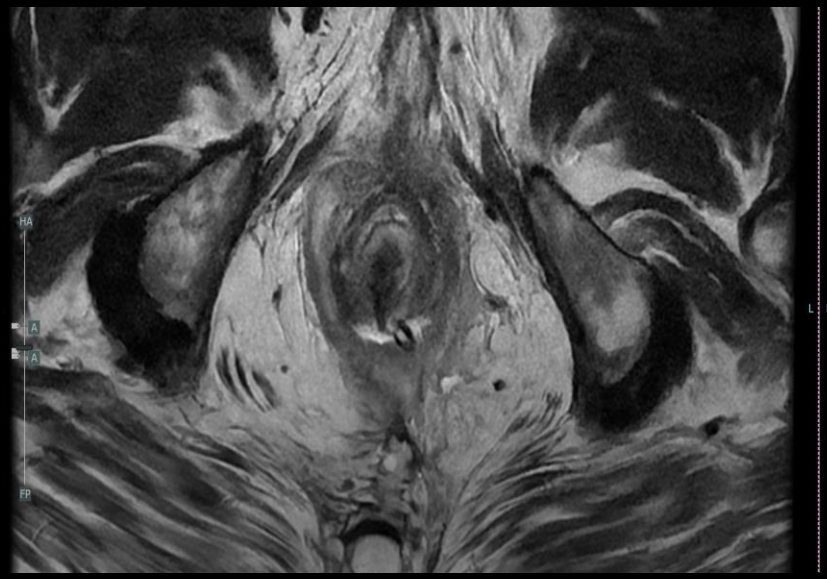
•grade 1: simple linear **intersphincteric**.
•grade 2: intersphincteric with abscess or secondary tract.
•grade 3: **transsphincteric**.
•grade 5: supralevator and translevator extension
•grade 4: transsphincteric with abscess or secondary tract within the ischiorectal fossa.

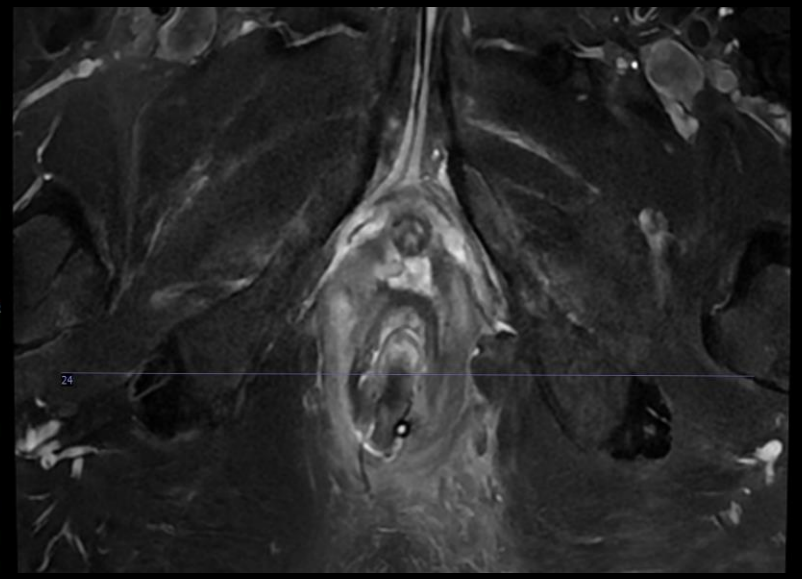


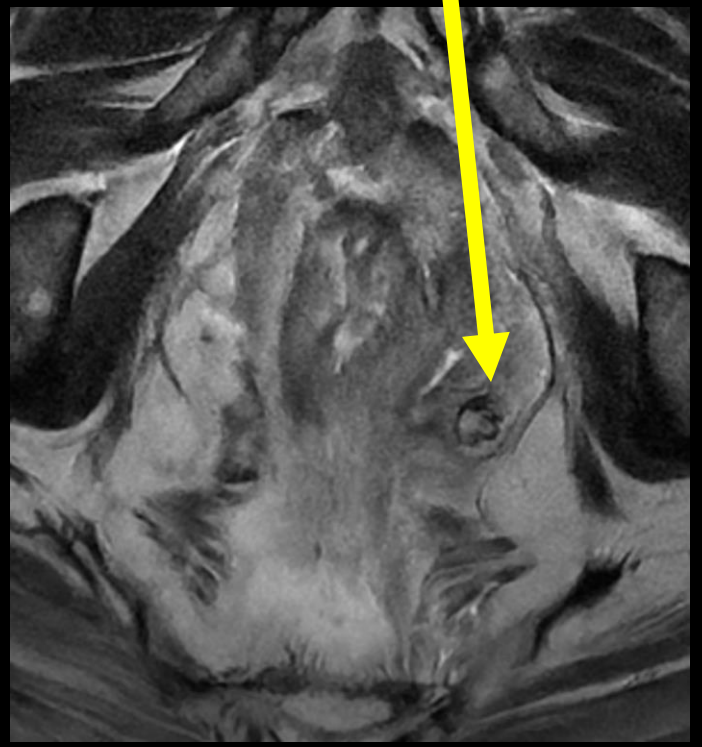


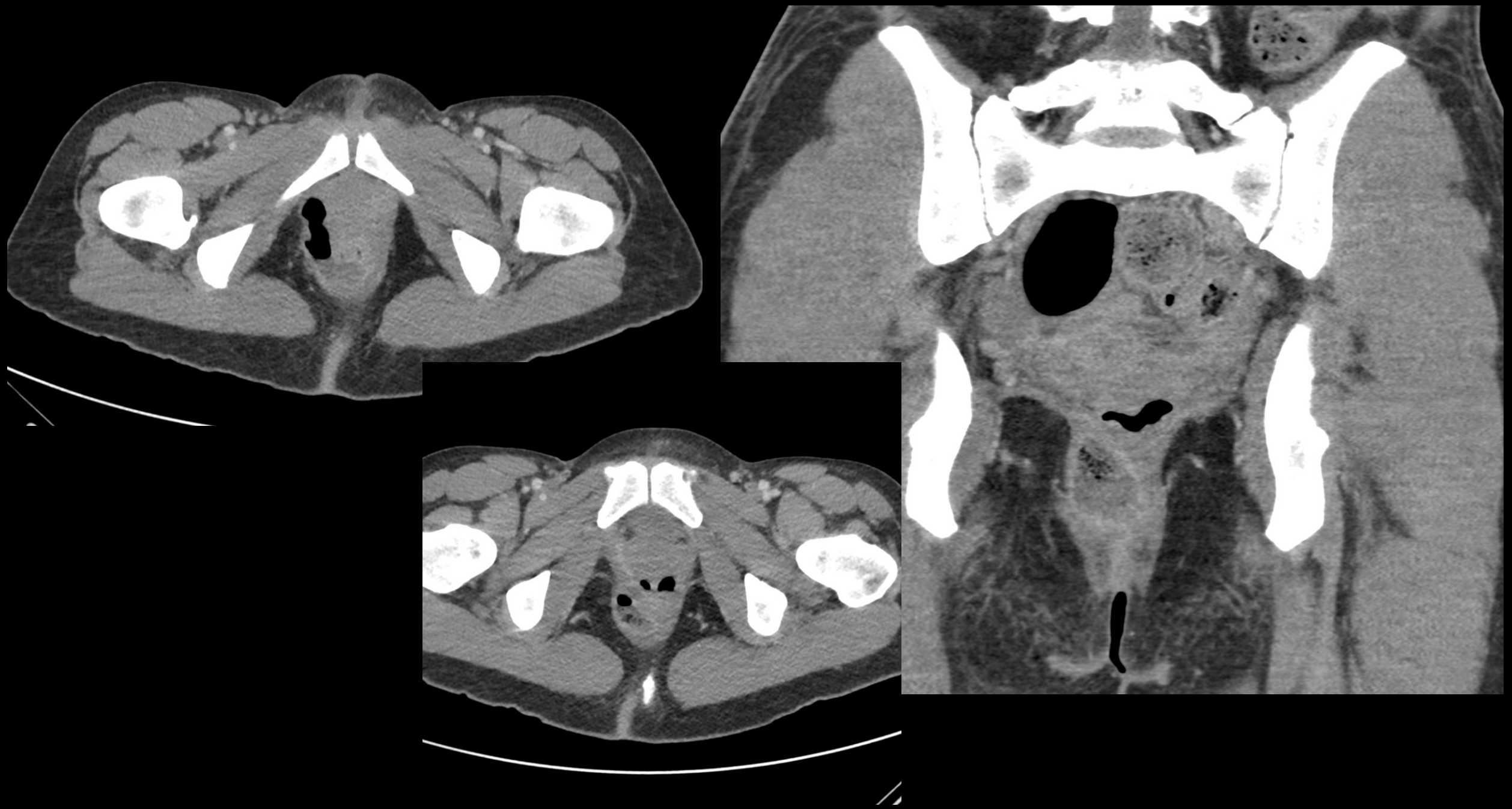
Intersphincteric with abscess +

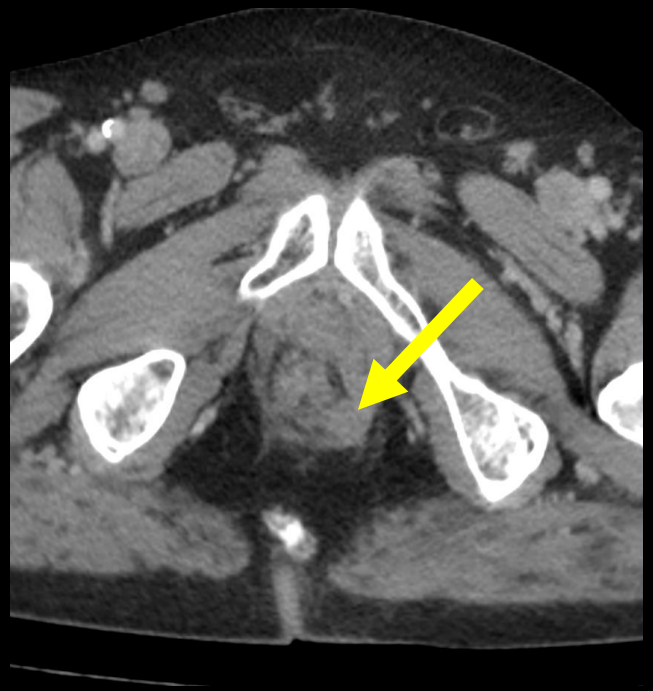
Transsphincteric with abscess

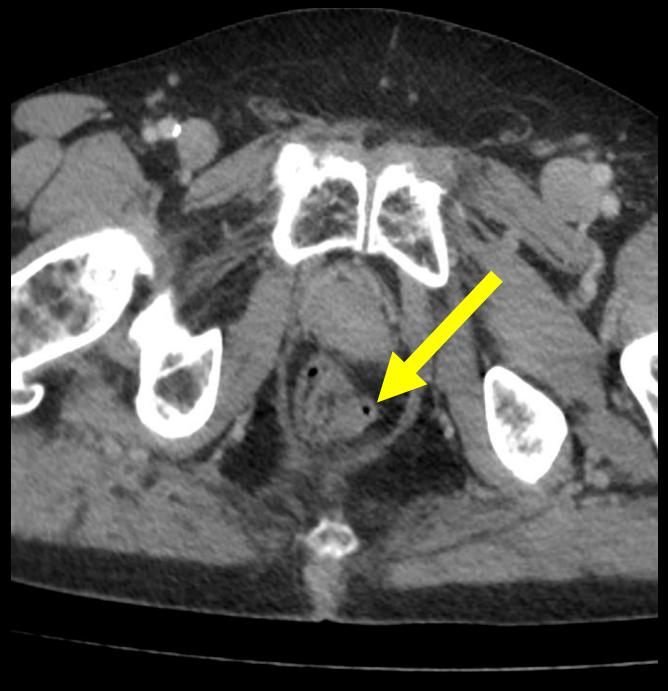


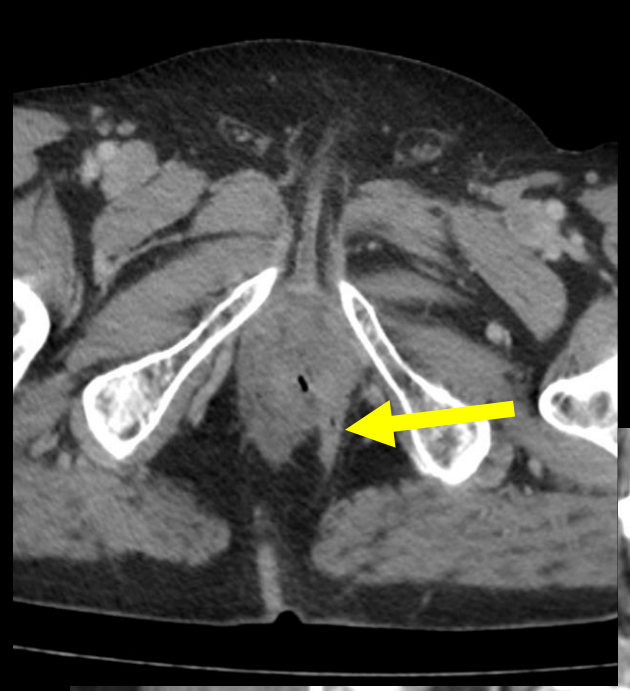


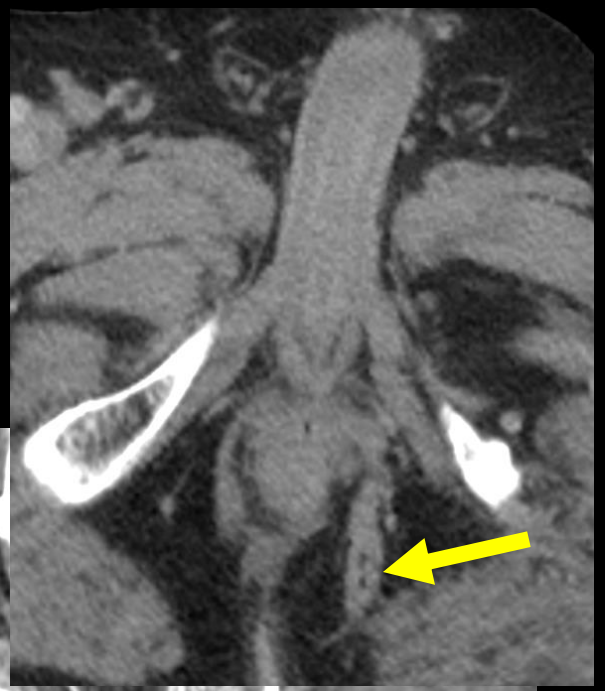






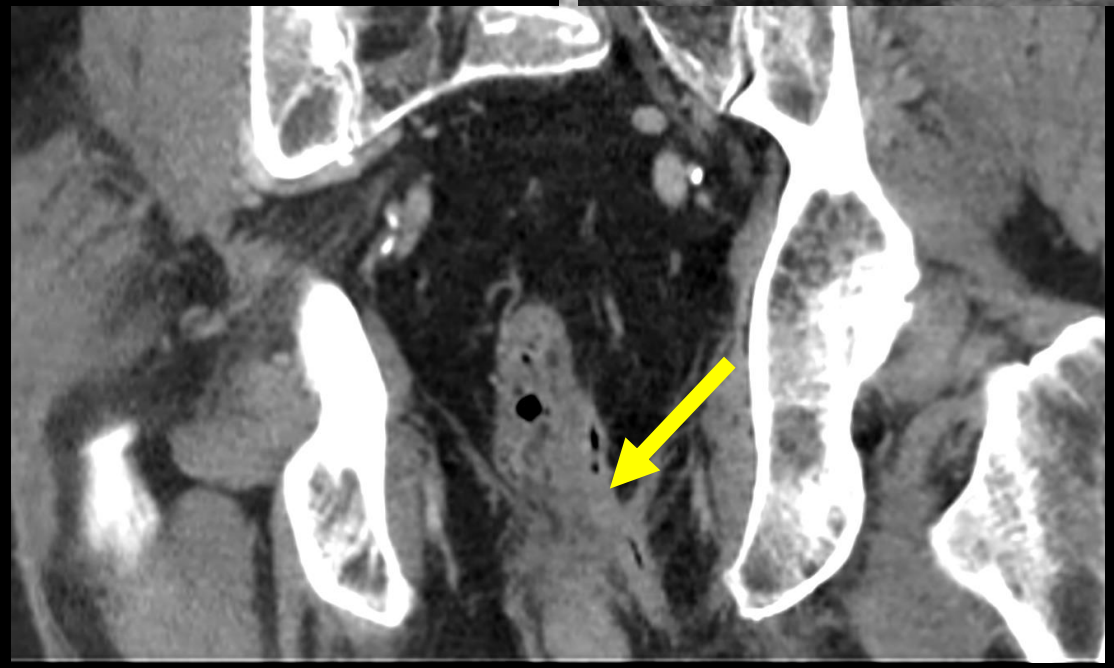






Anorectal fistula extending from the left lateral anorectal junction into the left perirectal fat.

No abscess or inflammatory changes are seen.



Treatment

Non surgical:

- Seton
- Fibrin Glue + Collagen Plug
- Medication

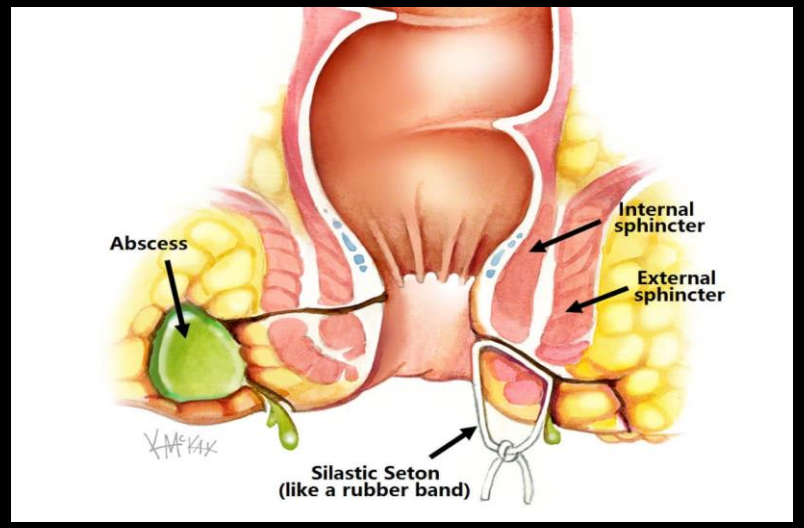


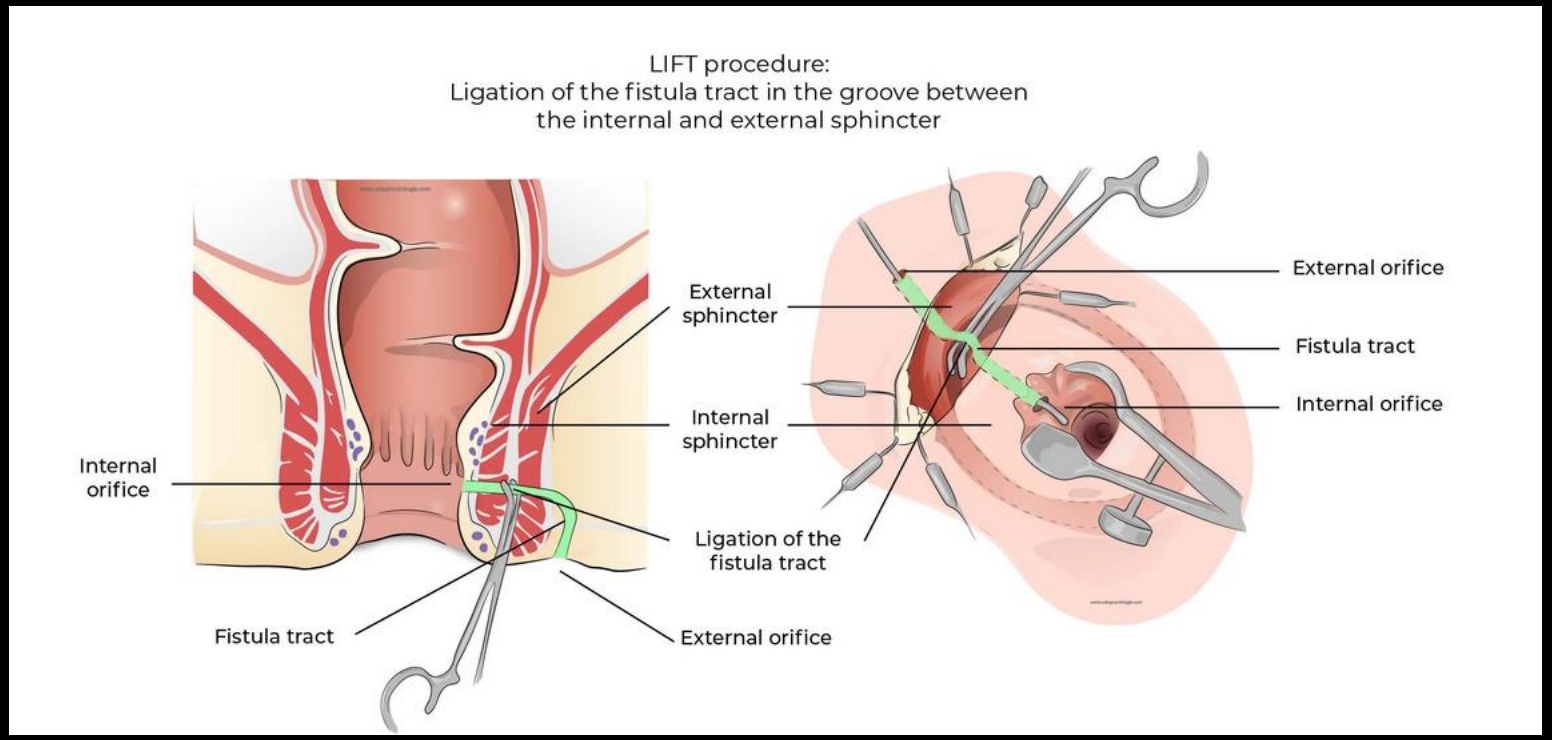
Image: Fistula Repair | Colorectal Surgeons Sydney

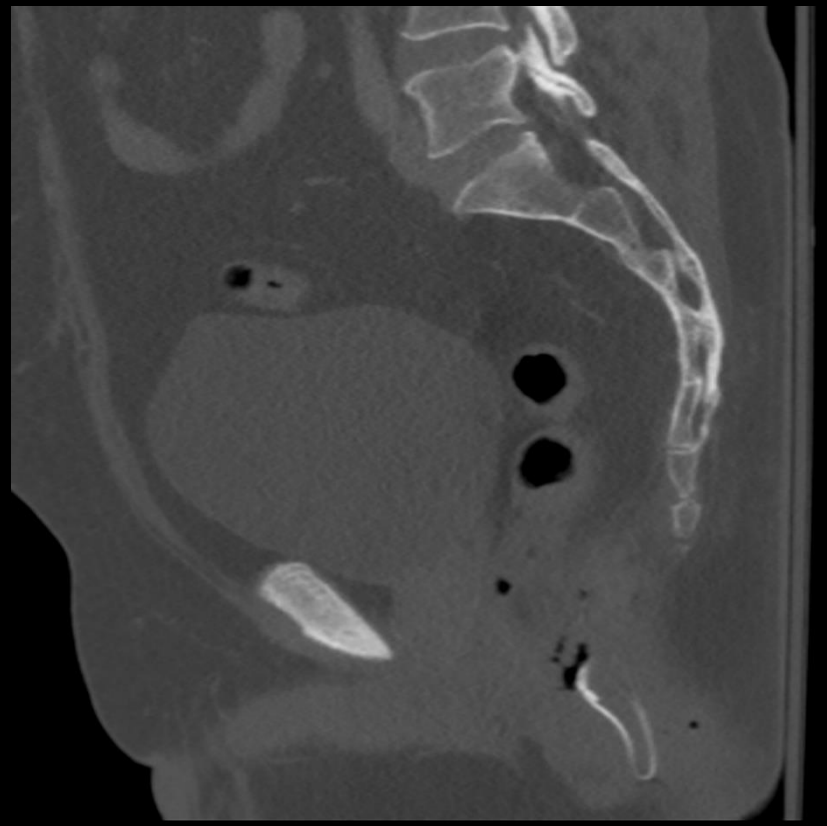
Pezzer Catheter (Image : BD.com)

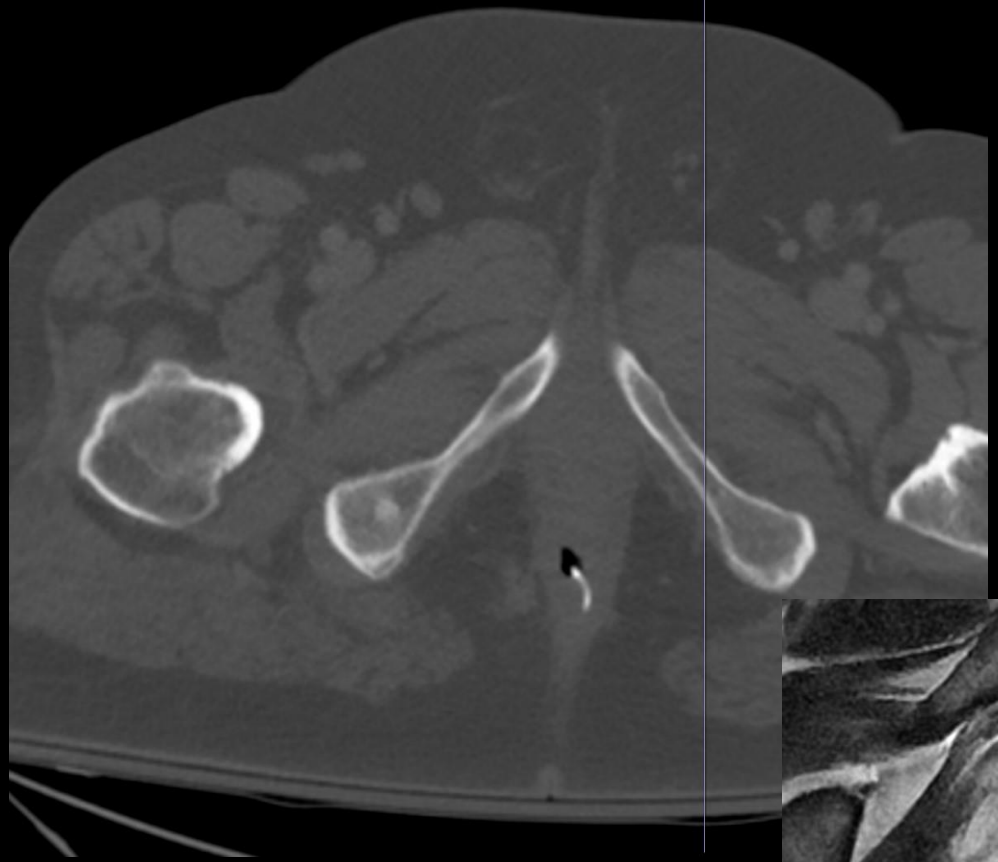
Surgical:

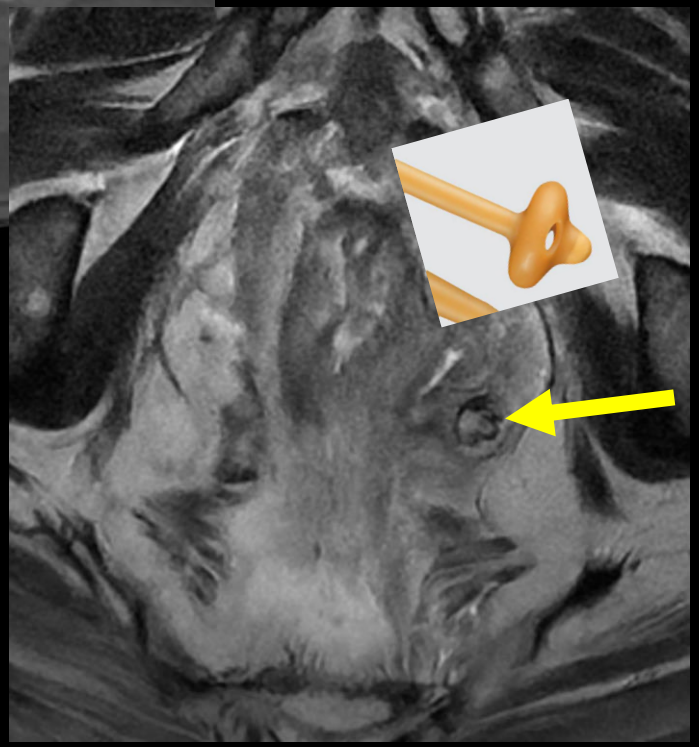
- Fistulotomy
- LIFT procedure: Ligation of the intersphincteric fistula tract

- Ostomy and stoma/ diversion
- Muscle flap reconstruction





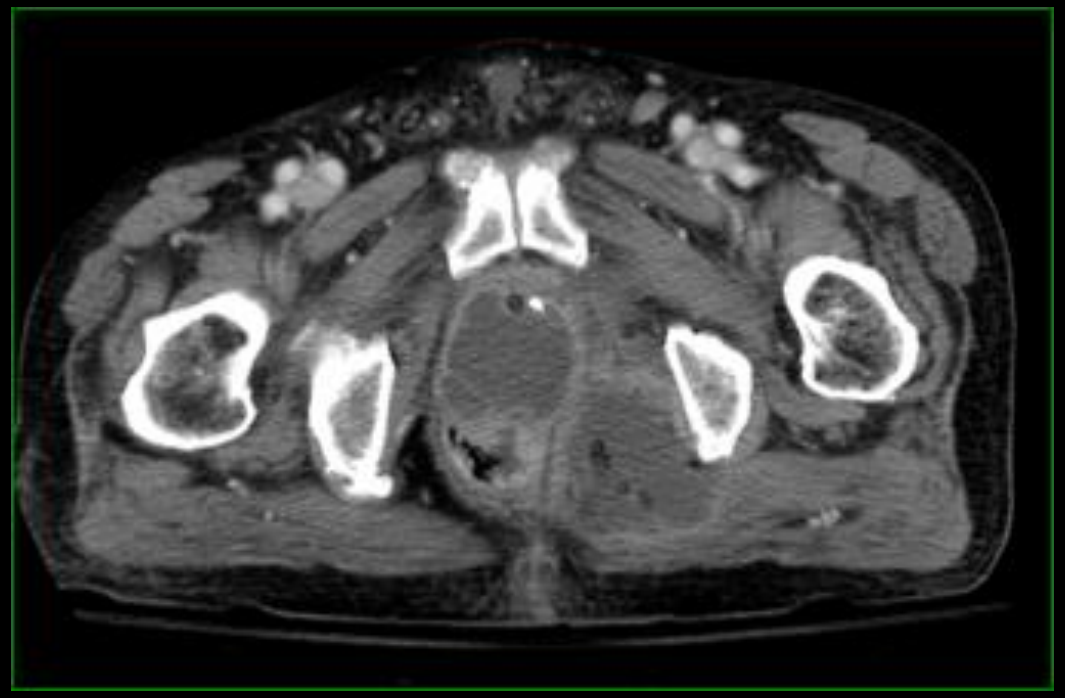


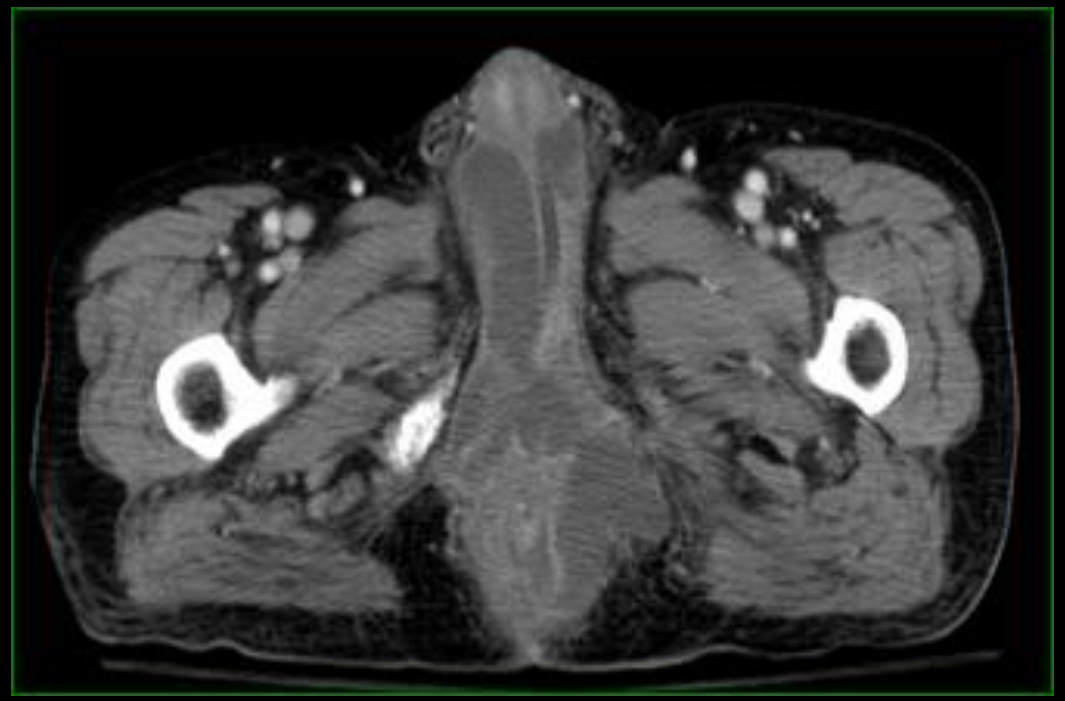


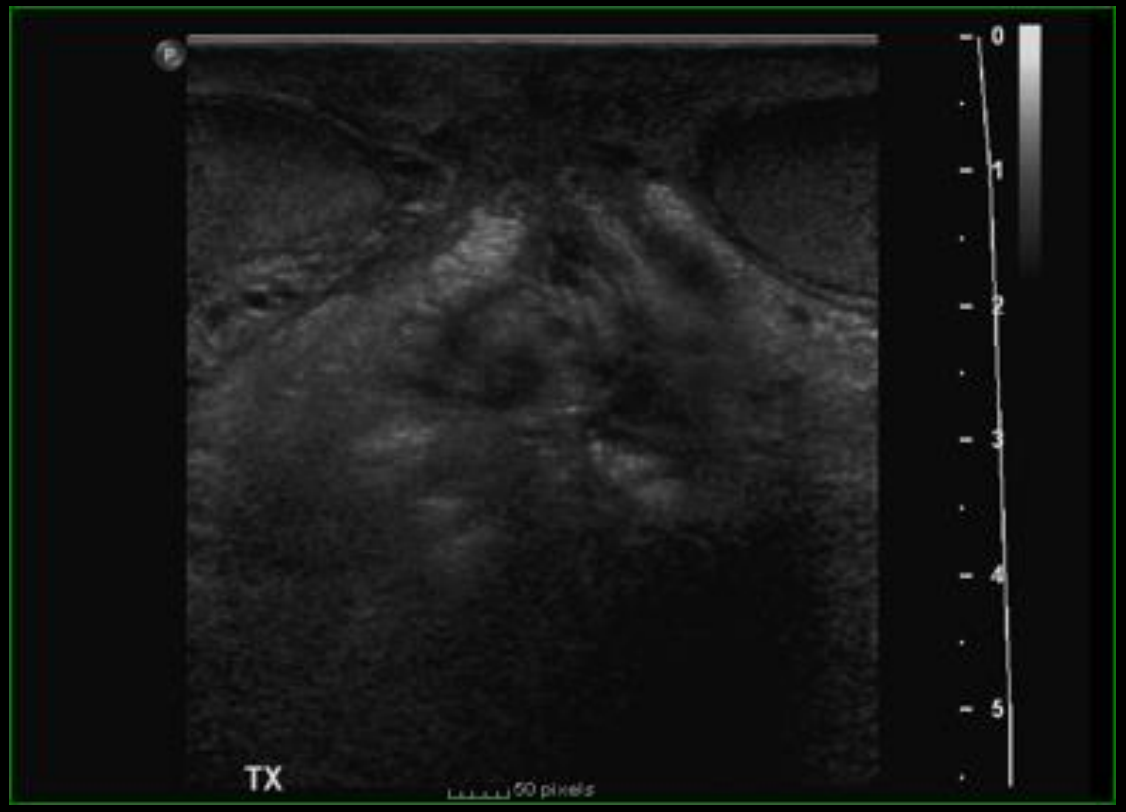
Fournier's gangrene

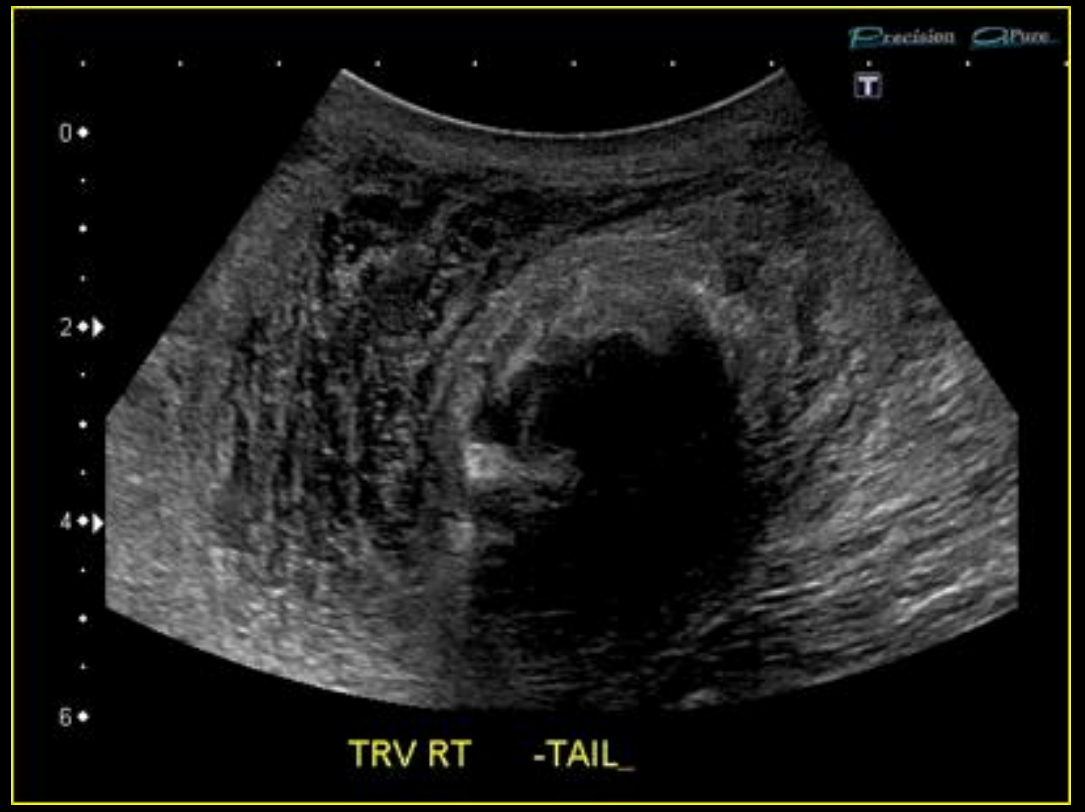
- Necrotizing fasciitis: perineal, genital, **or perianal area**
- Cultures from the wounds often are poly microbial infections by aerobes + anaerobes, (on an average *at least* 3 organisms cultured)

- CT is instrumental for confirming the diagnosis and determining the extent of the infectious process prior to surgery.

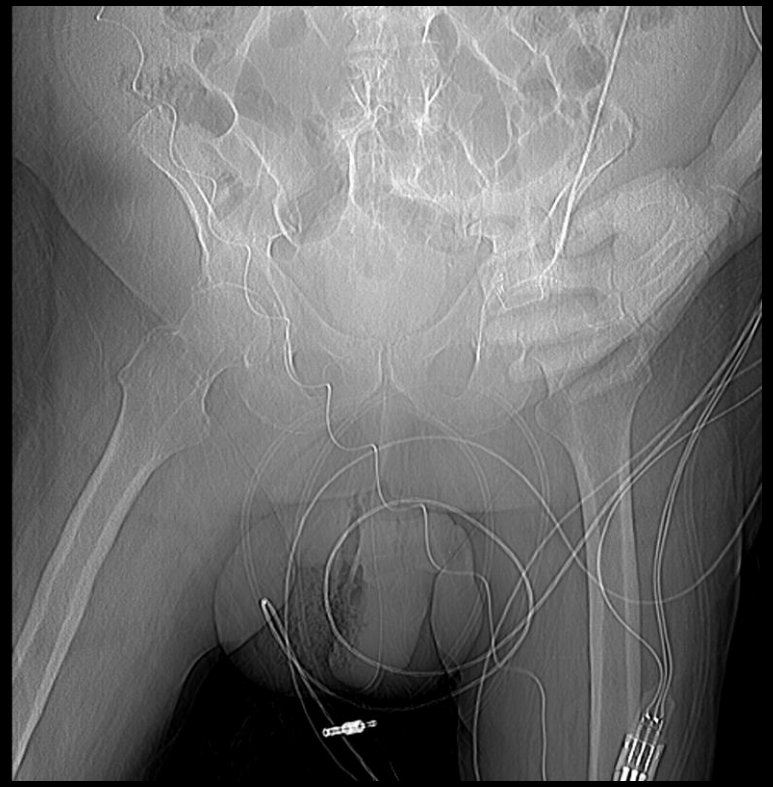


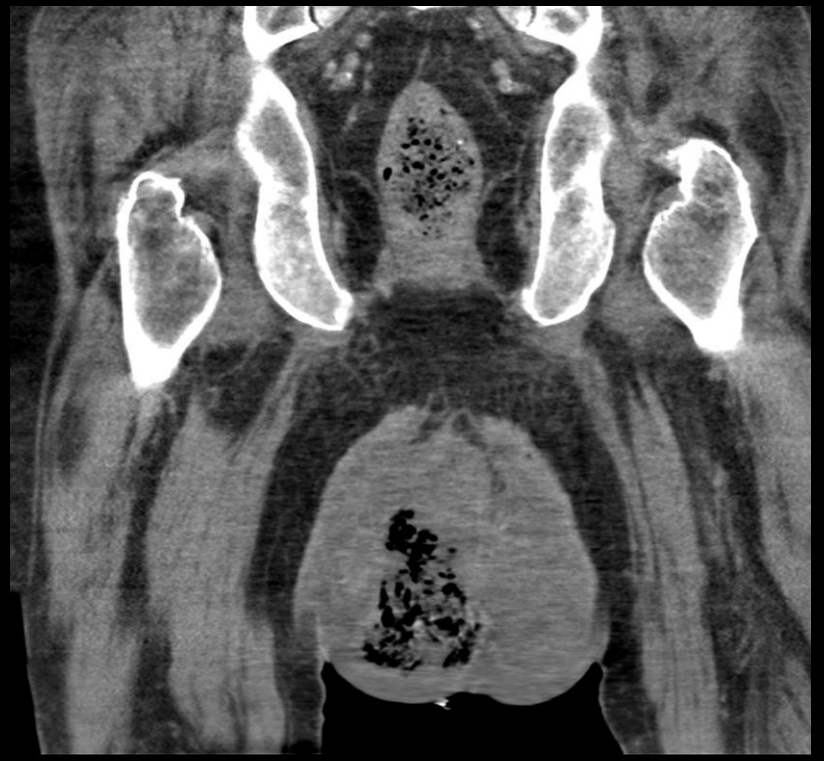


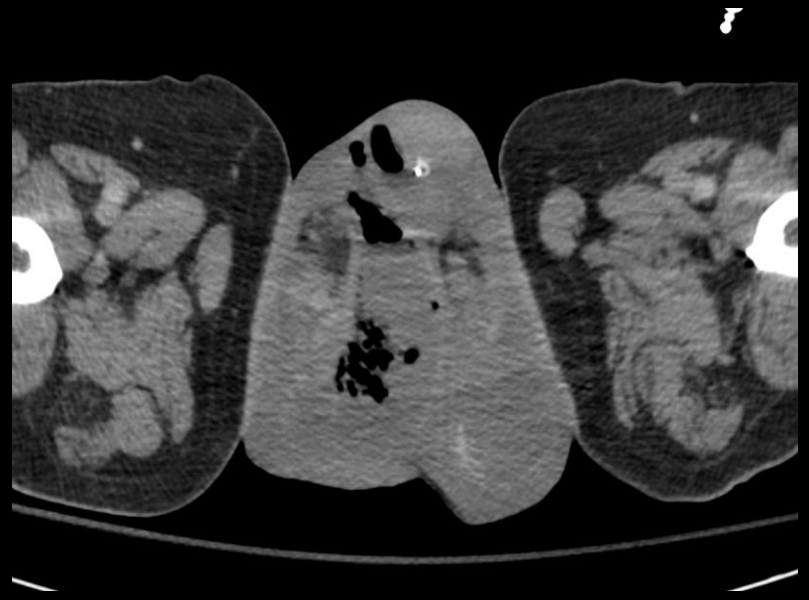


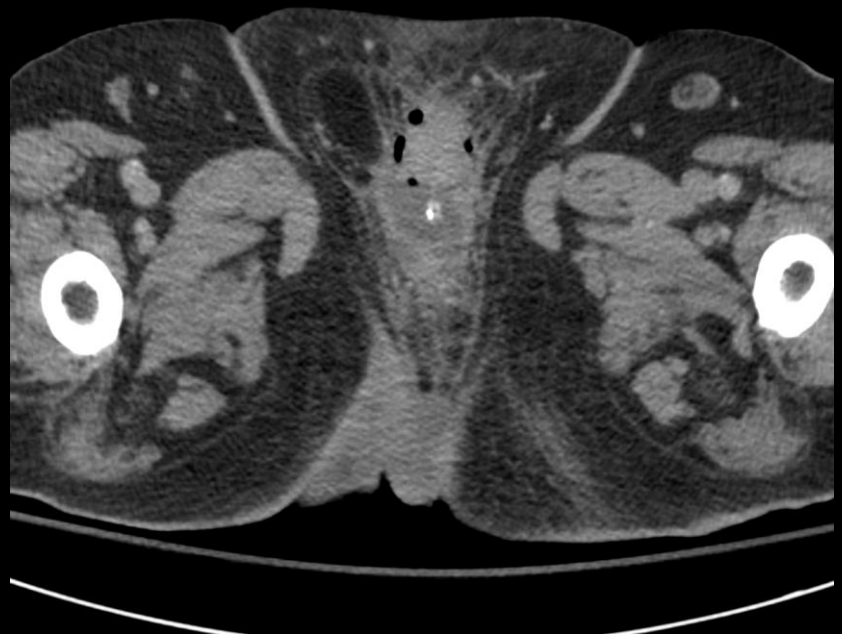


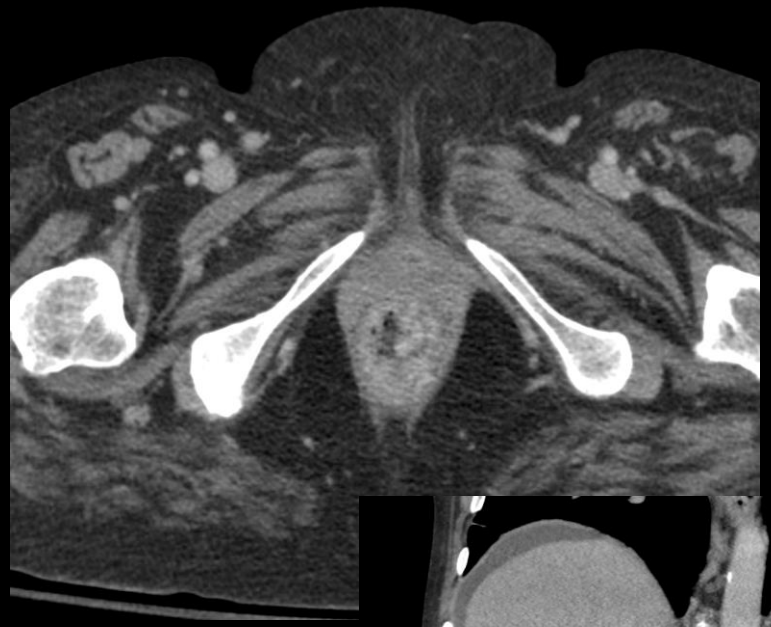
- US diagnosis maybe difficult in early or mild cases but presence of gas is pathognomonic

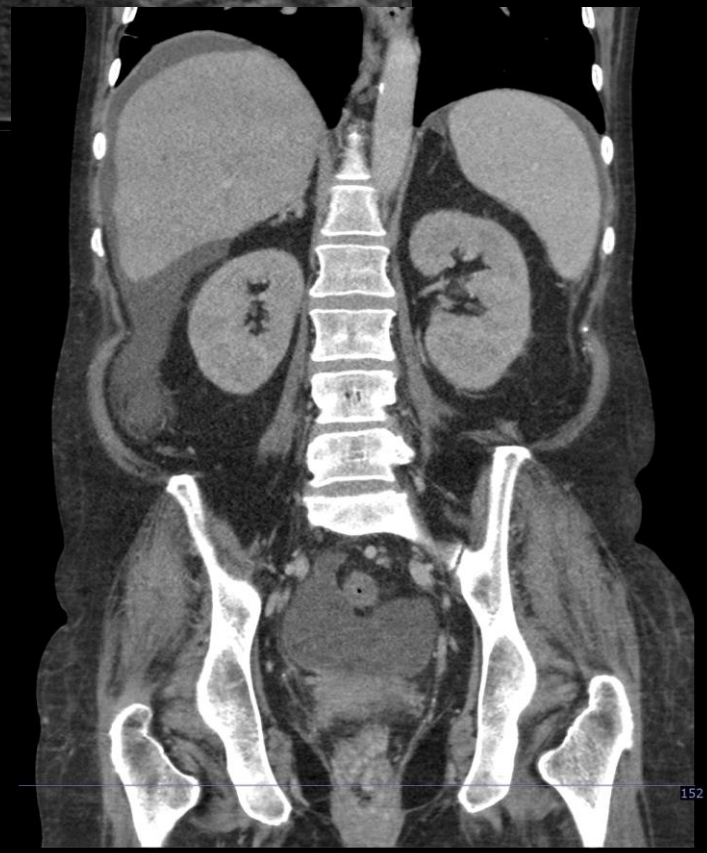












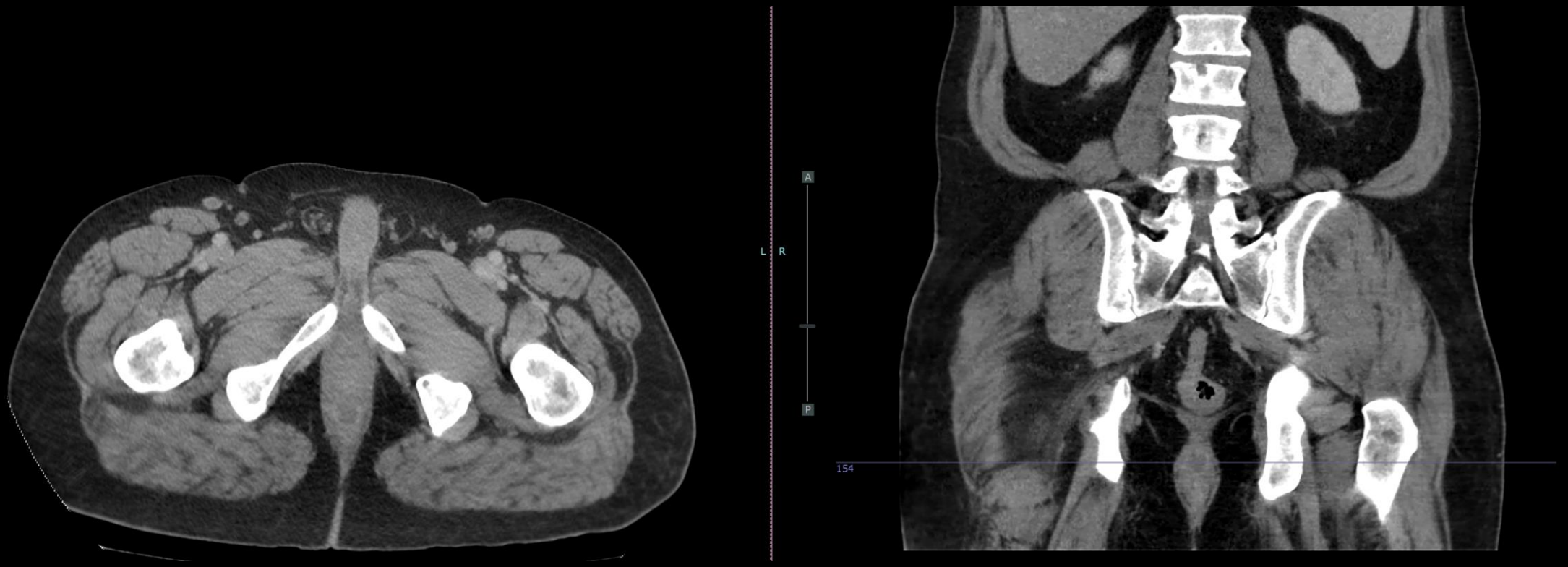
Rectal Varices

- Complication of portal hypertension
- Bleeding from rectal varices *can be life threatening*

- TIPS
  - TIPS+ Embolization to occlude the feeding vein to the rectal varices.
  - Embolization +/- band ligation or TIPS
  - When used alone= high 1 year rebleeding

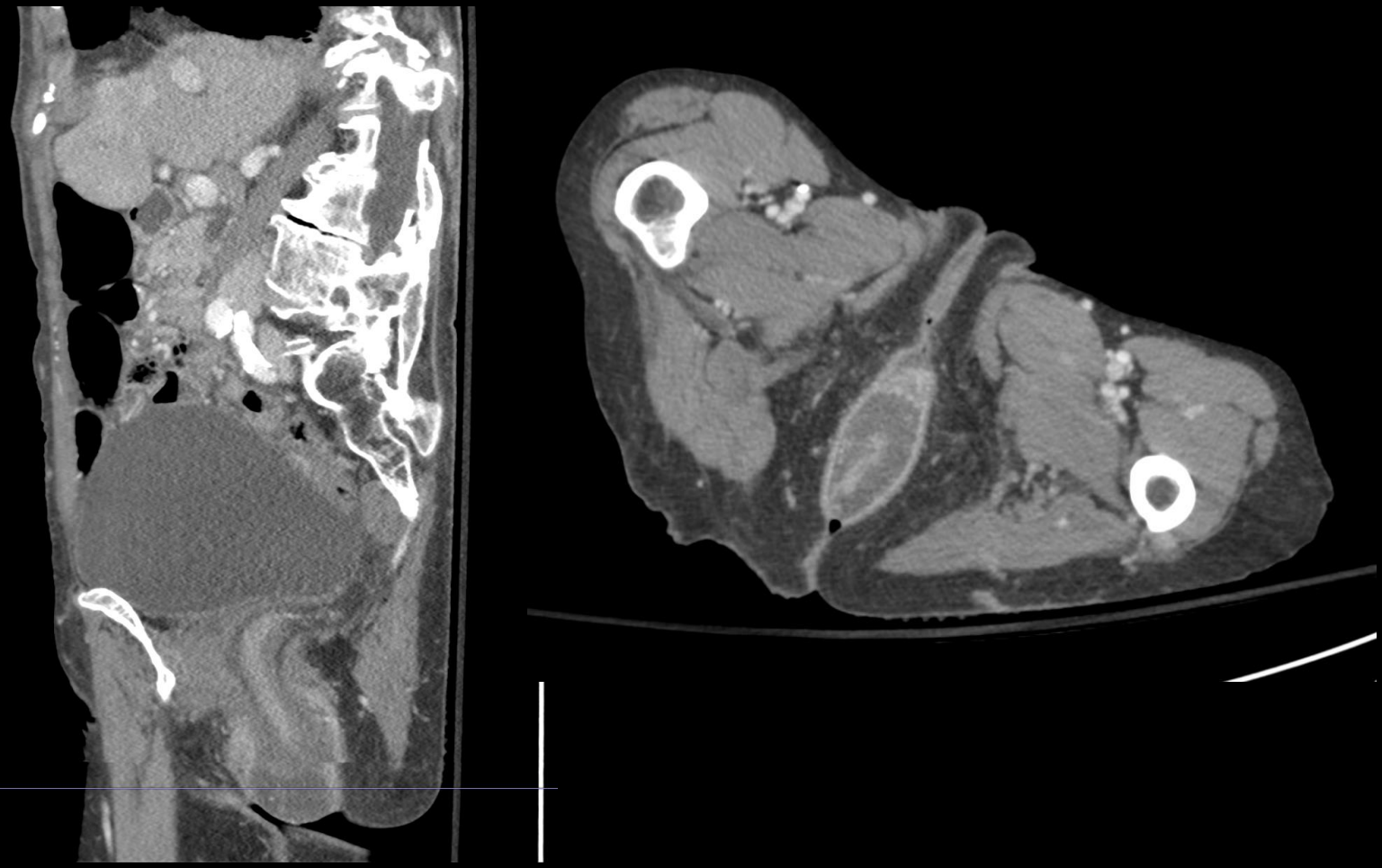
- Embolization materials: coils, gelfoam, thrombin, collagen, autologous blood clot and ethanol
- Endoscopic injection sclerotherapy, banding /ligation

Thrombosed Rectal Varices



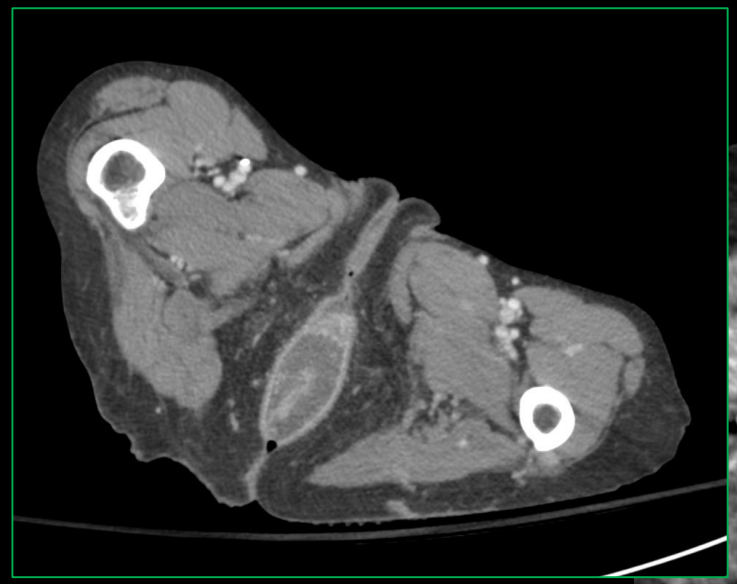
Oblong peripherally enhancing mass distal rectum/anal region, differential includes could represent a thrombosed hemorrhoid.
Exclude: Infection

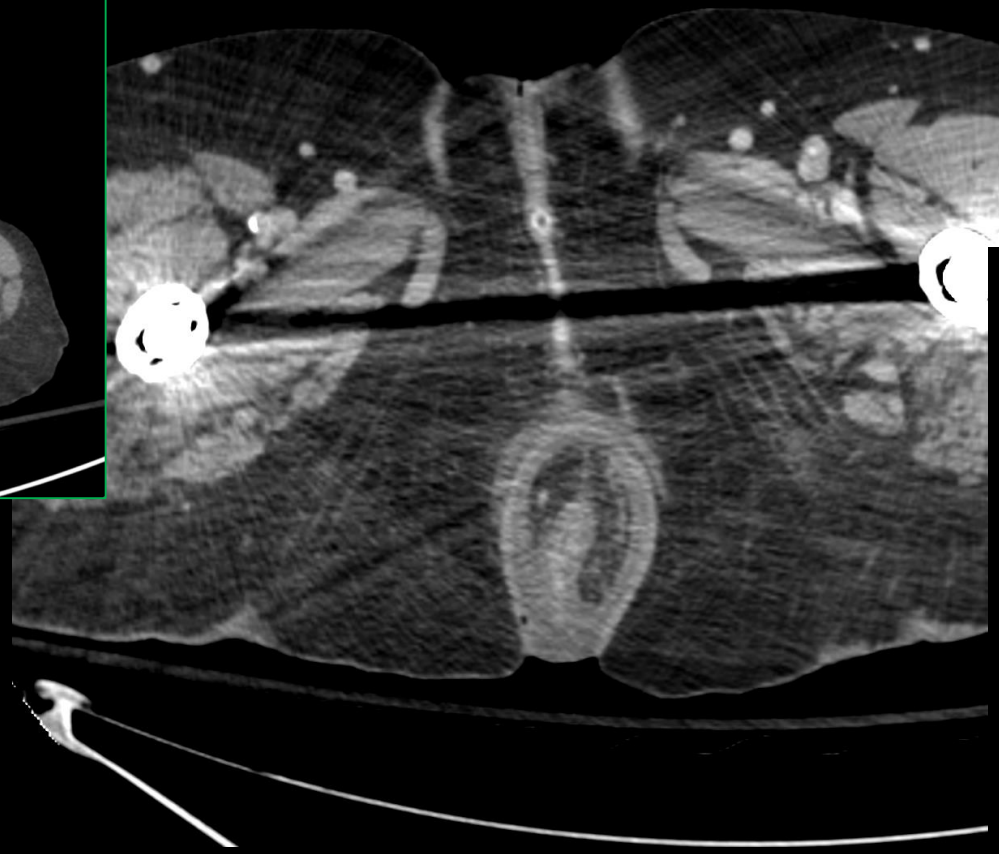
Rectal Prolapse

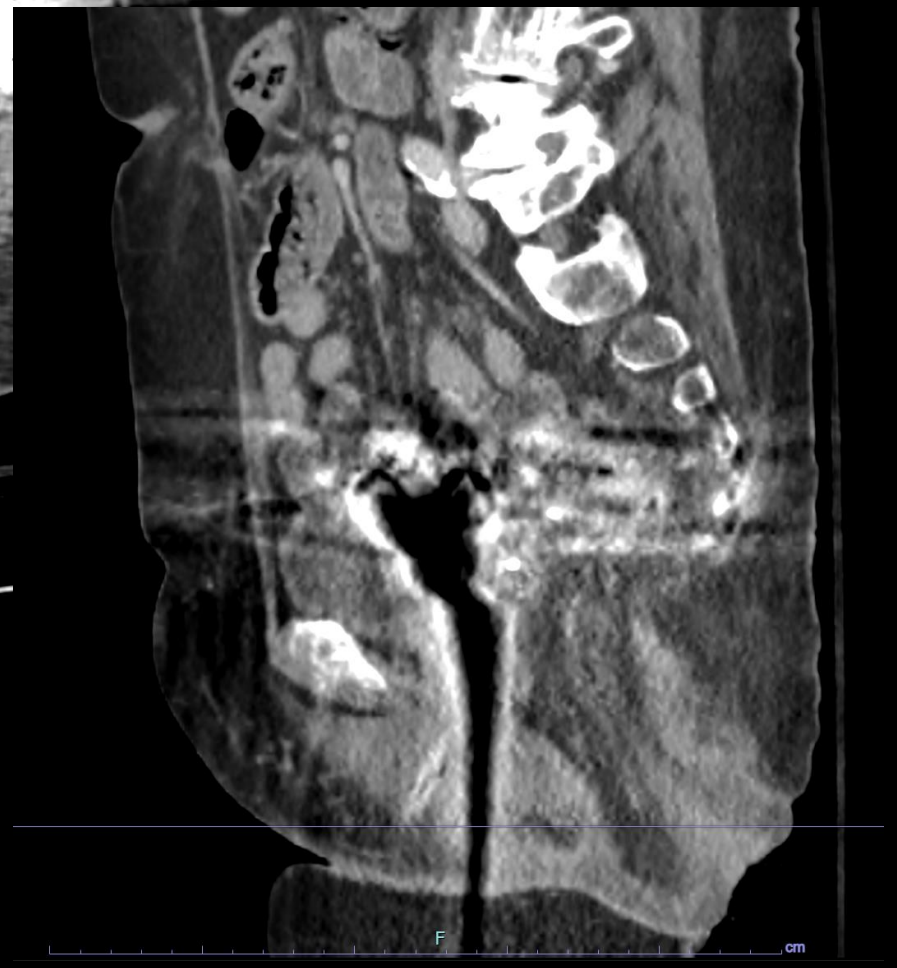


Rectal Prolapse -> Incarcerated (physical Dx) based on NOT REDUCIBLE

Elderly female patients
Often can be reduced manually by gentle pressure
If ischemia is present: perineal proctosigmoidectomy

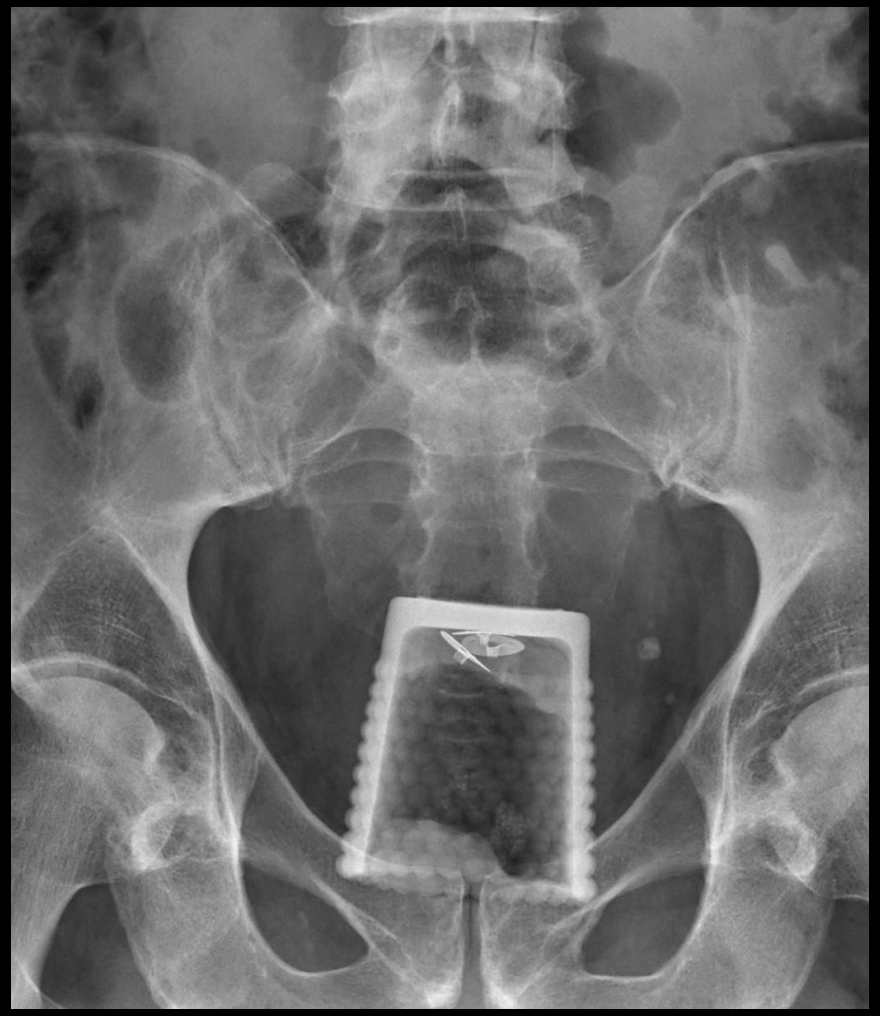


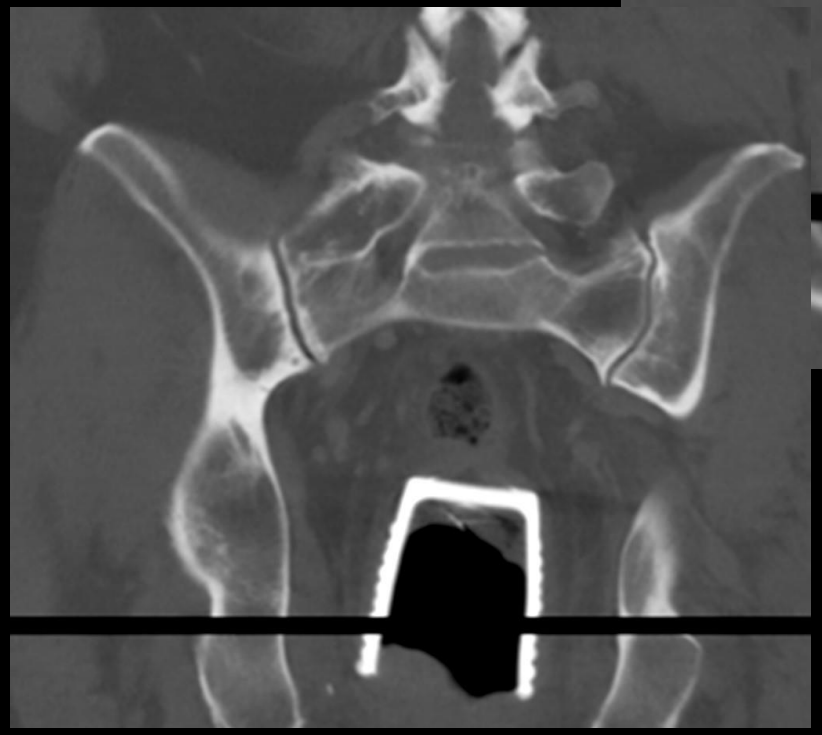


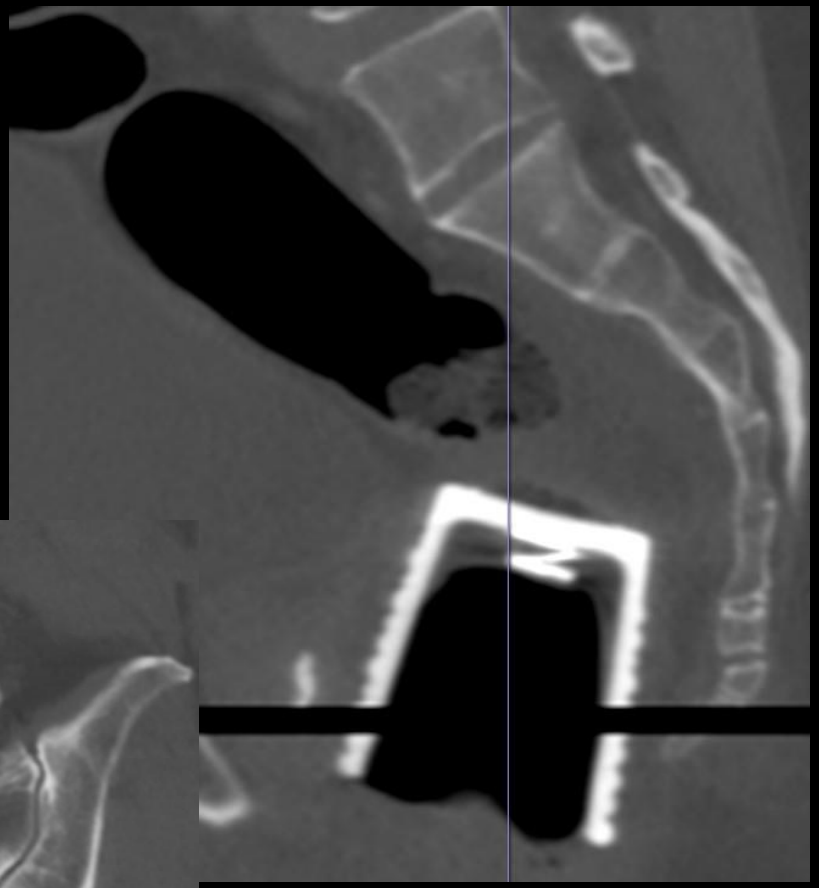


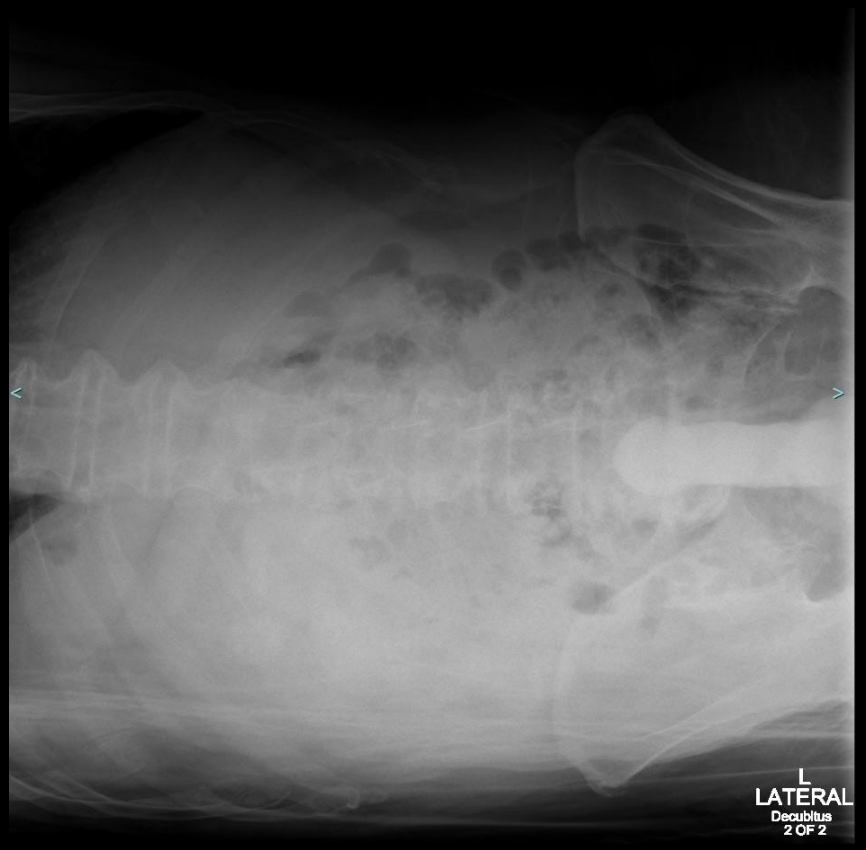
Severe rectal prolapse with surrounding perirectal fat extending approximately 9 cm below pelvic floor

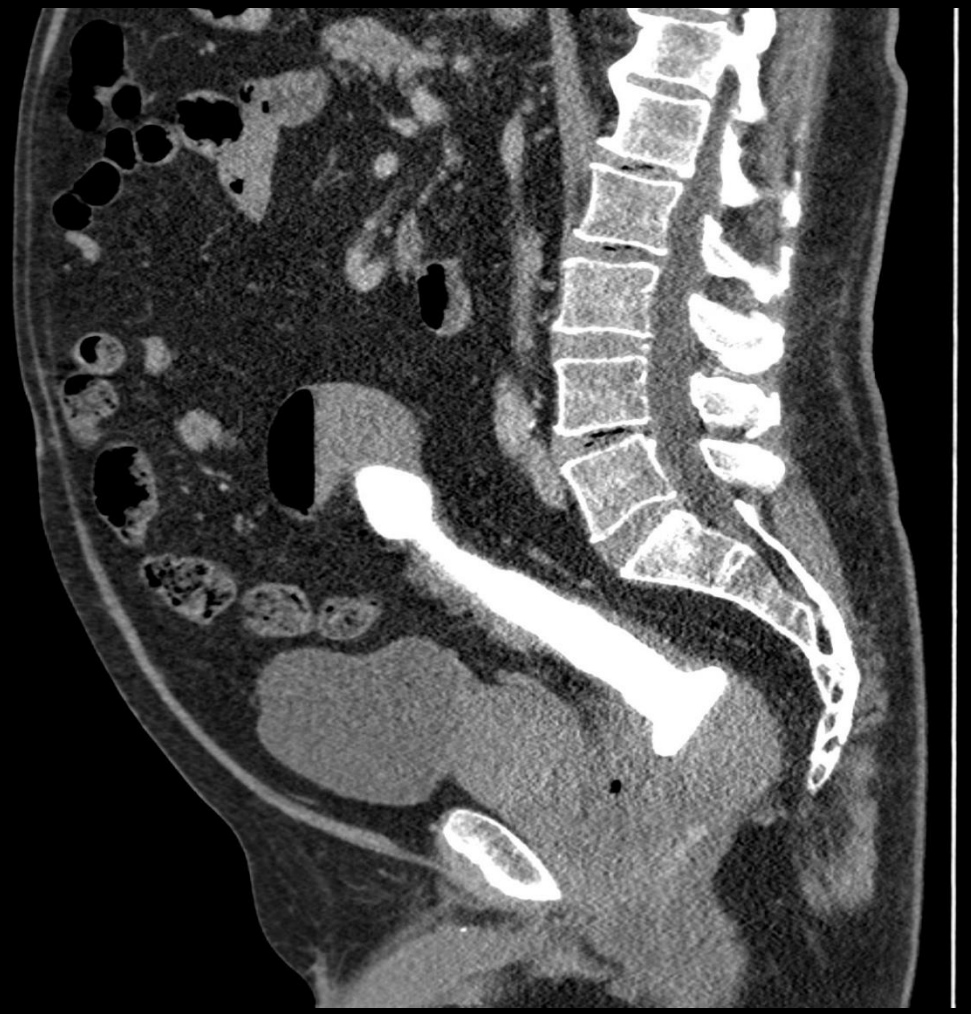
Rectal Foreign Bodies











>>> physiological distensibility of the rectum and sigmoid colon. Significant injury and perforation is uncommon

Take-home points

- Clinical Exam #1 (MANY diagnosis do not need imaging)
- In infection : extend CT FOV, repeat imaging = pelvis-only
- MRI for complex peri-anal abscesses and fistulas
- Fournier's gangrene : Complex polymicrobial infection, special populations, extent for surgical planning -> repeat CT
- Prolapse: Is it edematous ? Reducible ?
- Anal FBs: History + often non-complicated