

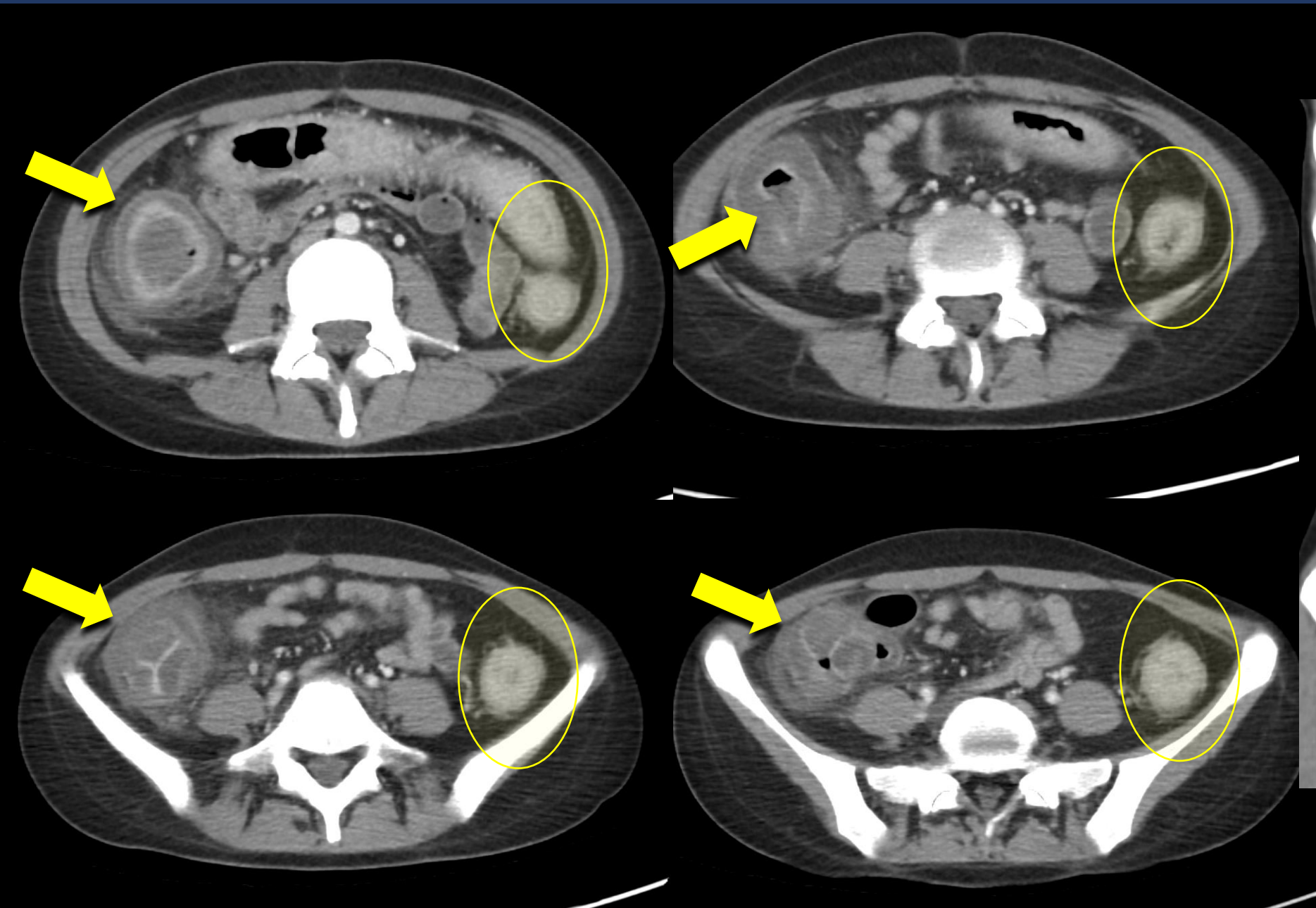
Impression, Colon: Colorectal Emergencies

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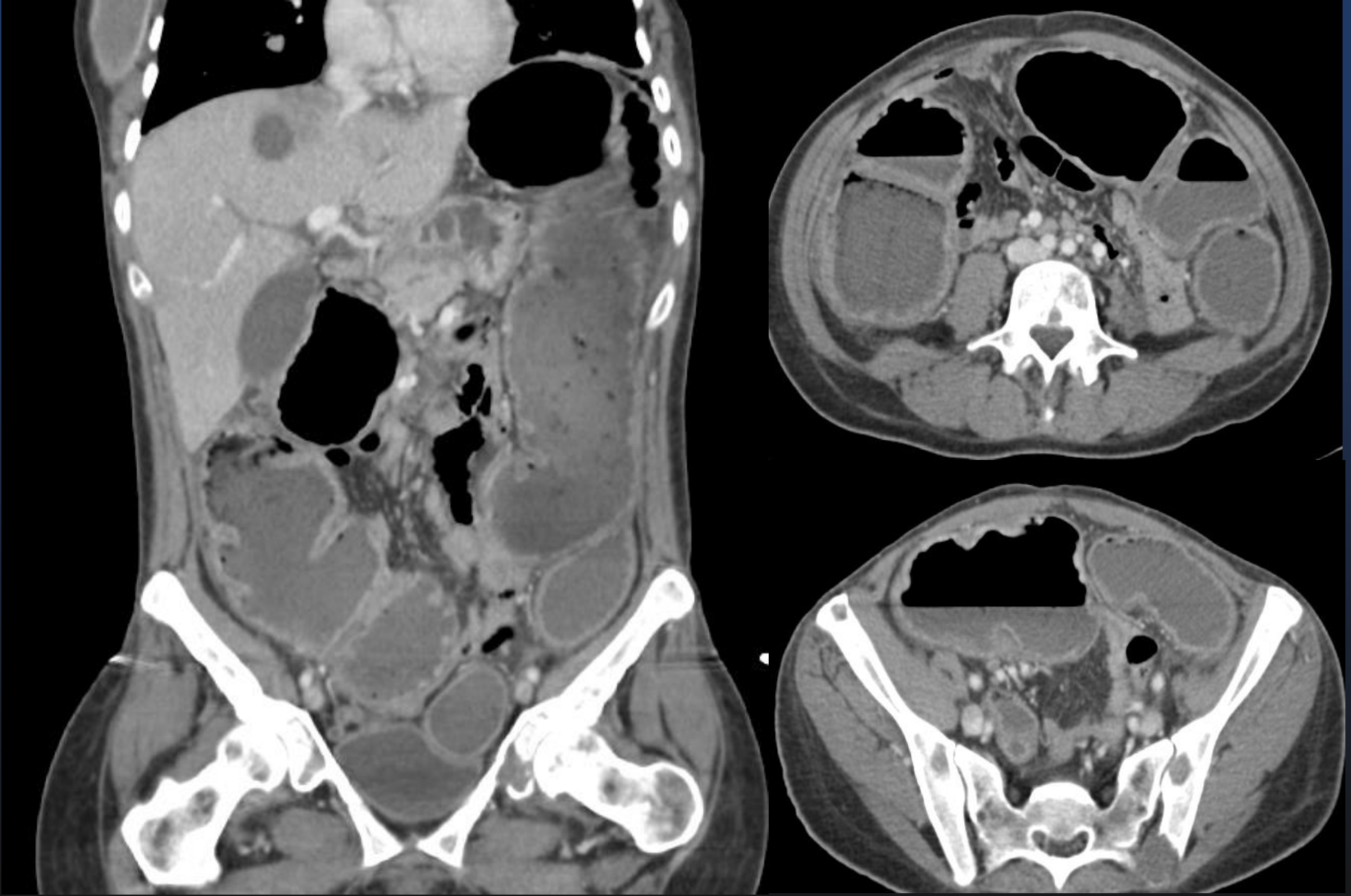
Outline

- Colonic wall thickening
- Ischemia
- Obstruction
- Perforation
- Hemorrhage



Ulcerative colitis
with C. Diff infection

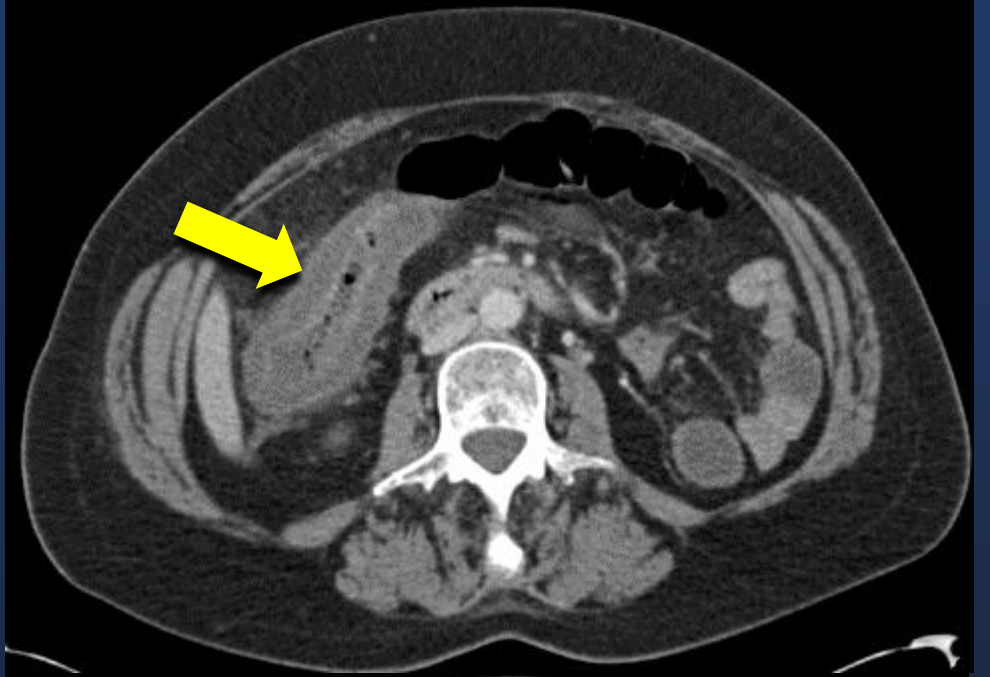




Ipilimumab Colitis

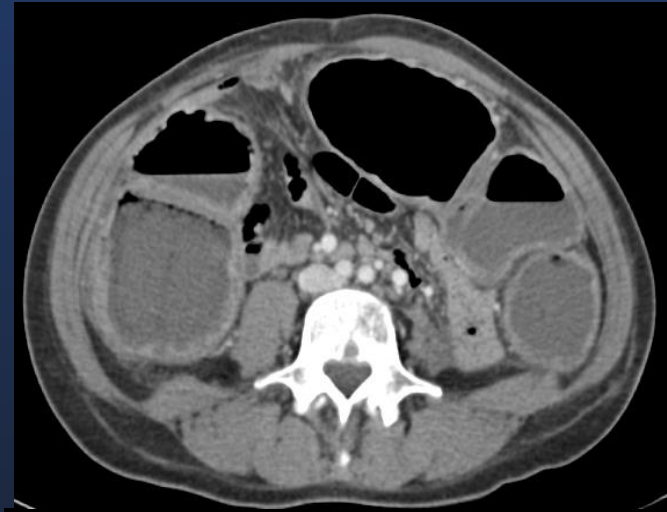


Portal Colopathy



Neutropenic Colitis

Colonic Wall Thickening – Try To Be More Specific



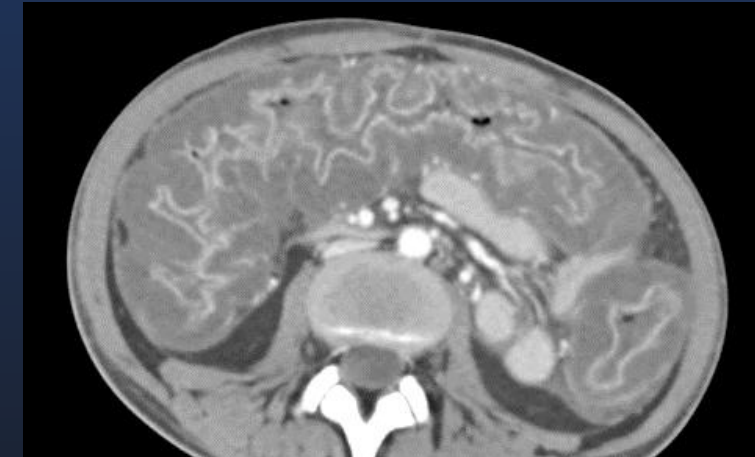
• Clinical history

• Severity



• Distribution

• Secondary findings

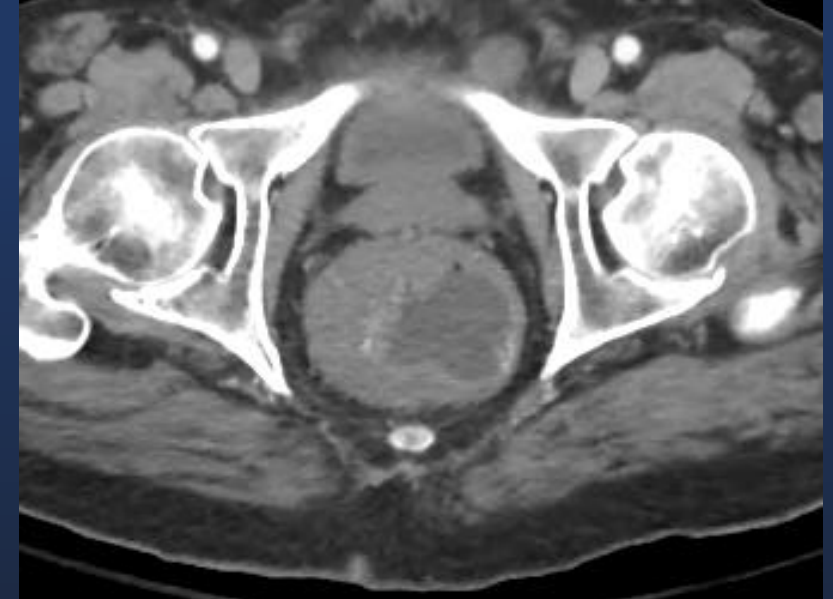




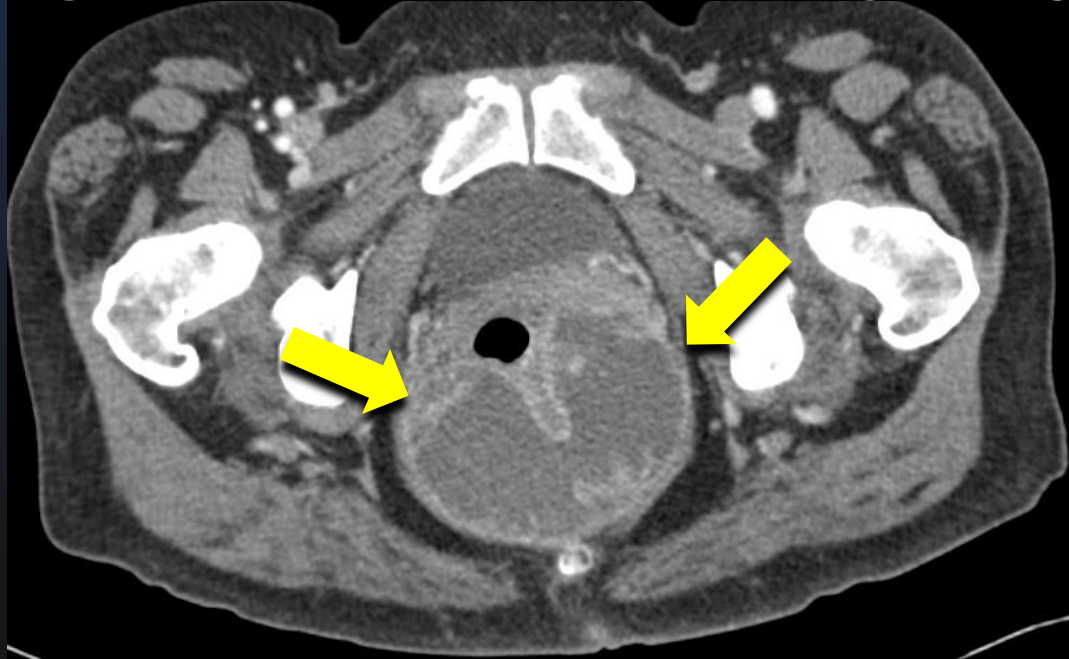
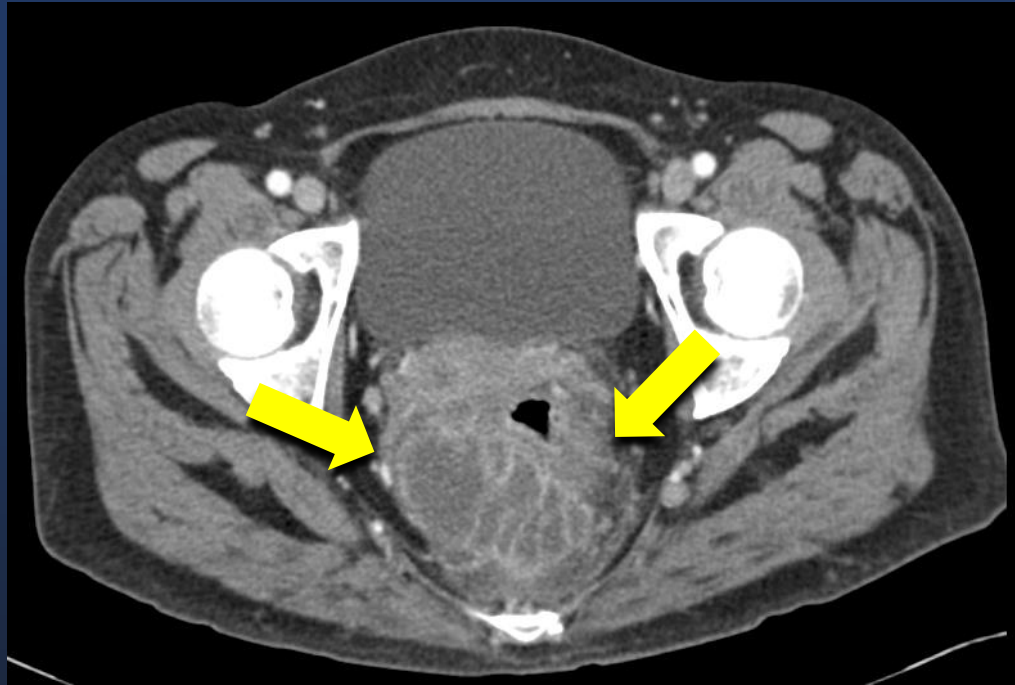
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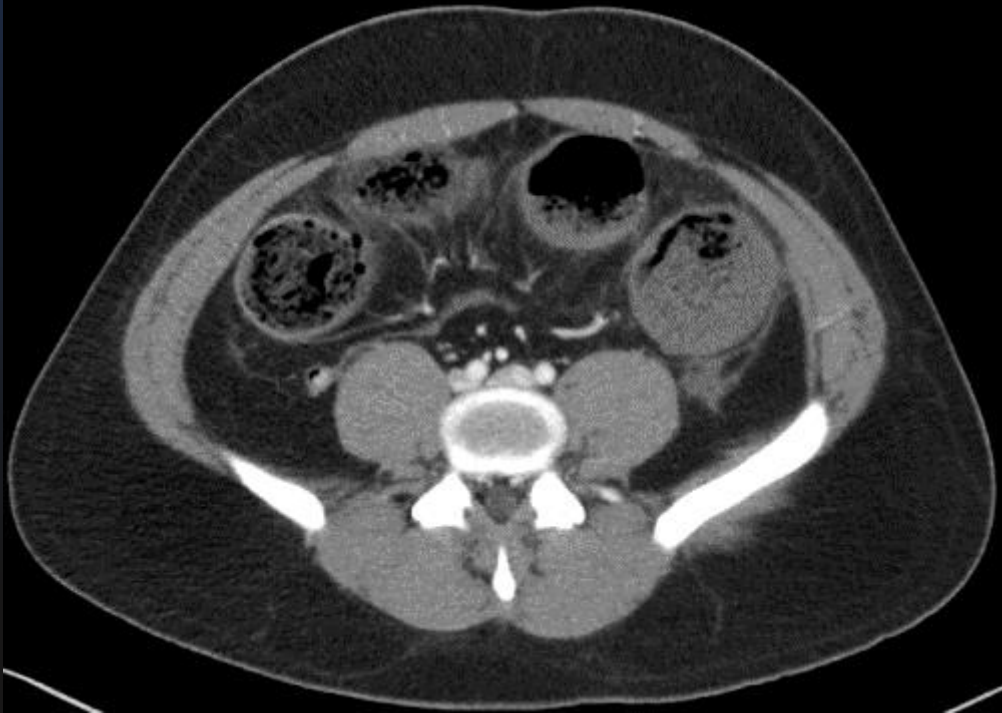
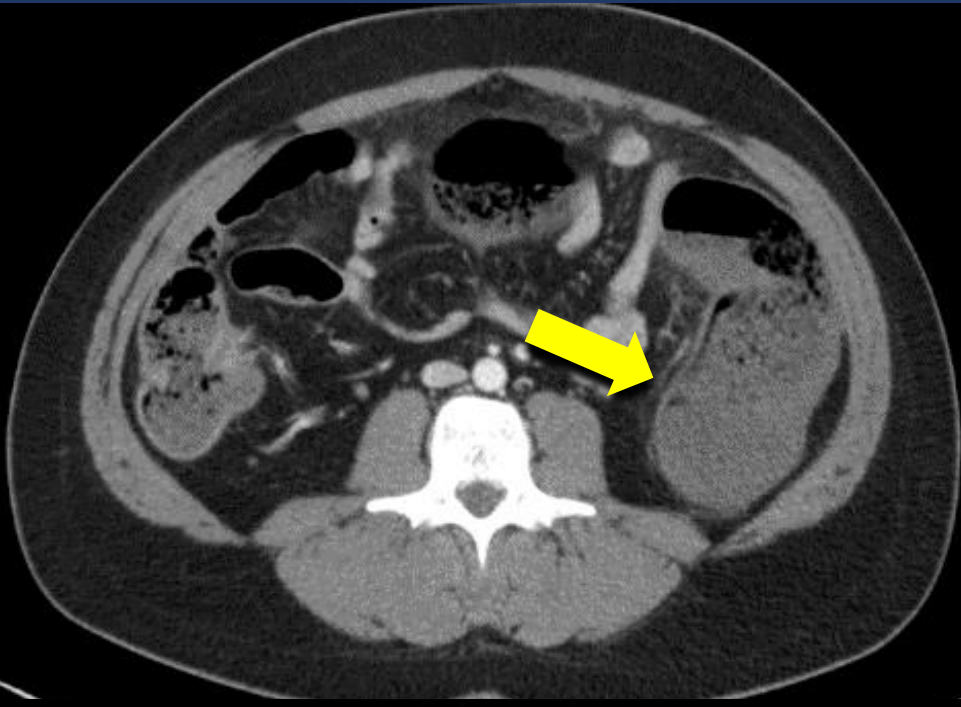
M-Pox



C. Difficile

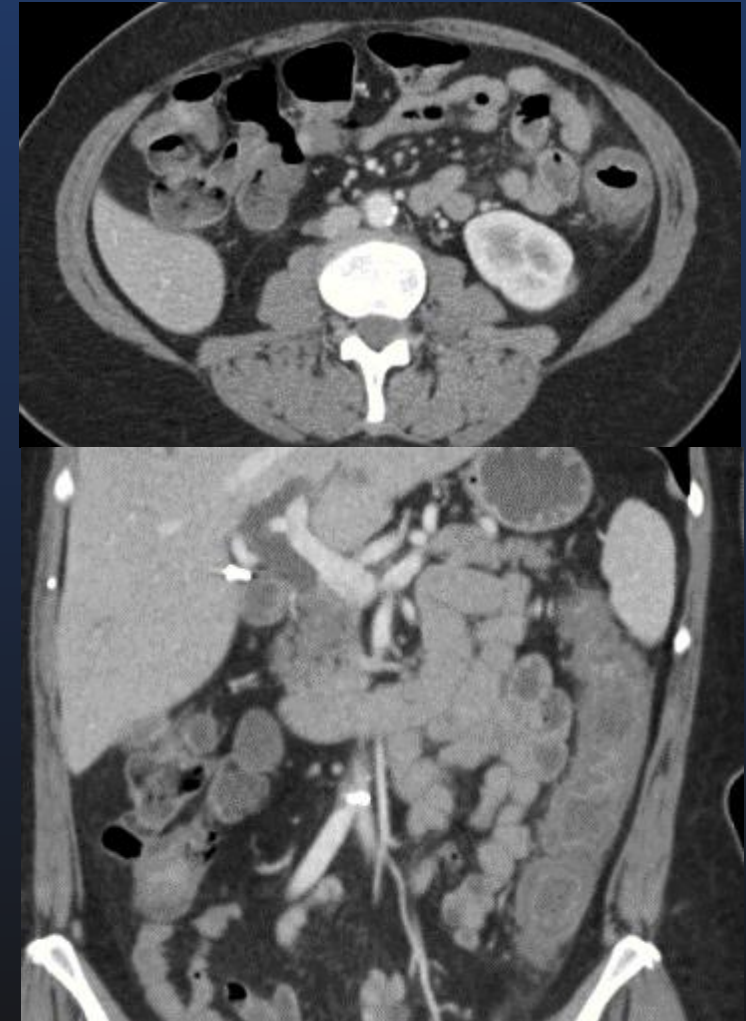


Pyogenic
Abscess



Ischemic Colitis

- More common than small bowel ischemia
- Up to 75% recover
 - Usually no sequelae
 - Occasionally chronic changes ~ IBD
- Different causes:
 - Medium- to small-vessel disease
 - No history of shock, embolic source
 - Blood loss < 1 unit

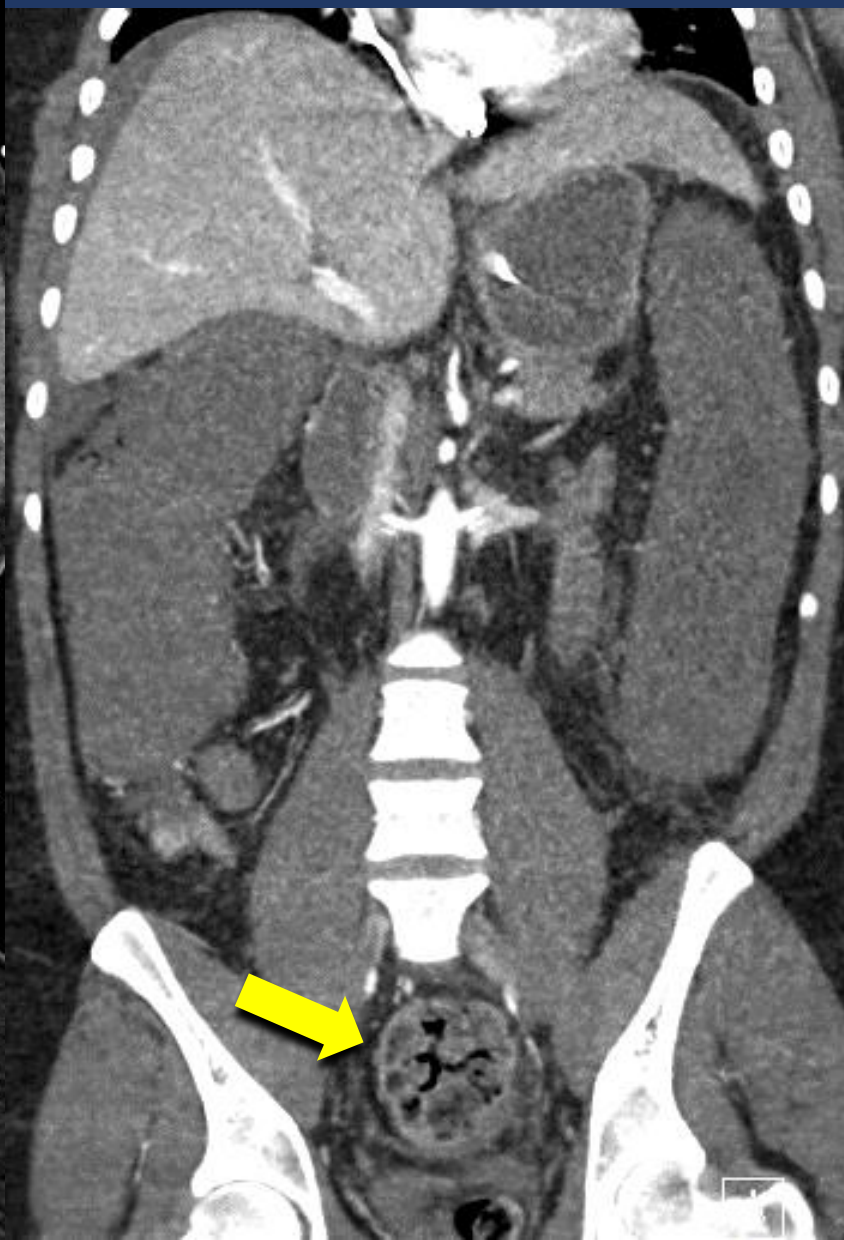
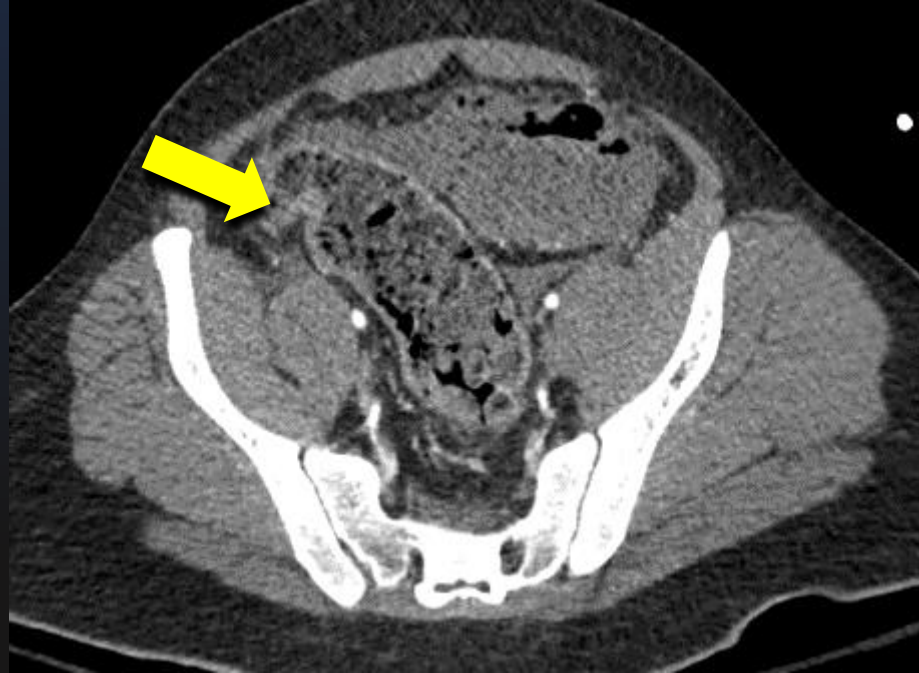


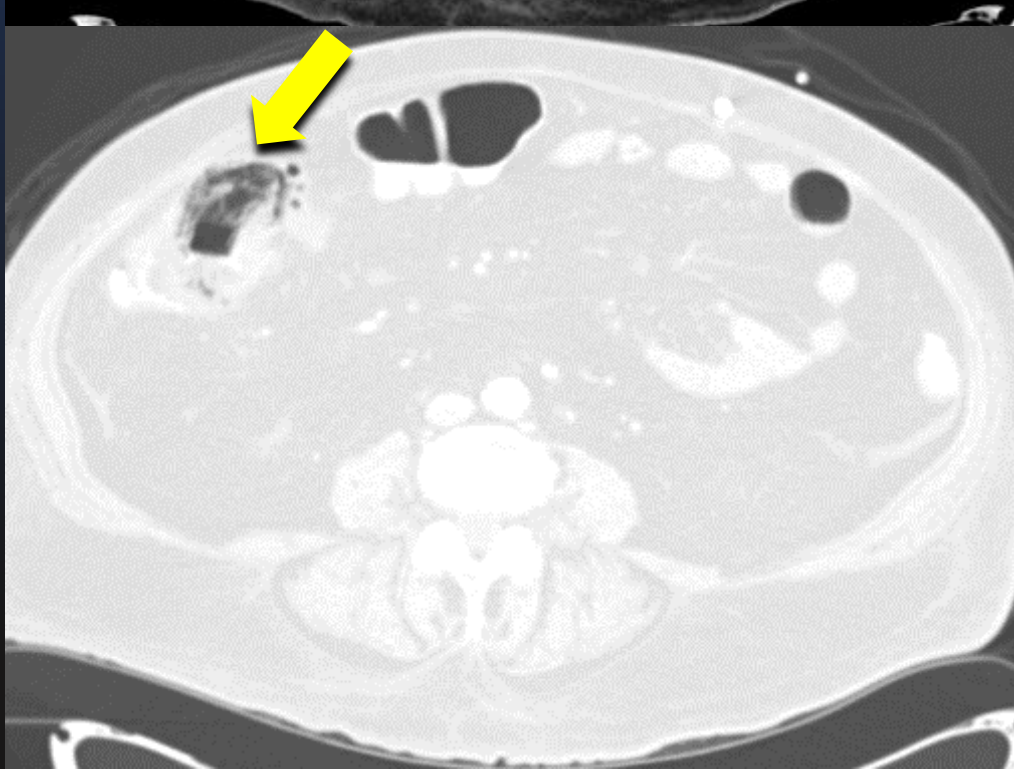
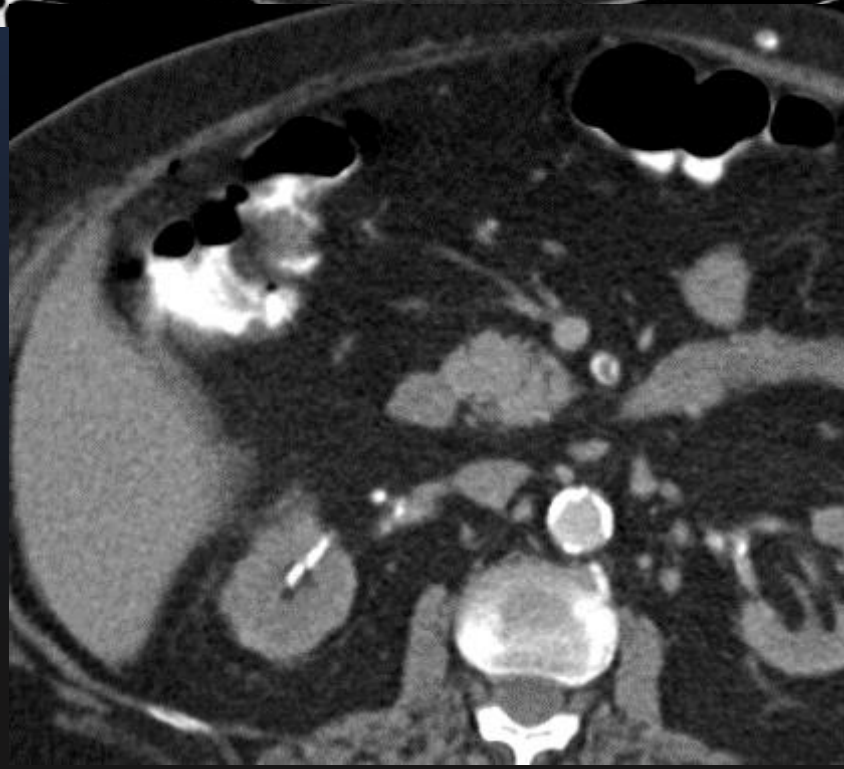
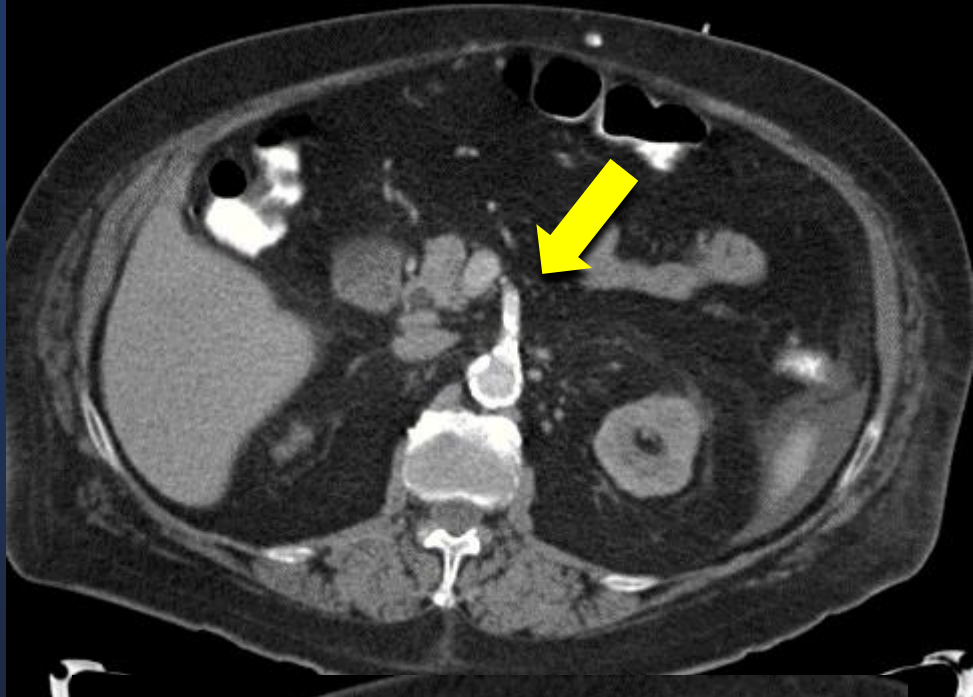
Ischemic Colitis – CT Findings

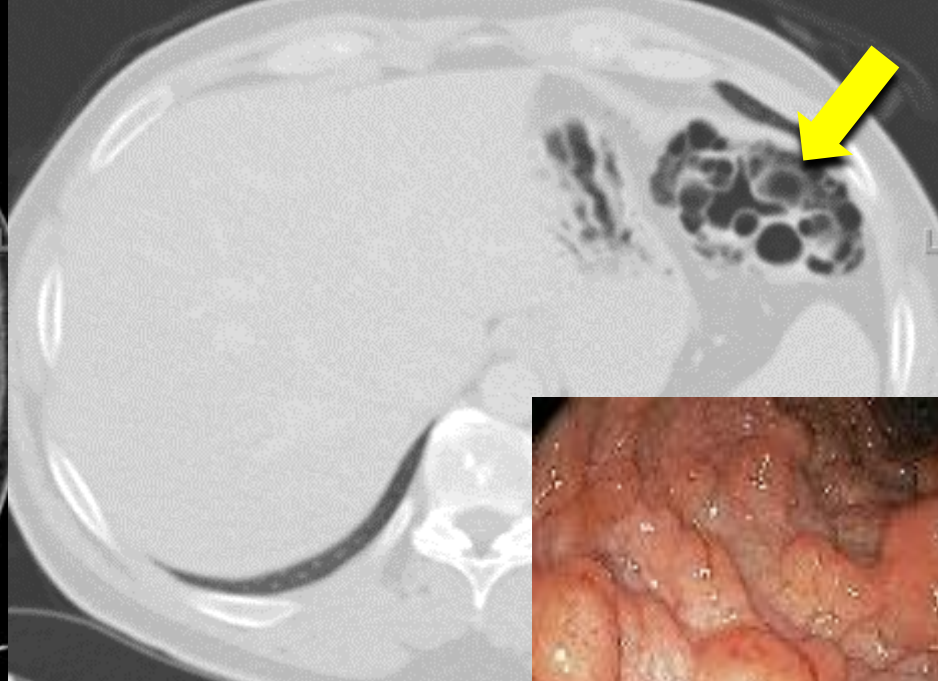
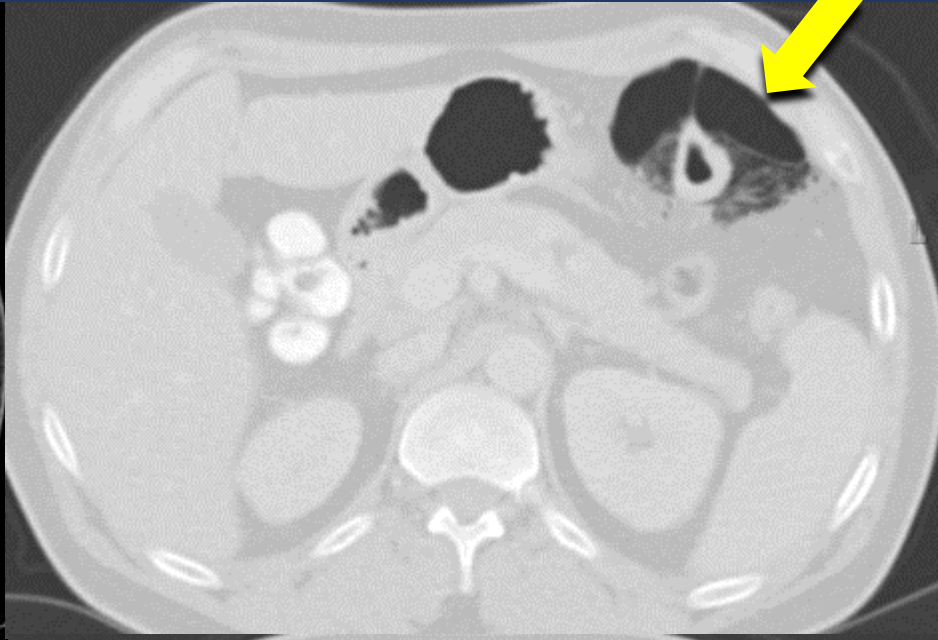
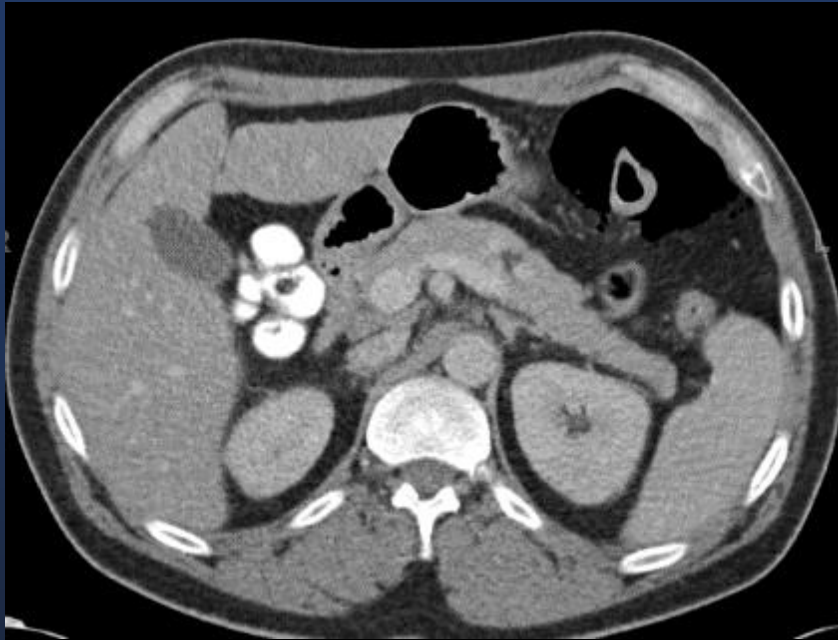
- Cruz et al, Emerg Radiol 2015
 - Bowel wall thickening – 88%
 - Fat stranding – 88%
 - Abnormal wall enhancement – 82%
 - Venous engorgement – 51%
 - Fluid or ascites – 35%
 - Dilatation – 20%
 - Pneumatosis – 9.8%
 - Portomesenteric gas – 1.9%





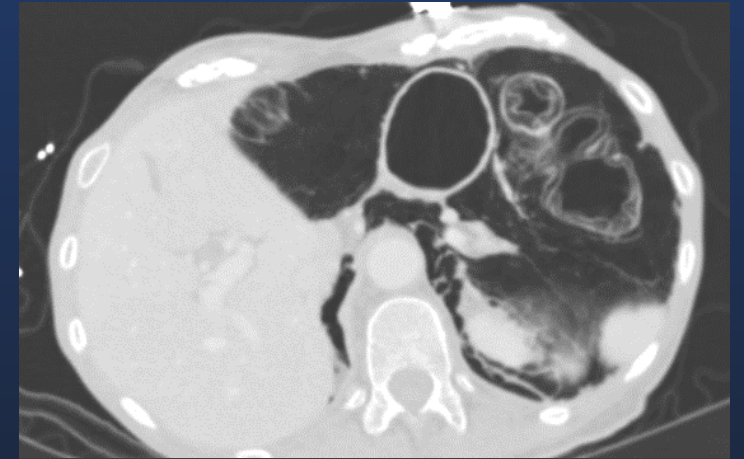


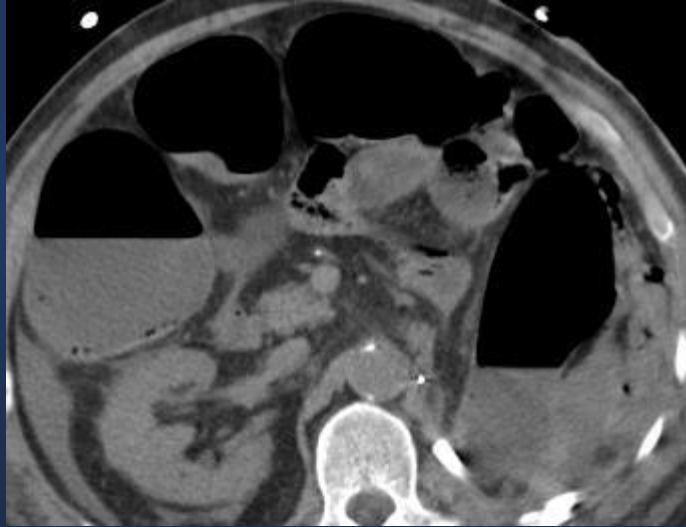


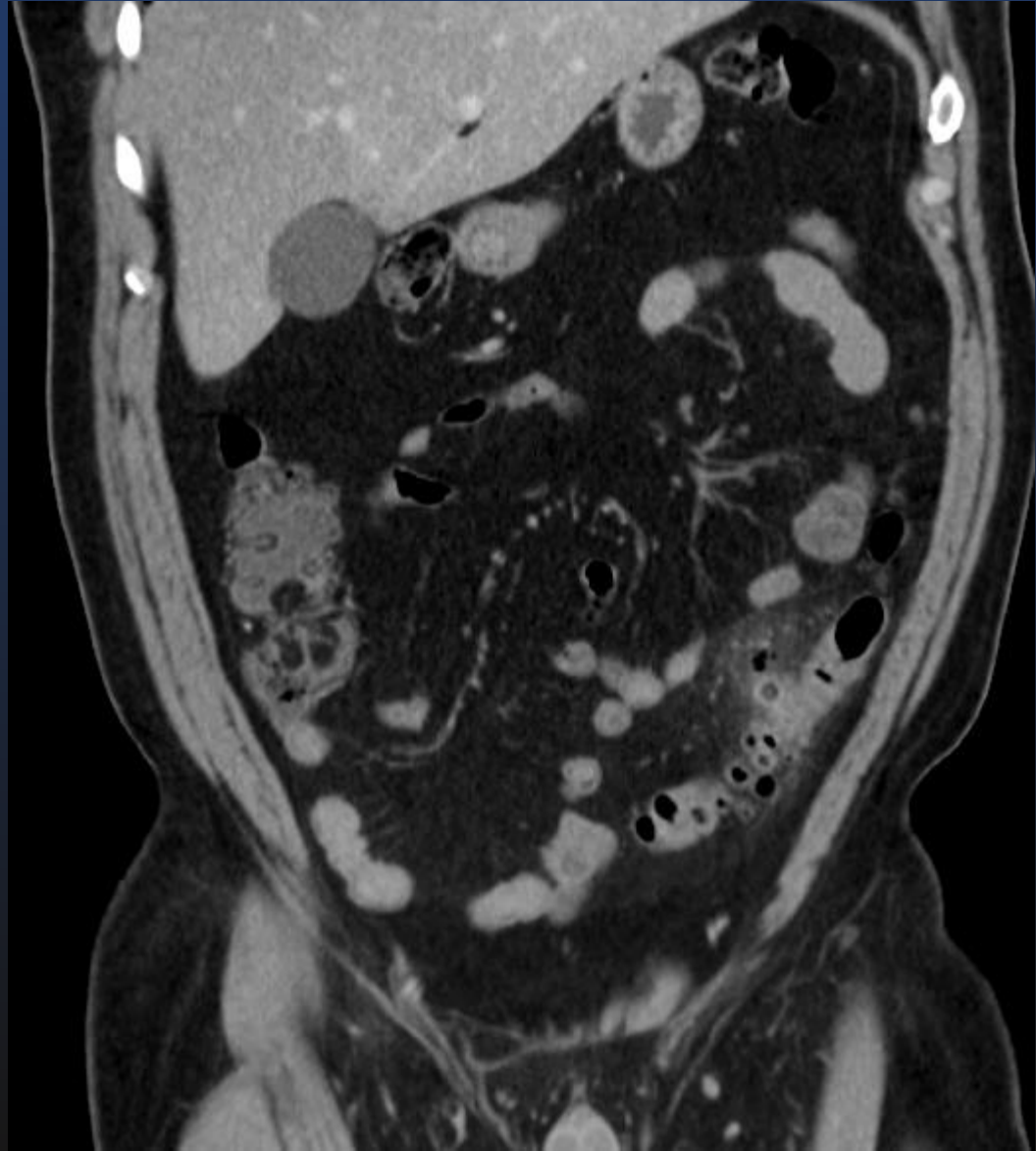


Colonic Pneumatosis – Not Always Ischemia

- Primary form
 - Pneumatosis cystoides intestinalis
 - Uncommon
 - Usually asymptomatic
 - Thin wall-submucosal or subserosal cysts
- Secondary form (85%)
 - Ischemia
 - Nonischemic causes: COPD, Obstruction, Immunosuppression – steroids and chemotherapy



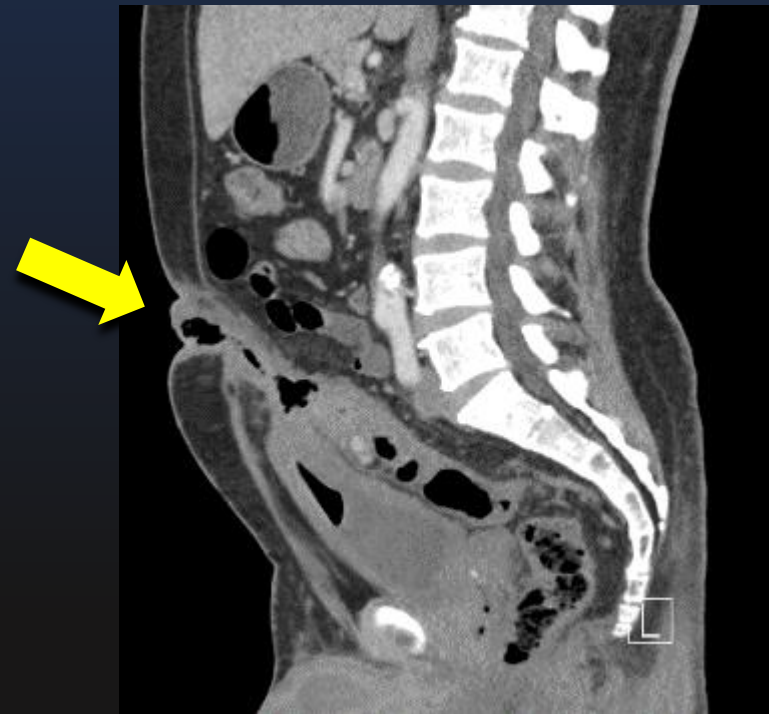
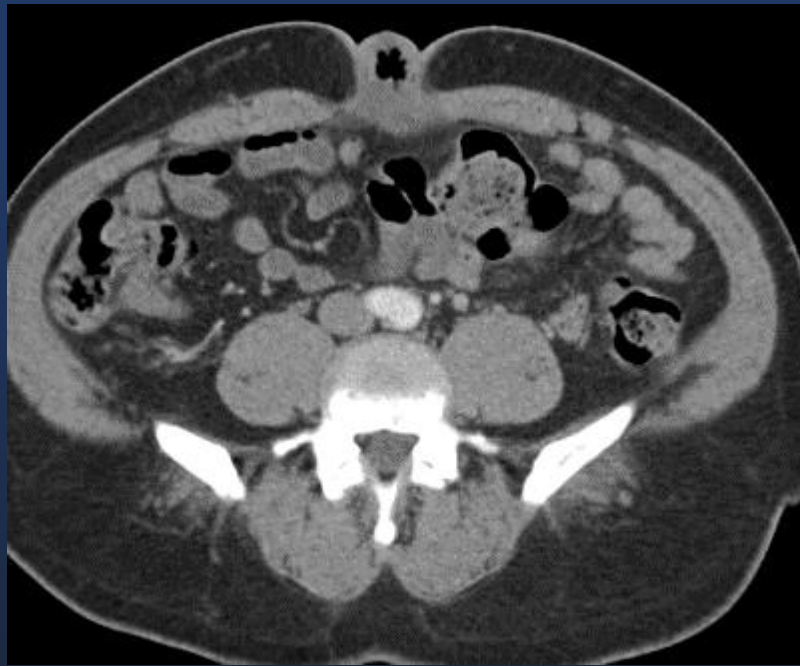


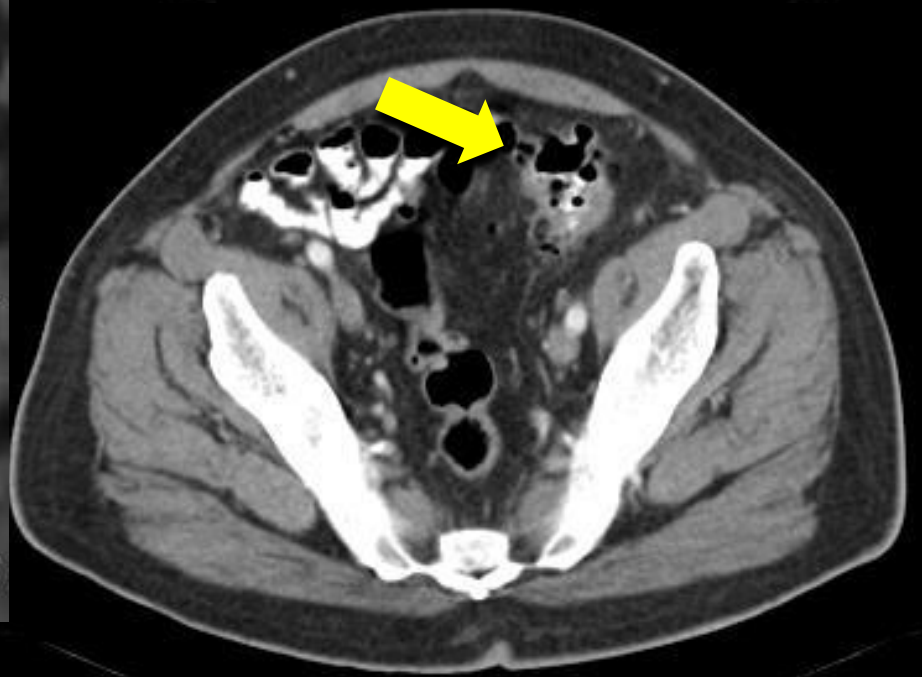
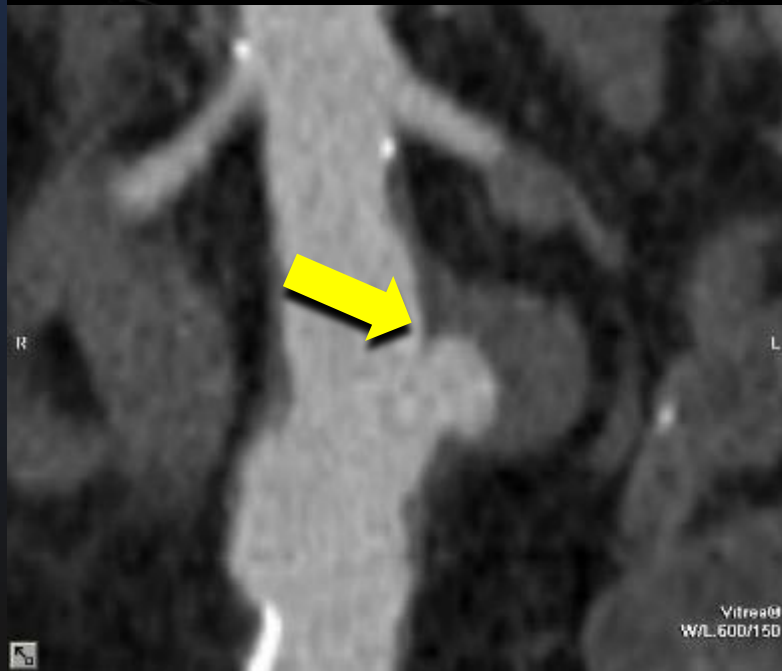
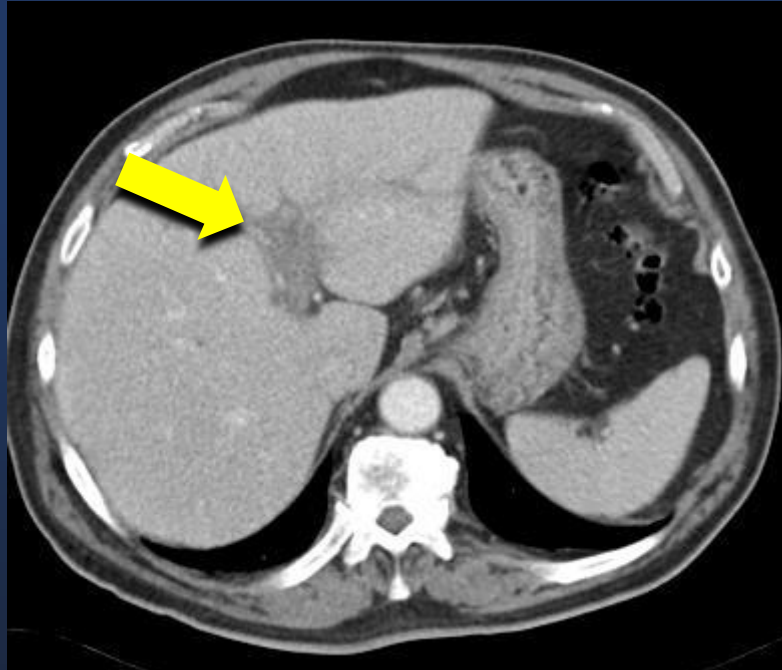


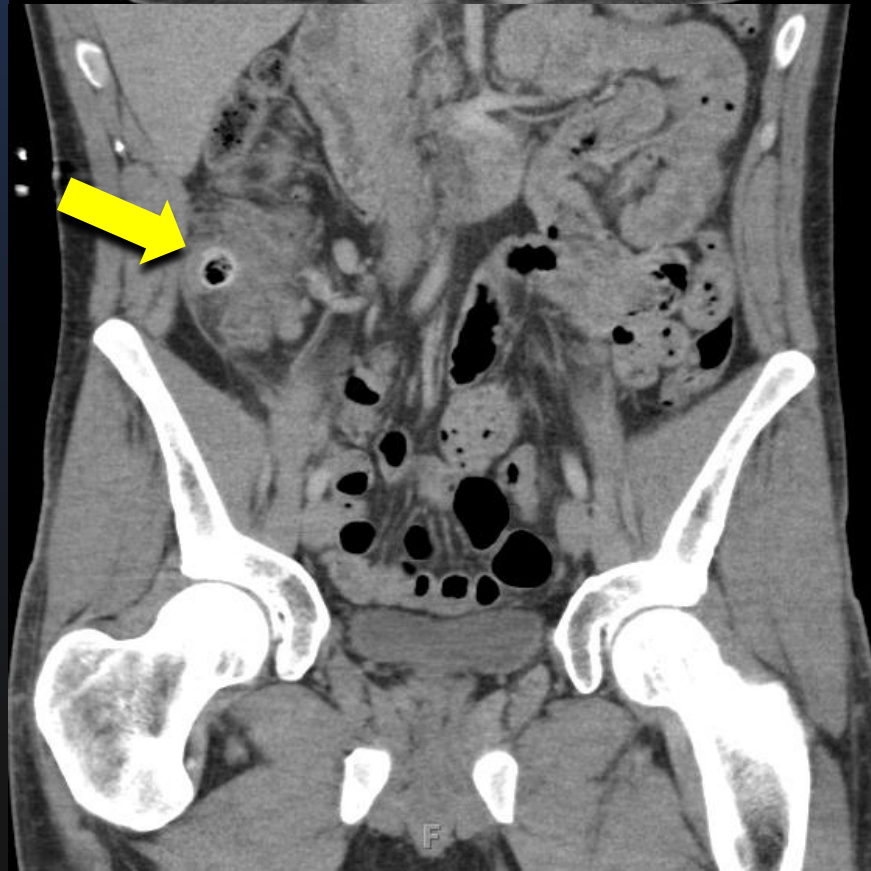
Inflammation/Infection: Diverticulitis

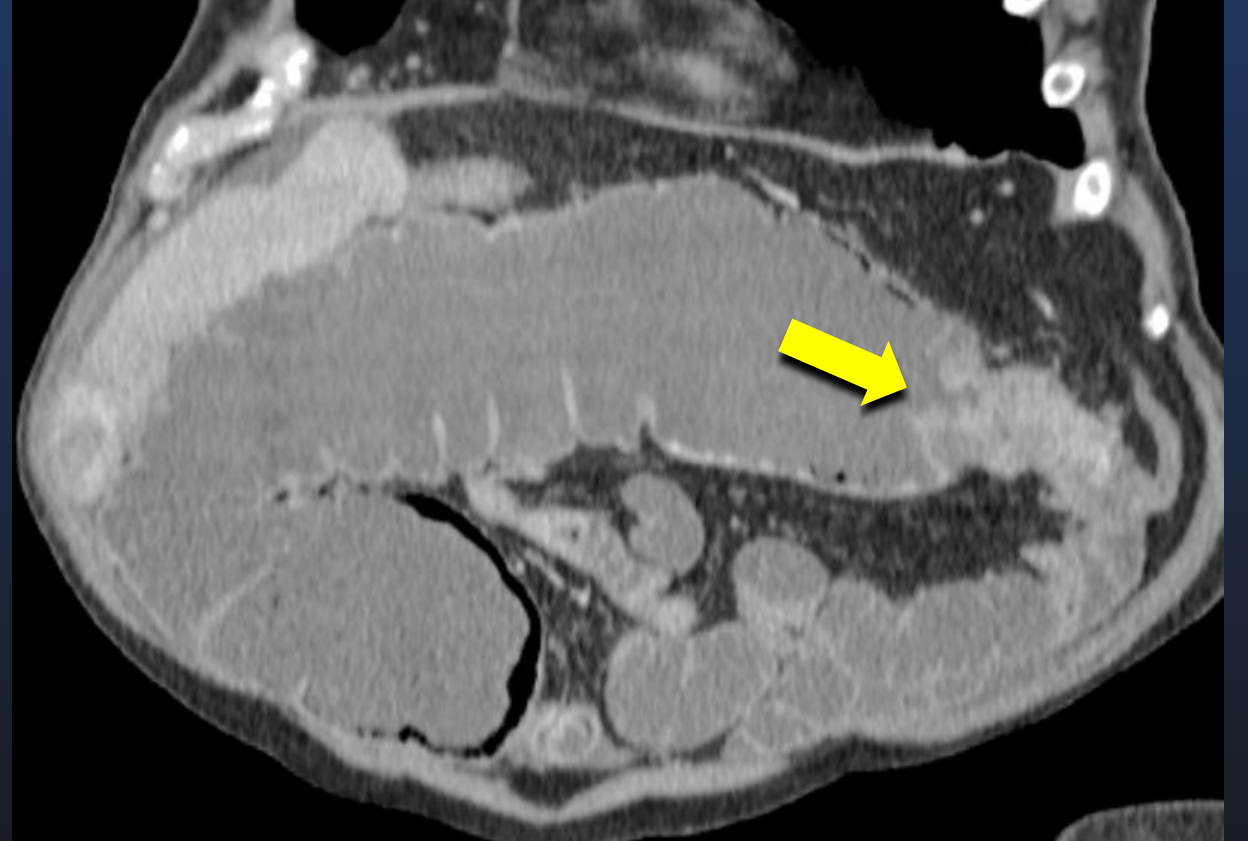
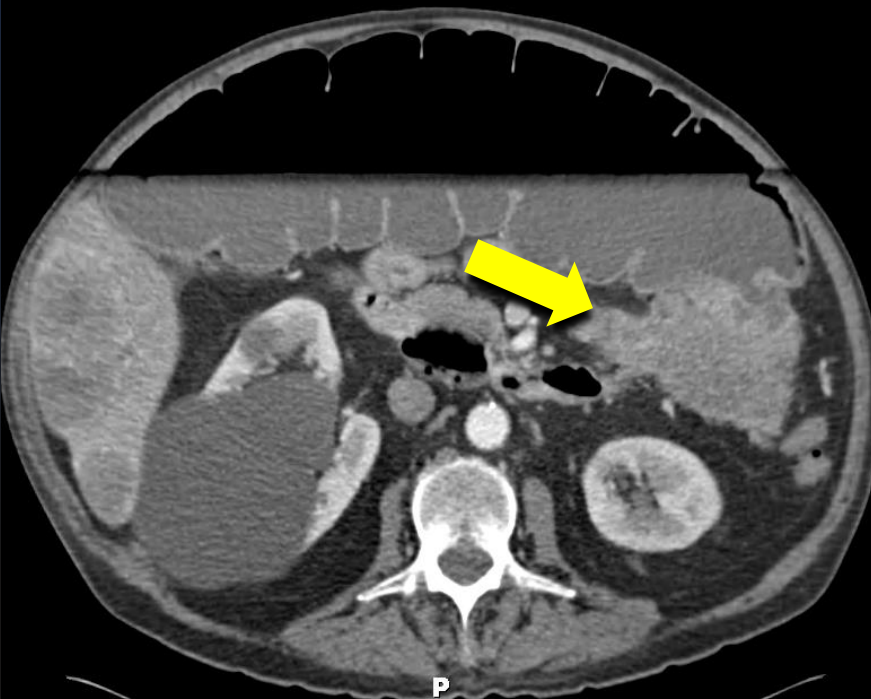
- Several grading scales proposed
- Modified Hinchey classification
 - Stage 0: Mild clinical diverticulitis
 - Stage 1a: Confined pericolic inflammation or phlegmon
 - Stage 1b: Pericolic or mesocolic abscess
 - Stage 2: Pelvic, distant, or retroperitoneal abscess
 - Stage 3: Generalized purulent peritonitis
 - Stage 4: Generalized fecal peritonitis







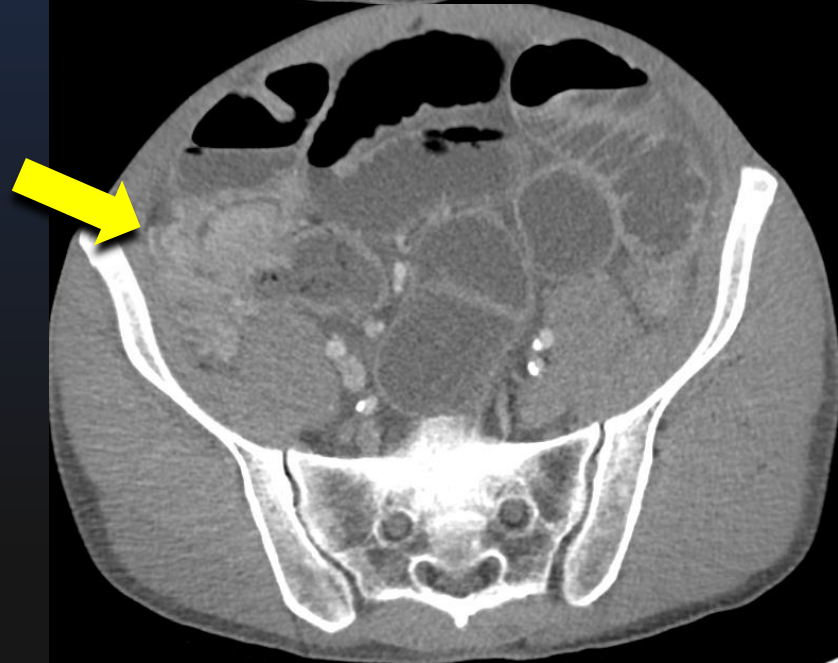


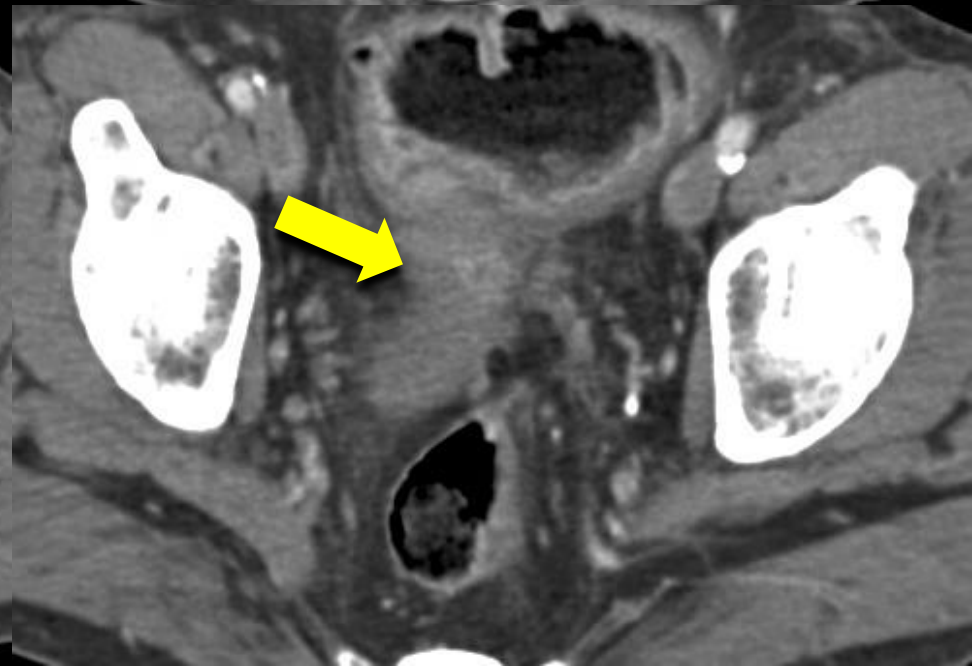


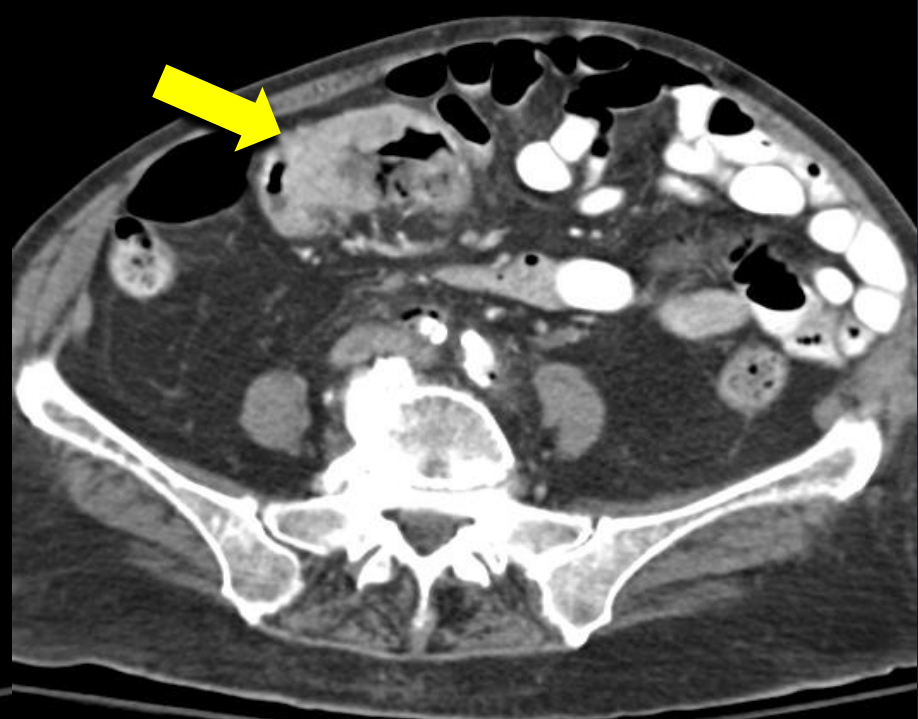
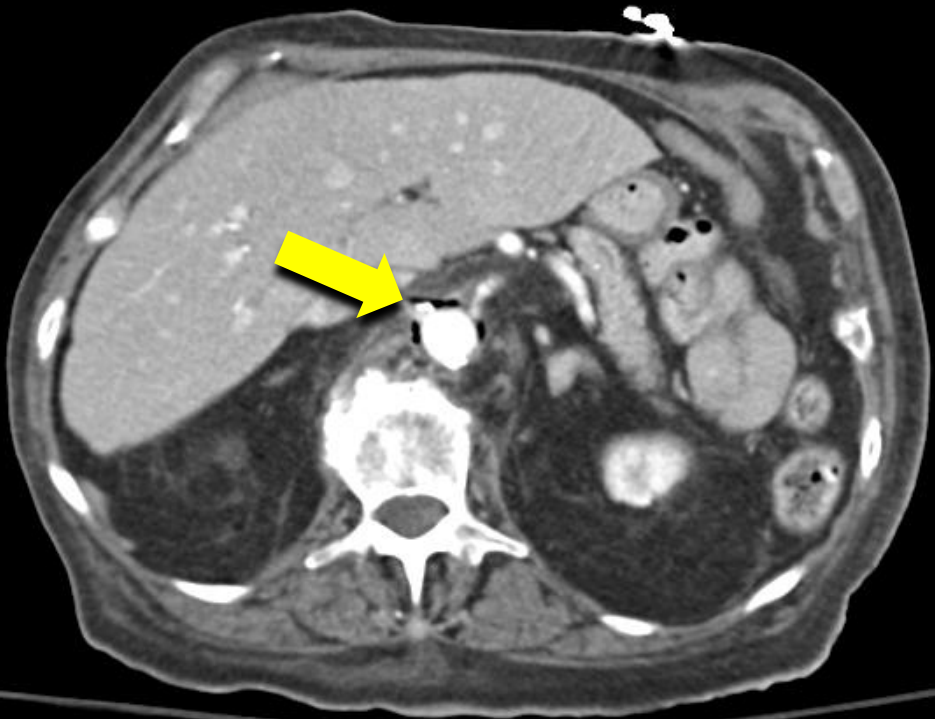
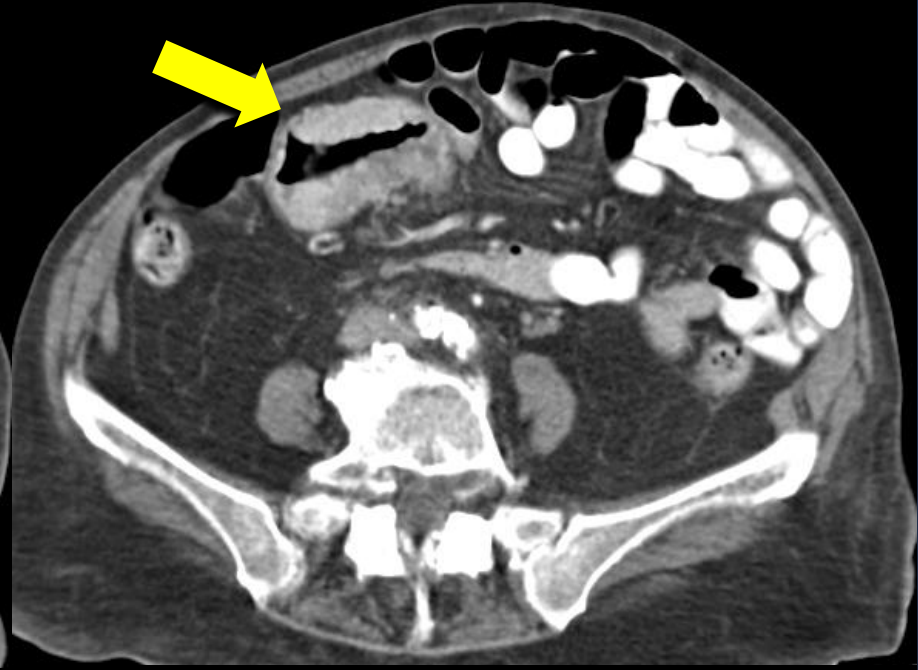
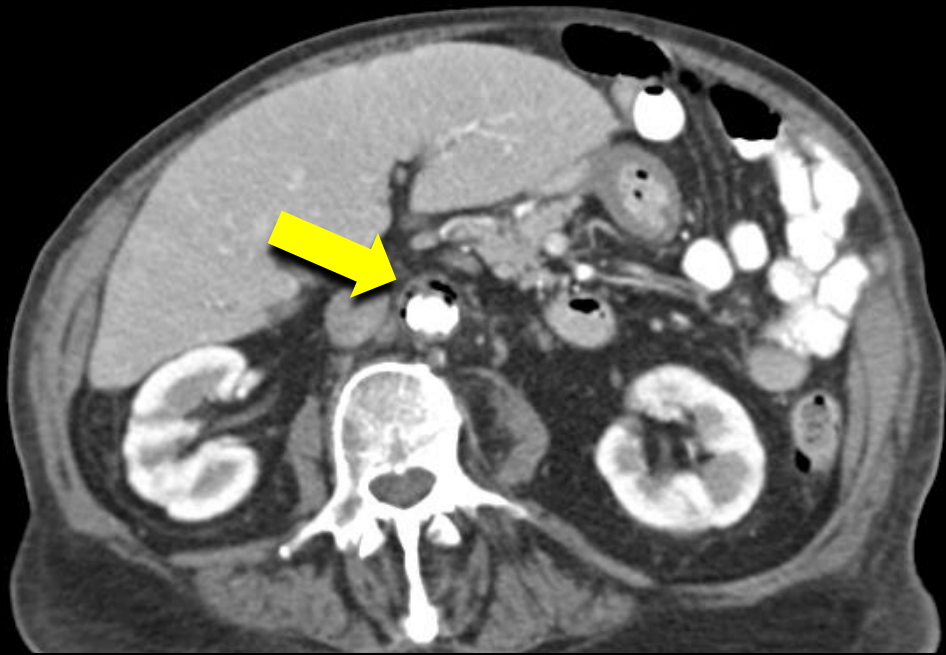
Obstruction: Malignancy

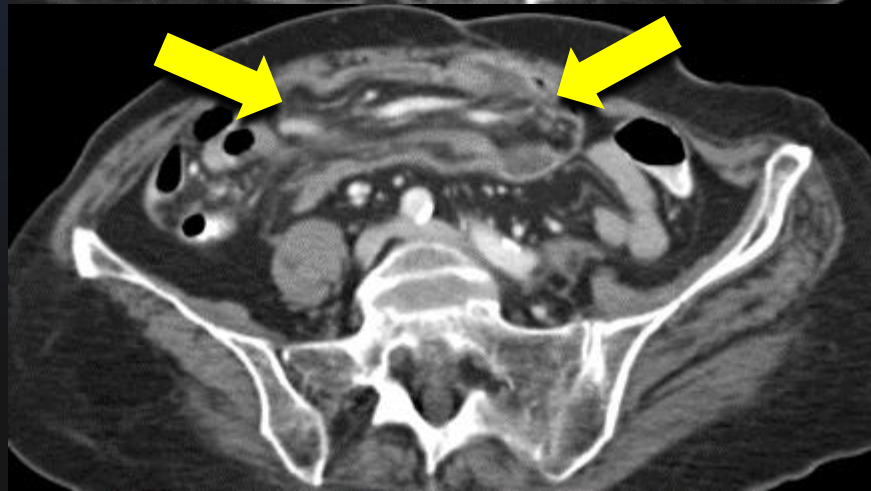
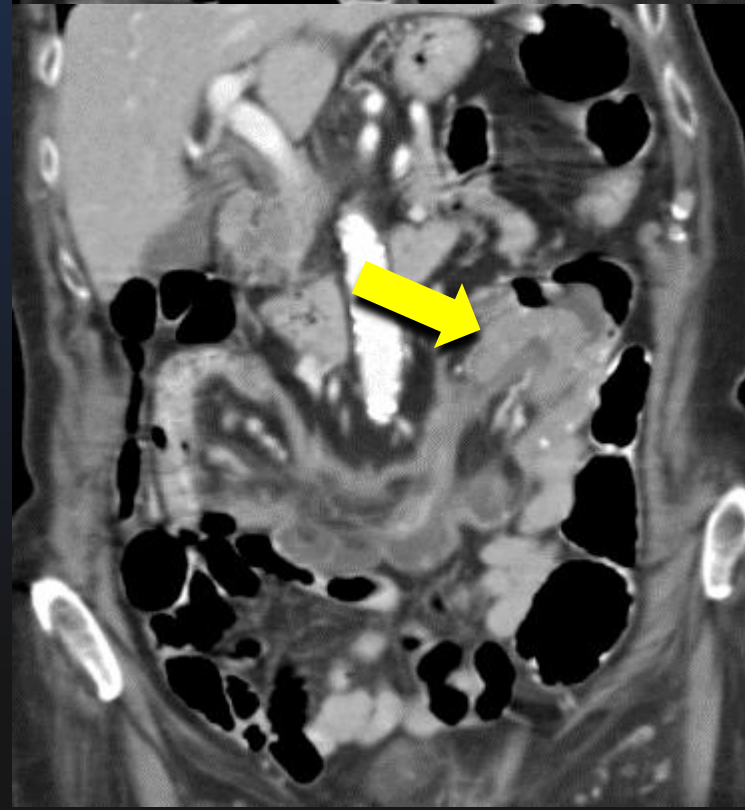
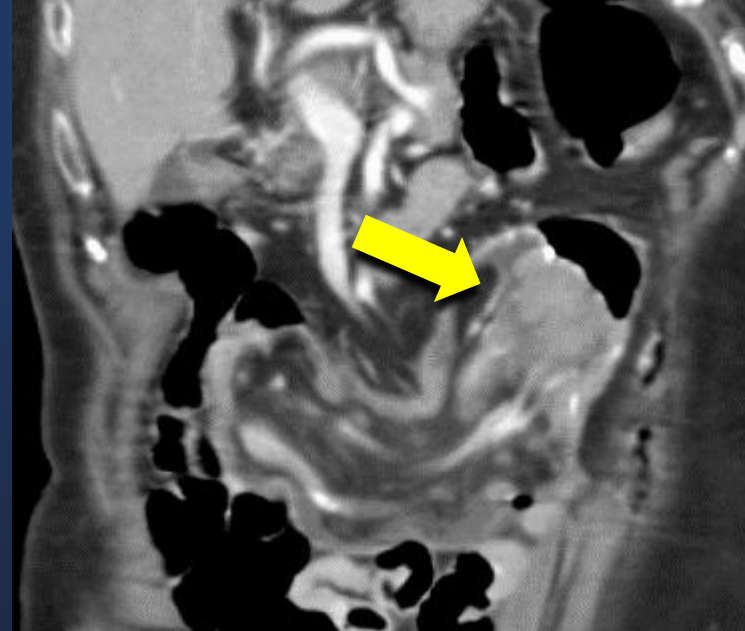
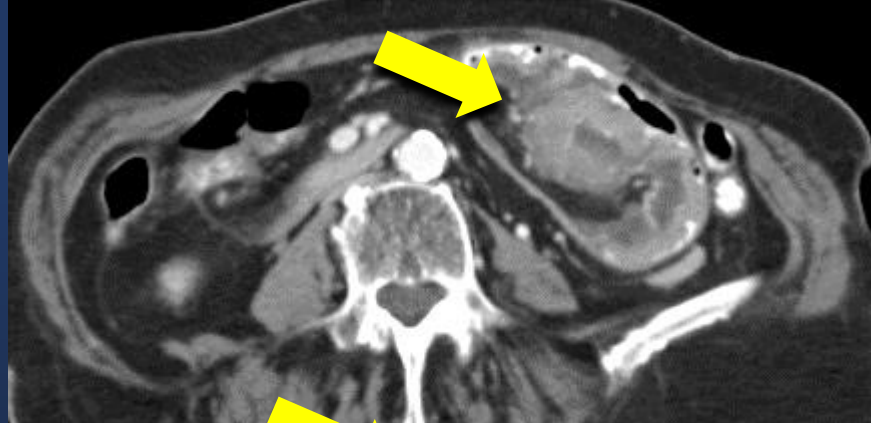
- Most common cause of colonic obstruction in adults (50-60% of cases)
- Typically primary colon adenocarcinoma, but other tumors can obstruct, especially in the pelvis
- CT Findings:
 - Soft tissue mass at the transition point of colonic obstruction
 - Can be subtle – pay attention to attenuation of submucosa
 - Other evidence of metastatic disease





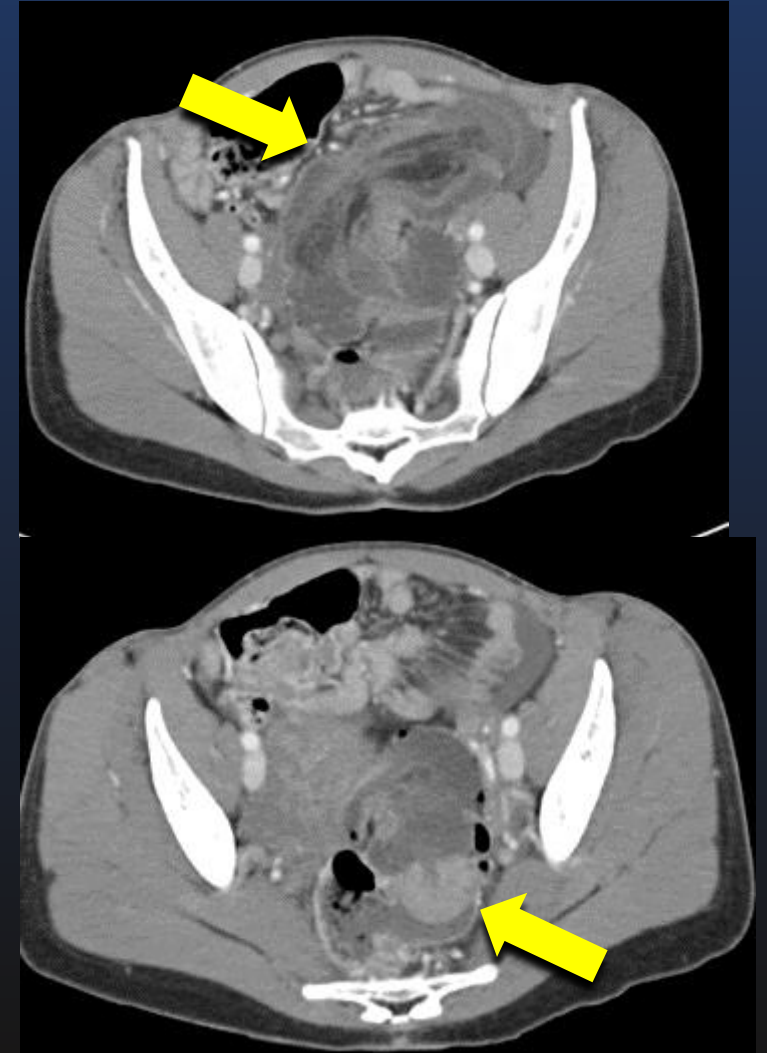


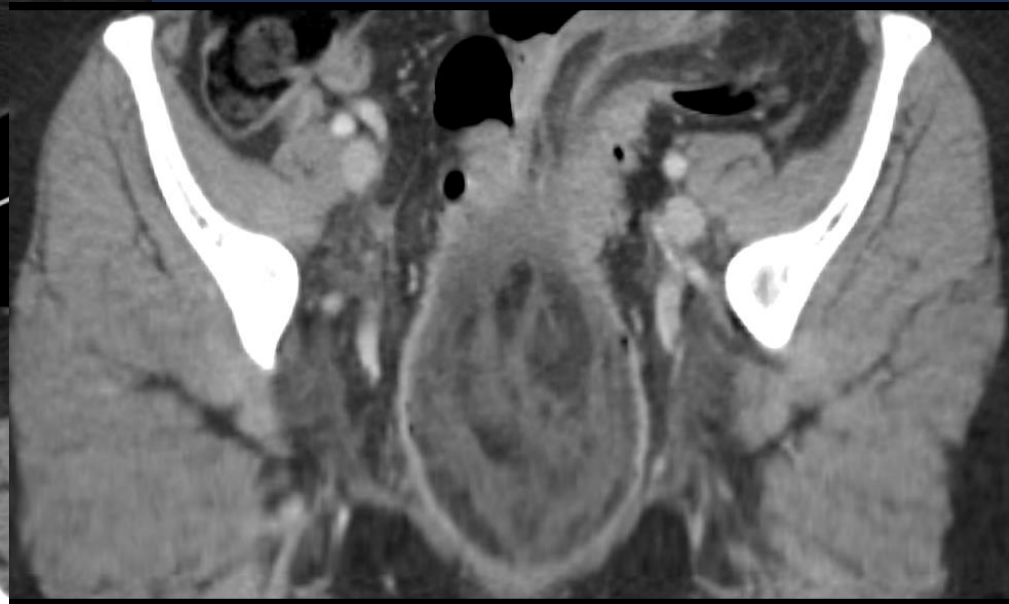
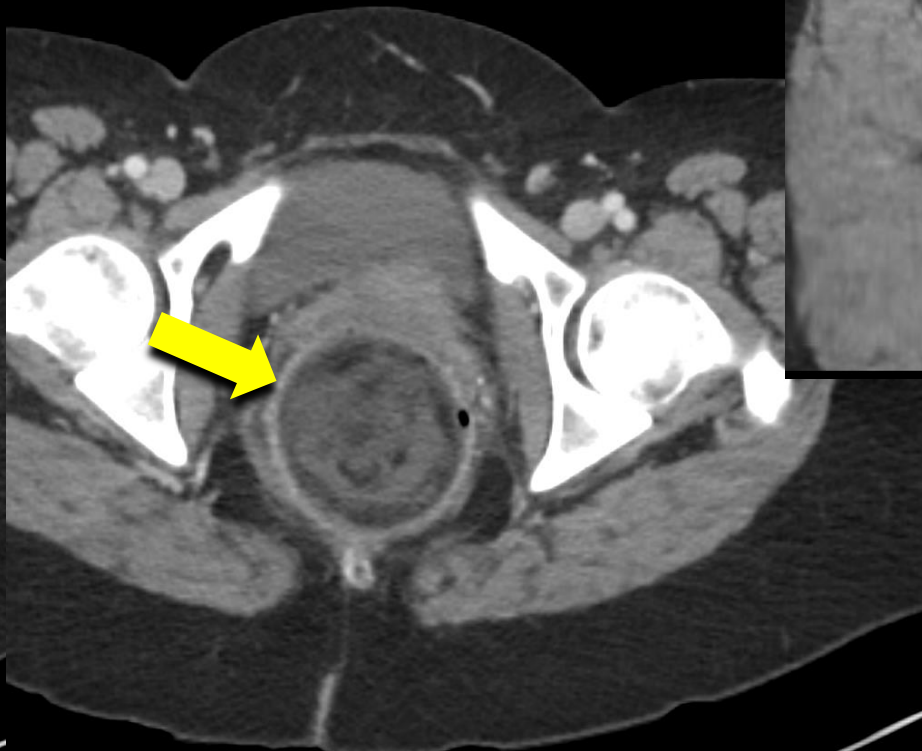
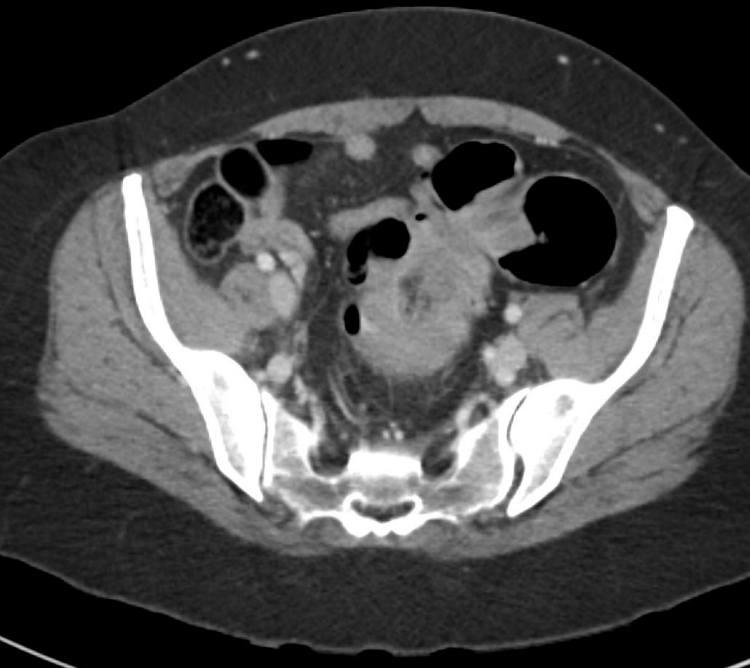
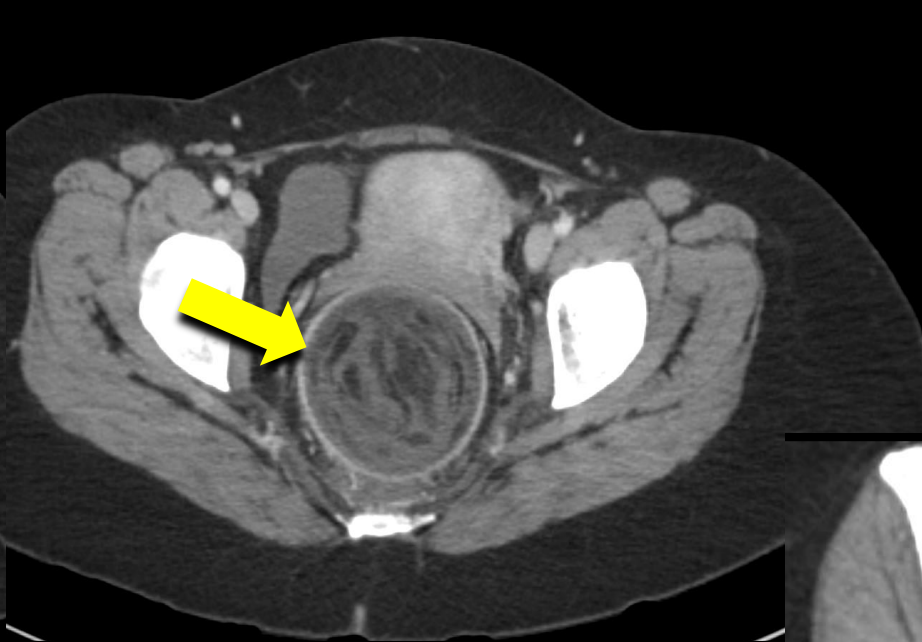
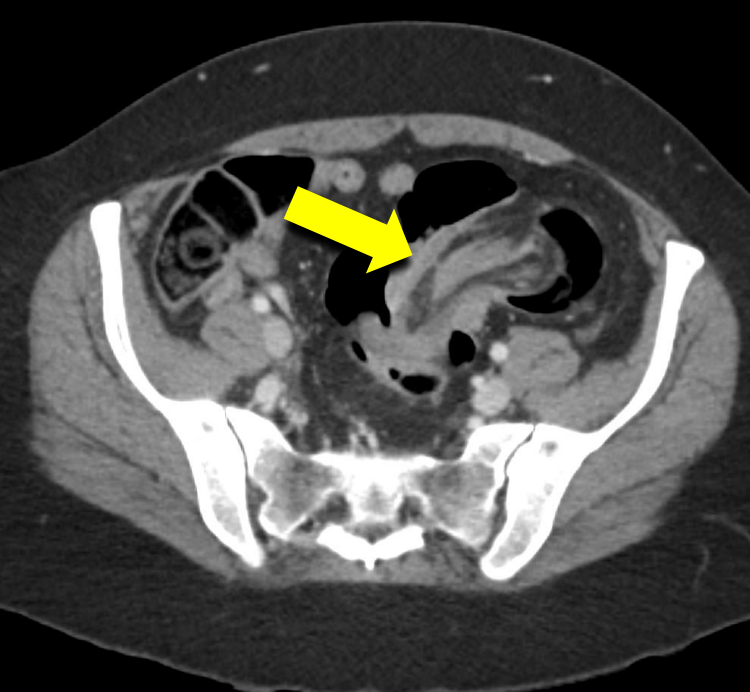




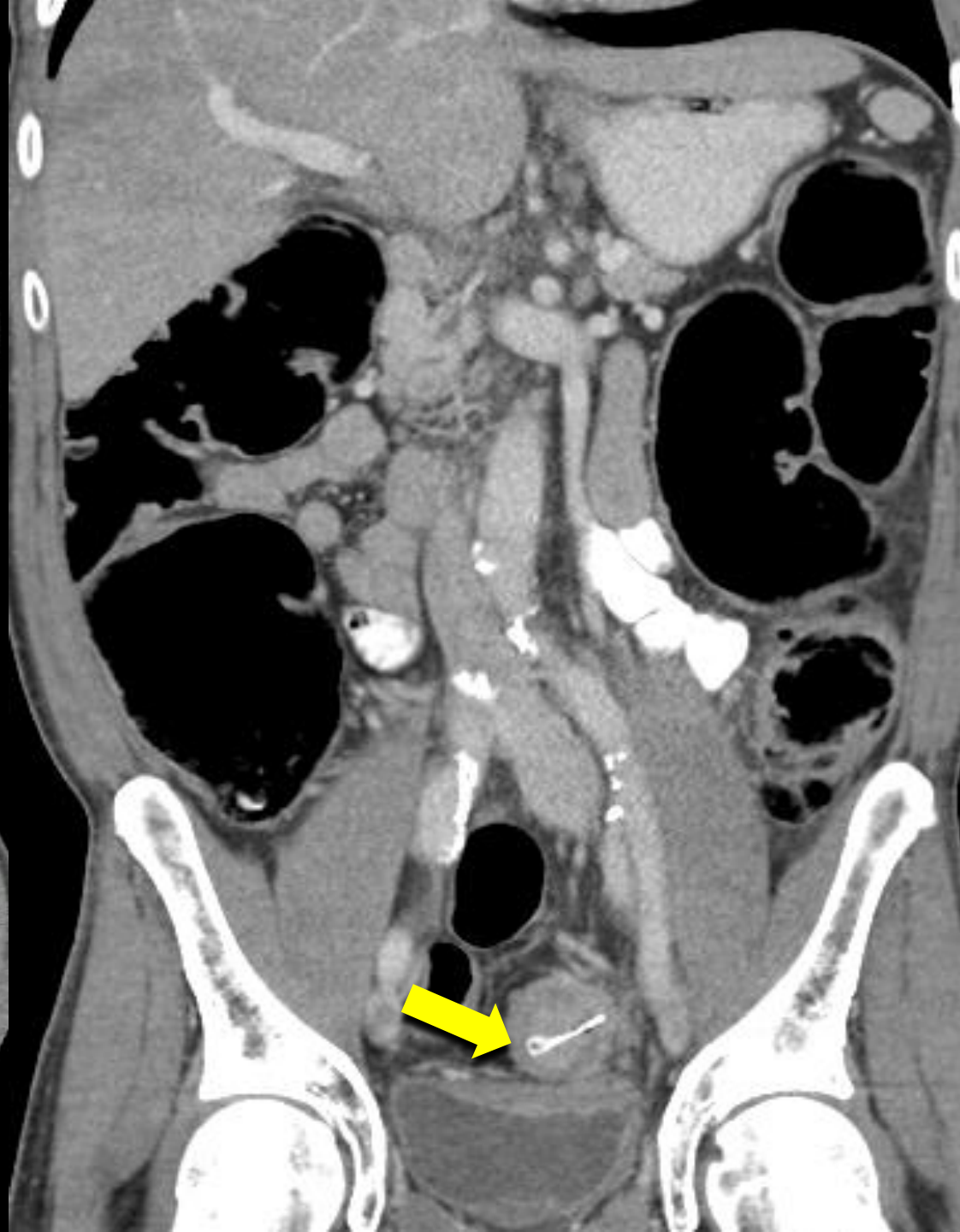
Obstruction: Intussusception

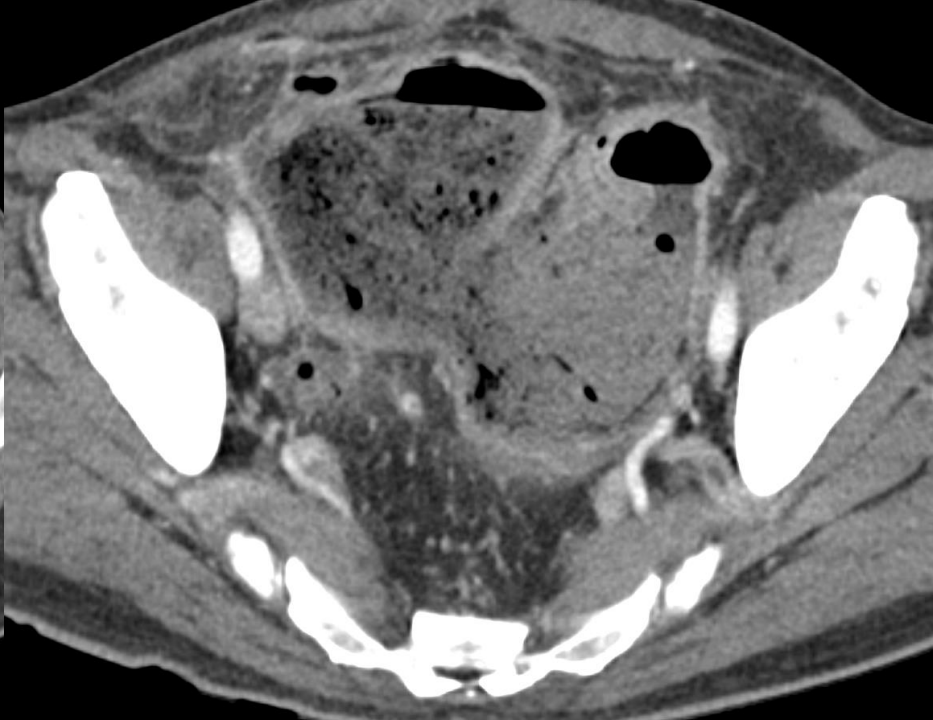
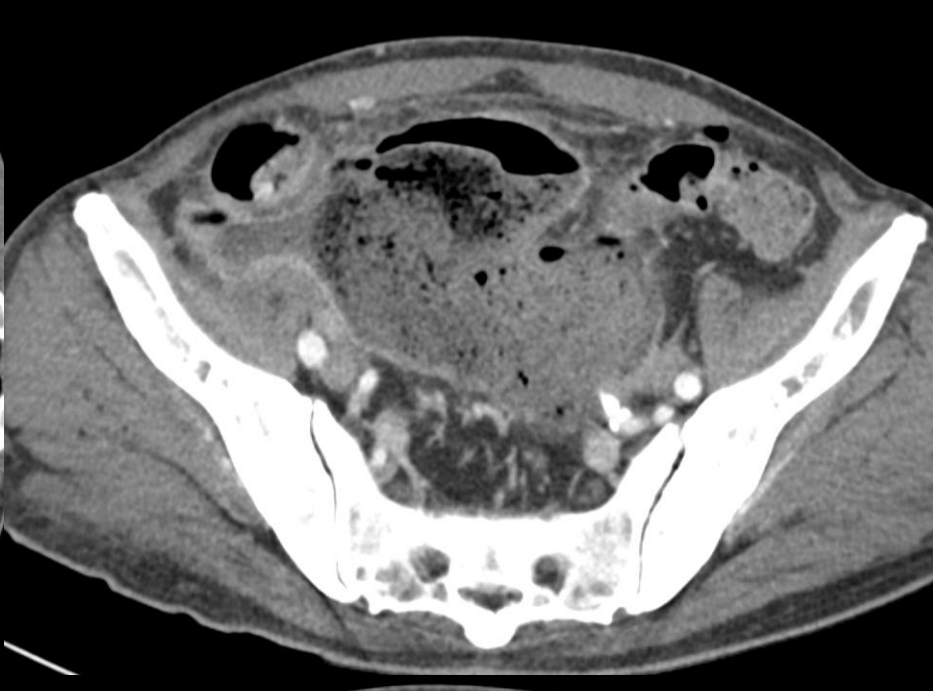
- Colonic intussusception is rare in adults
- Most commonly caused by malignancy
- Almost all have lead-point masses
- May be chronic
- Key to diagnosis – mesenteric fat/vessels in bowel lumen

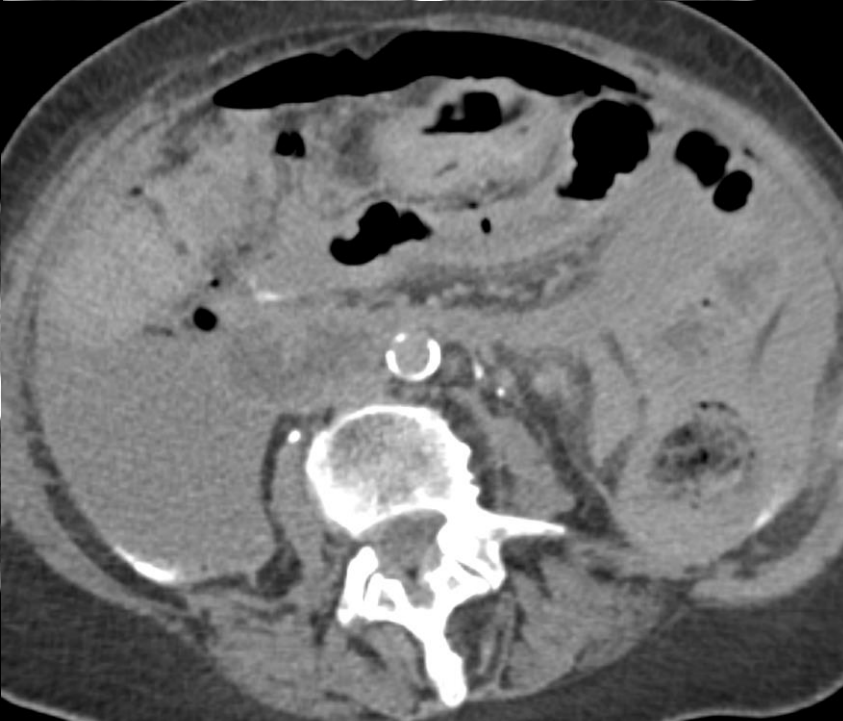
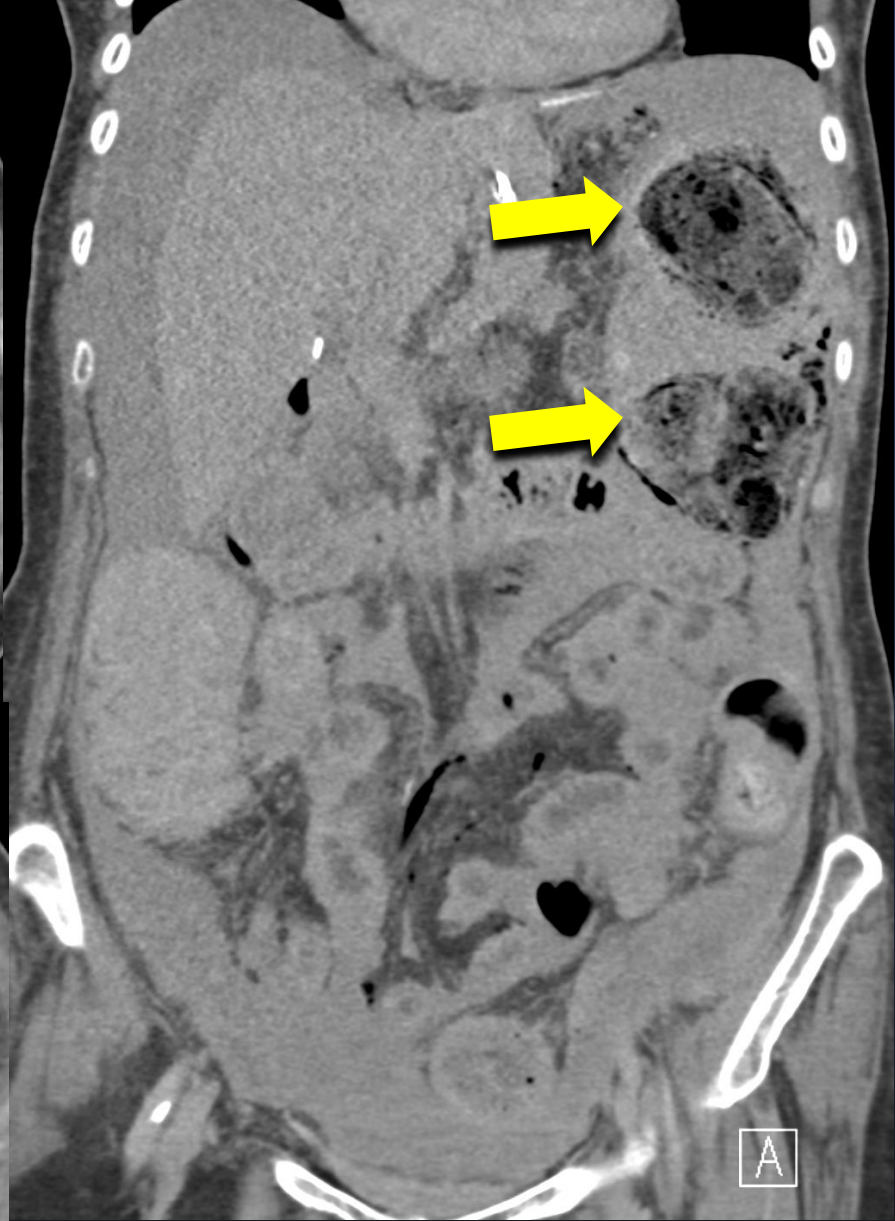
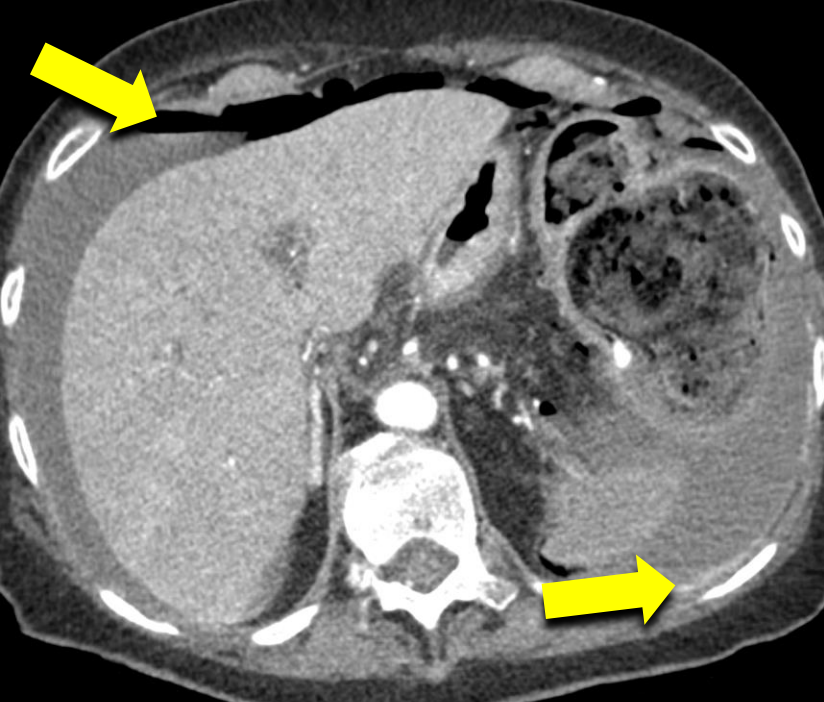




Ulcerated lipoma with intussusception

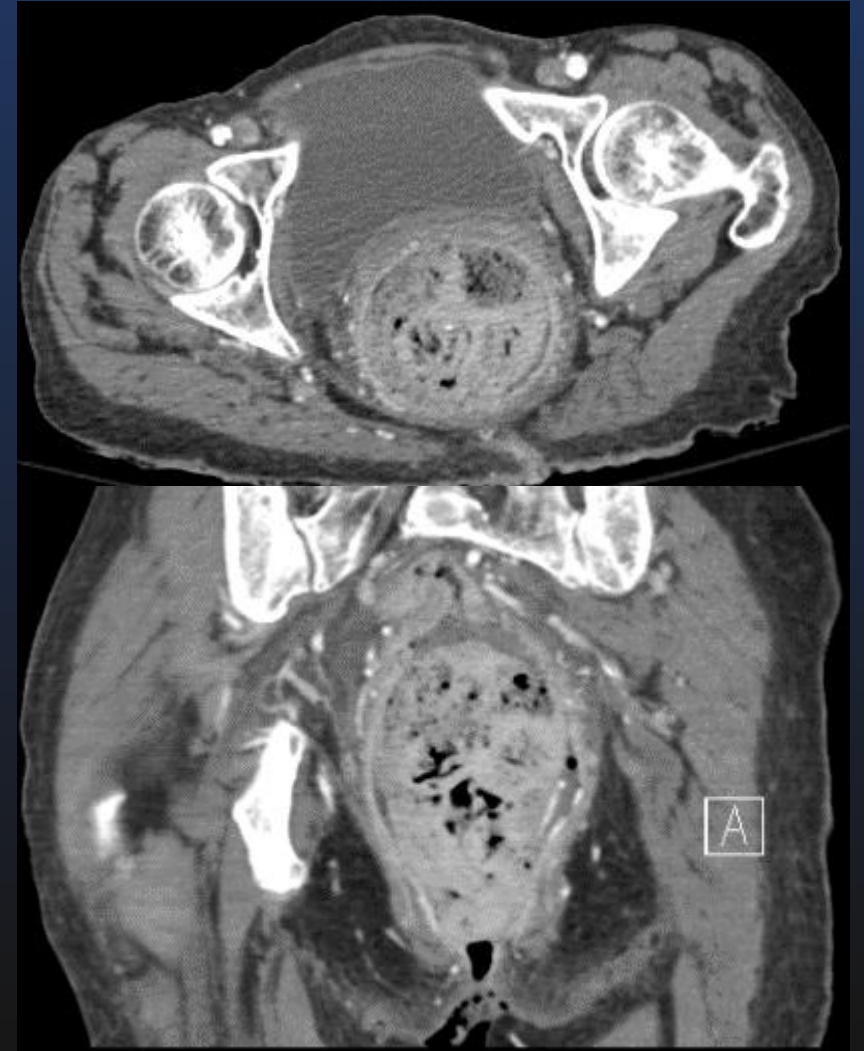


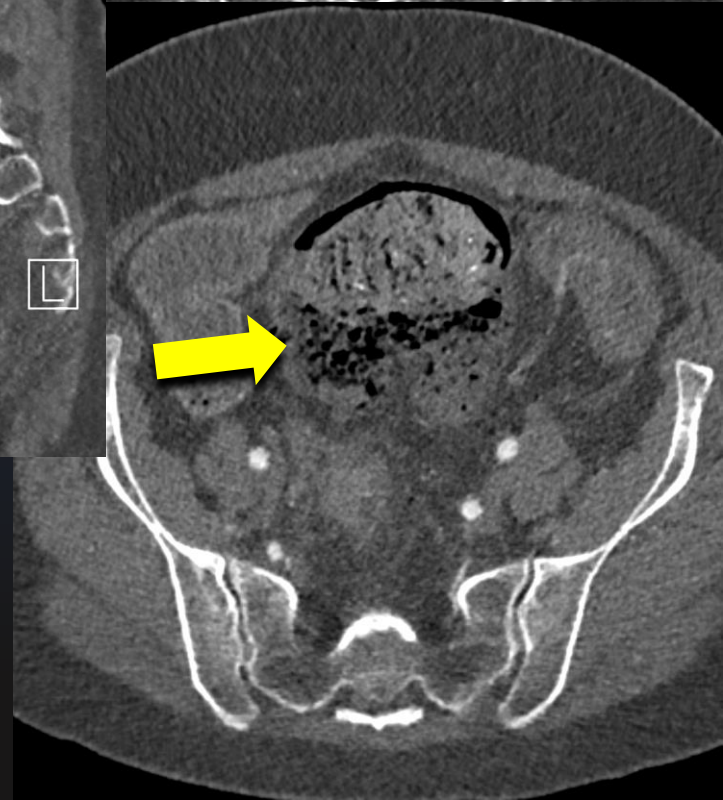
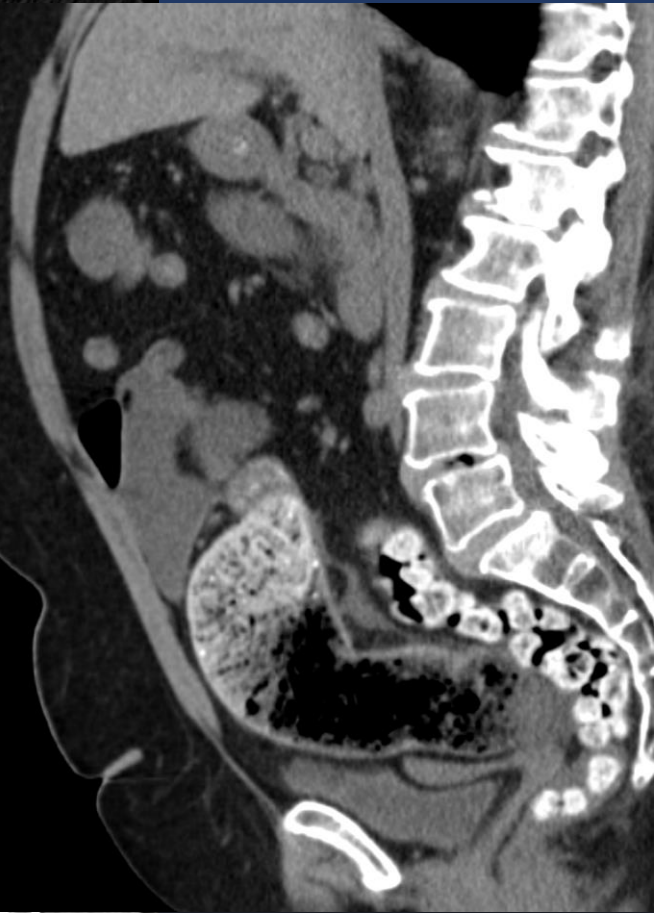




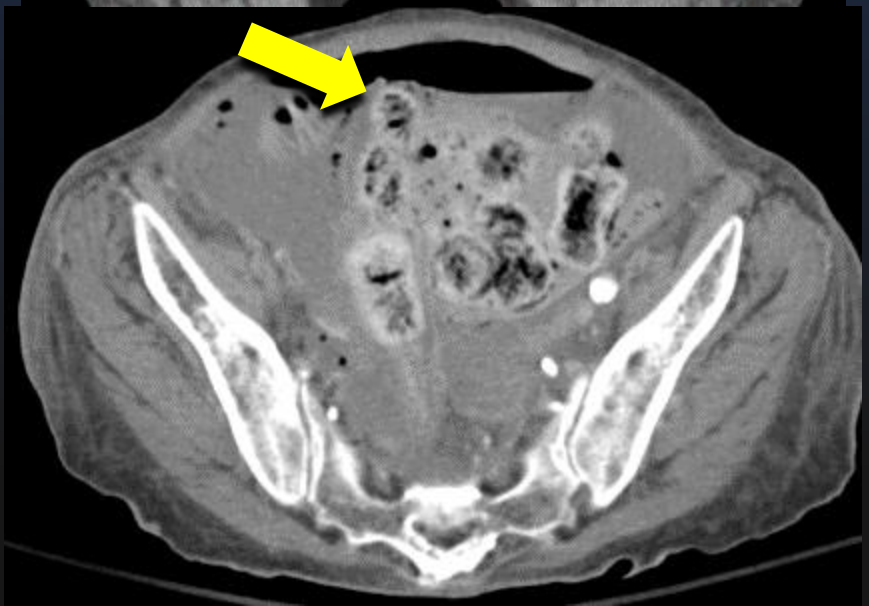
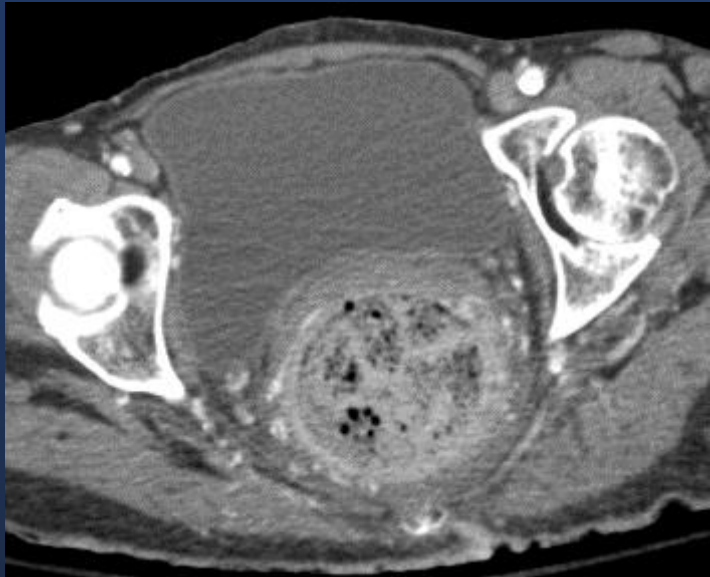
Perforation: Stercoral Colitis

- Pressure necrosis from fecal impaction
- Perforation uncommon but possible
- Keys to diagnosis:
 - Impacted stool ball
 - Sigmoid or rectal wall thickening
 - Pericolonic inflammation

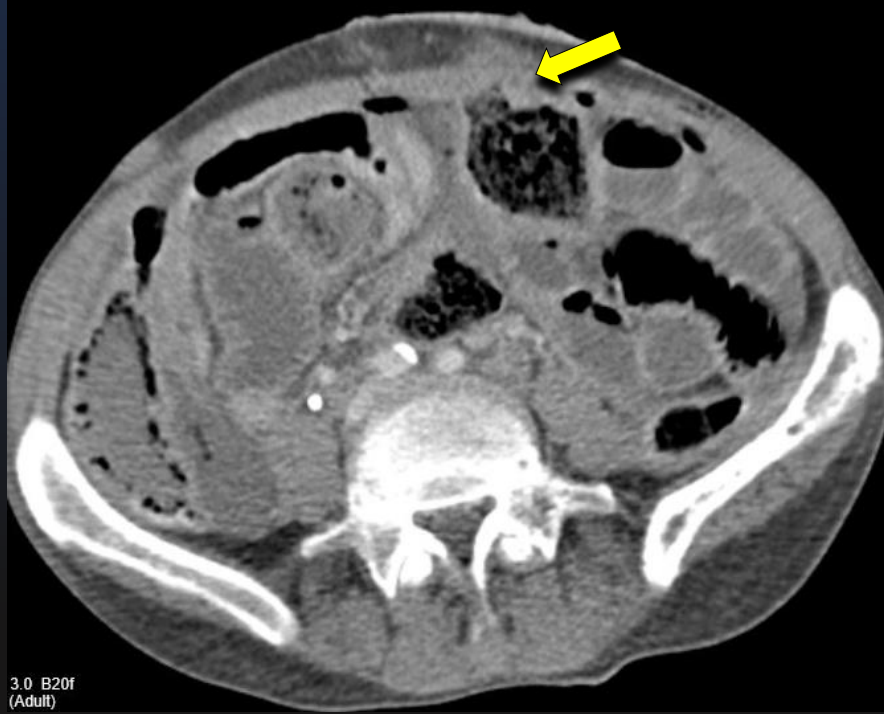
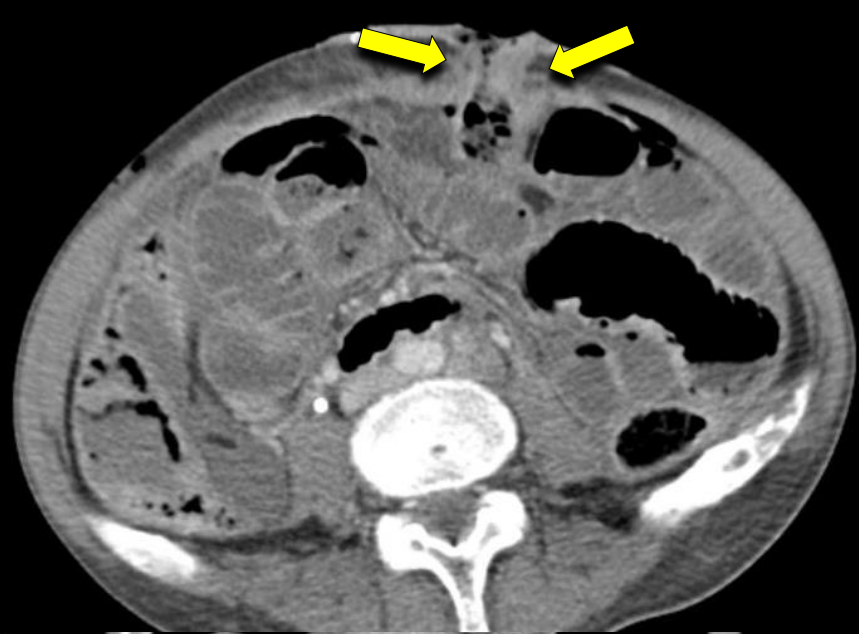
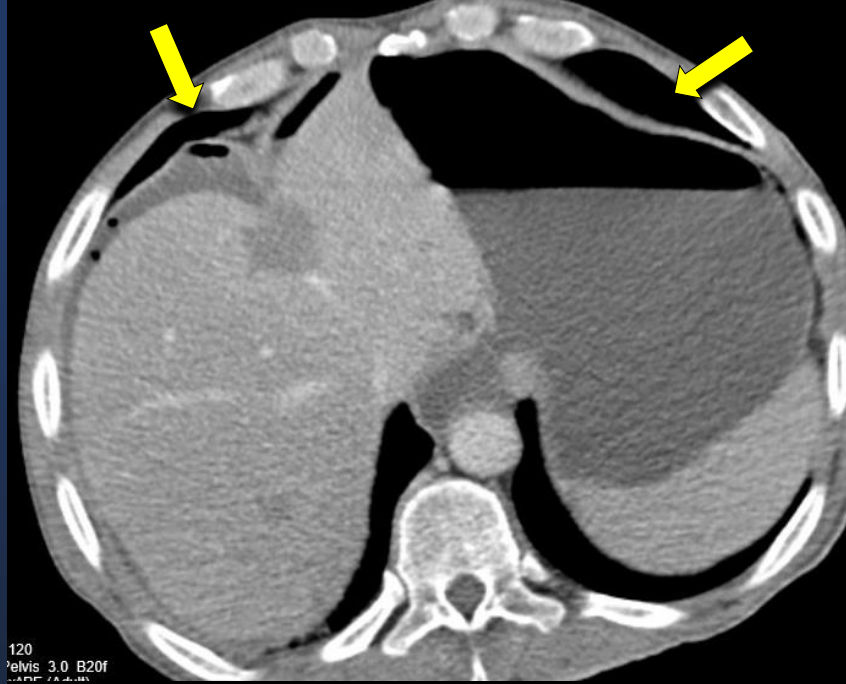




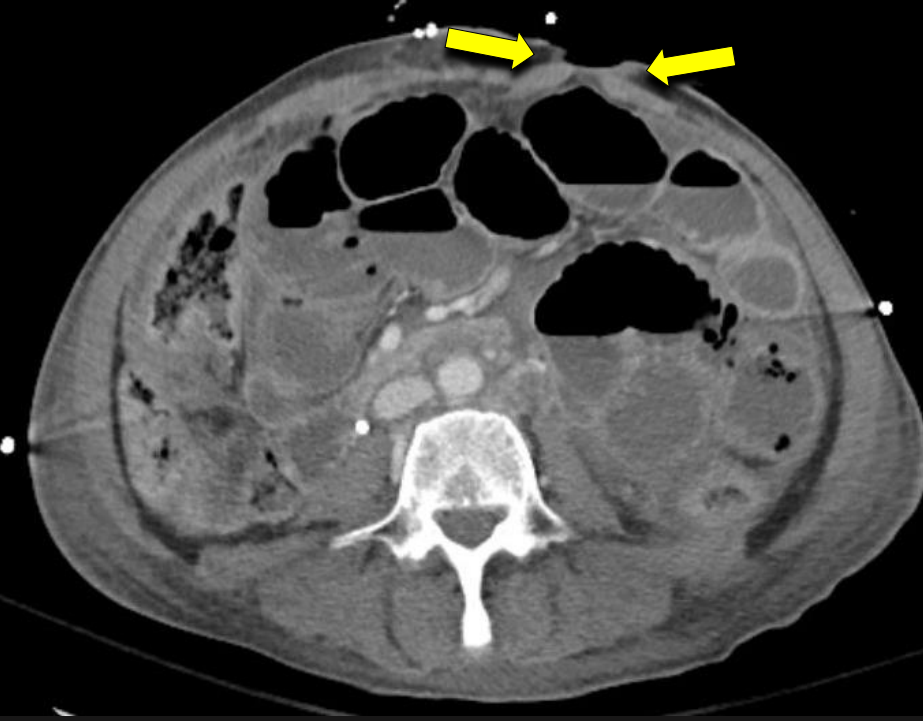
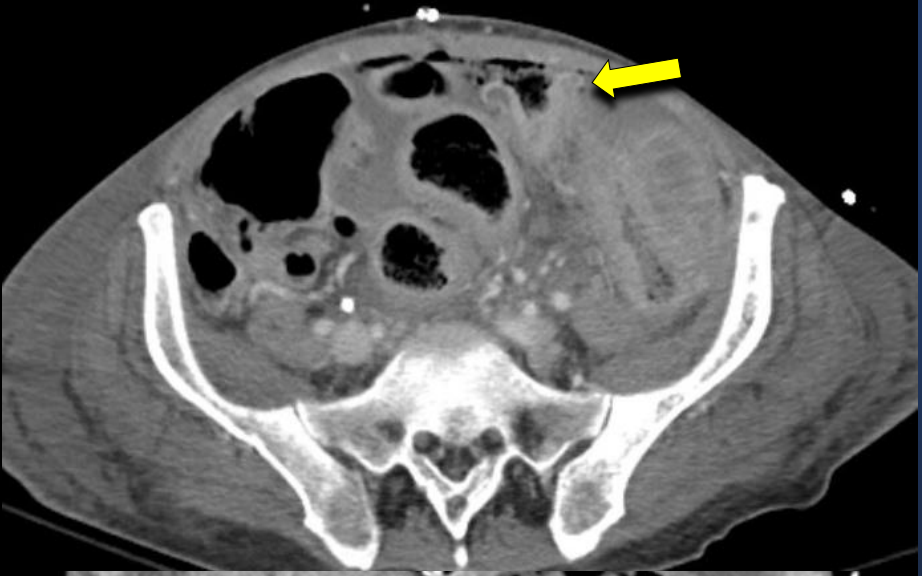
1 hour later

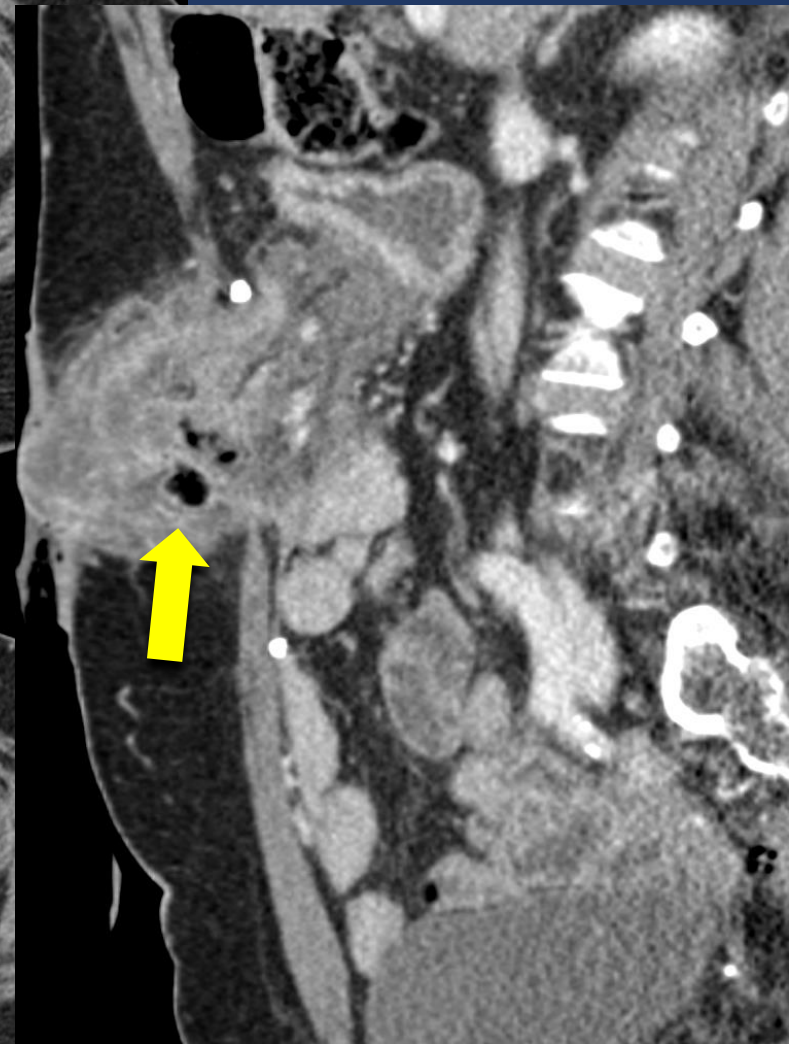
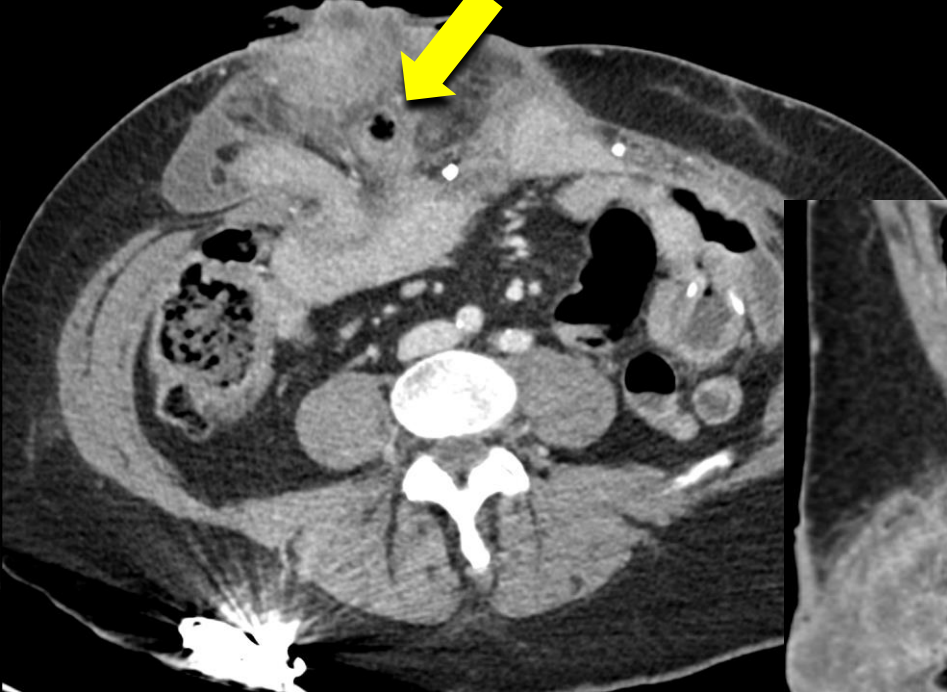
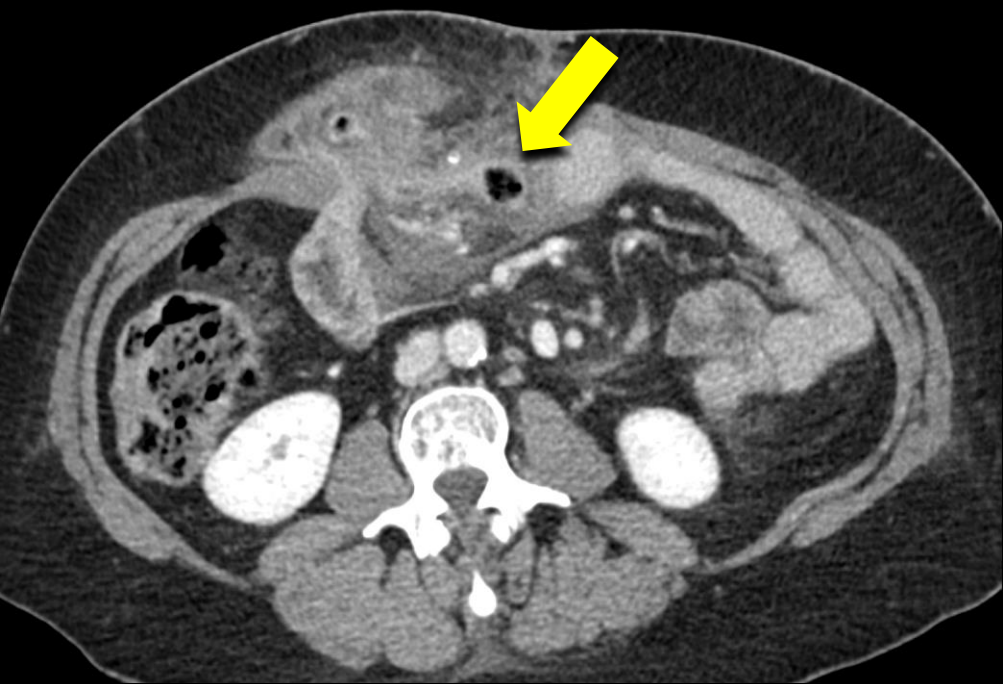


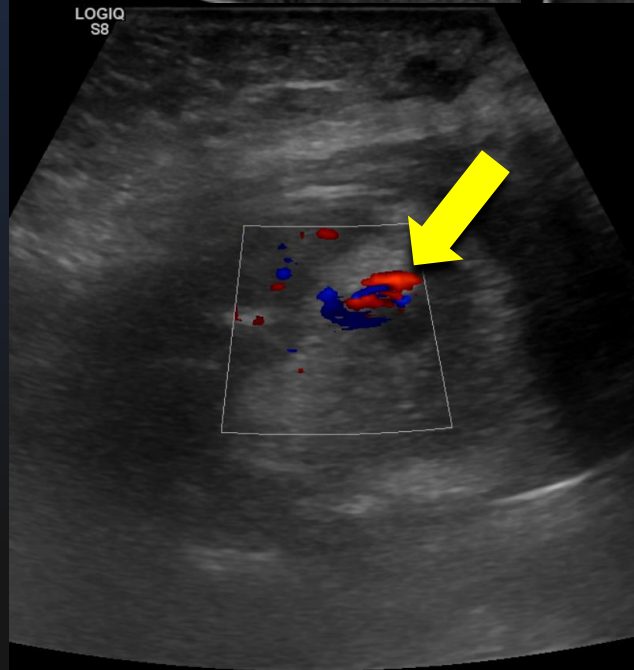
6 days post-op

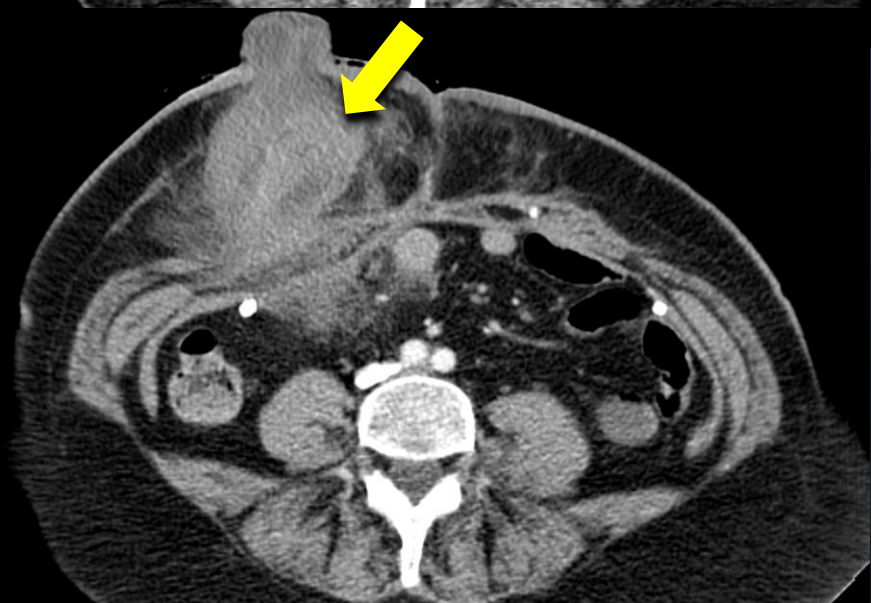
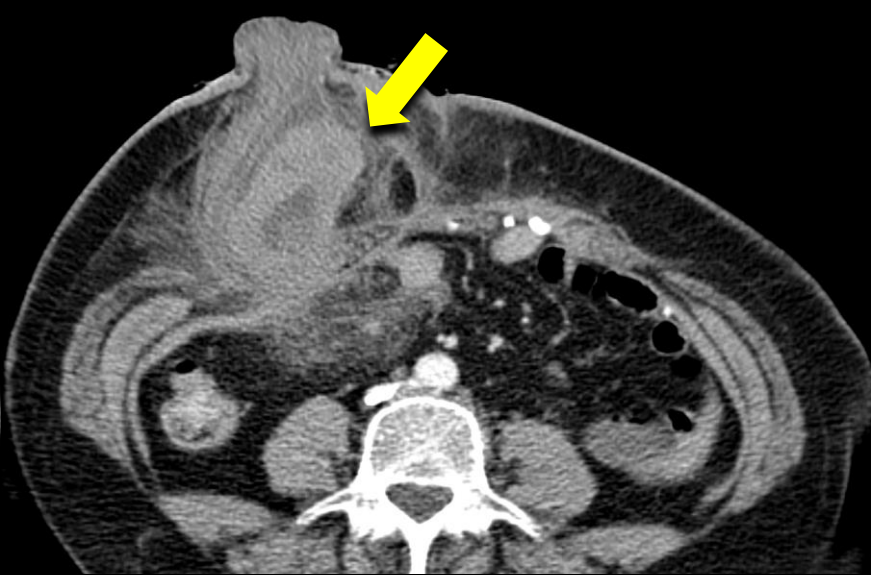


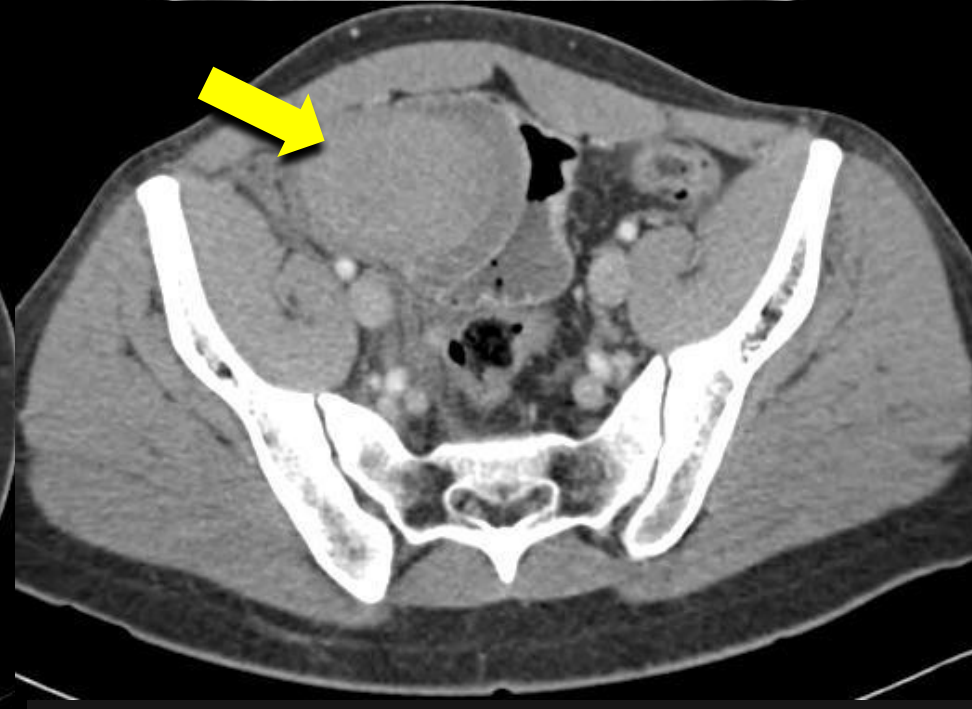
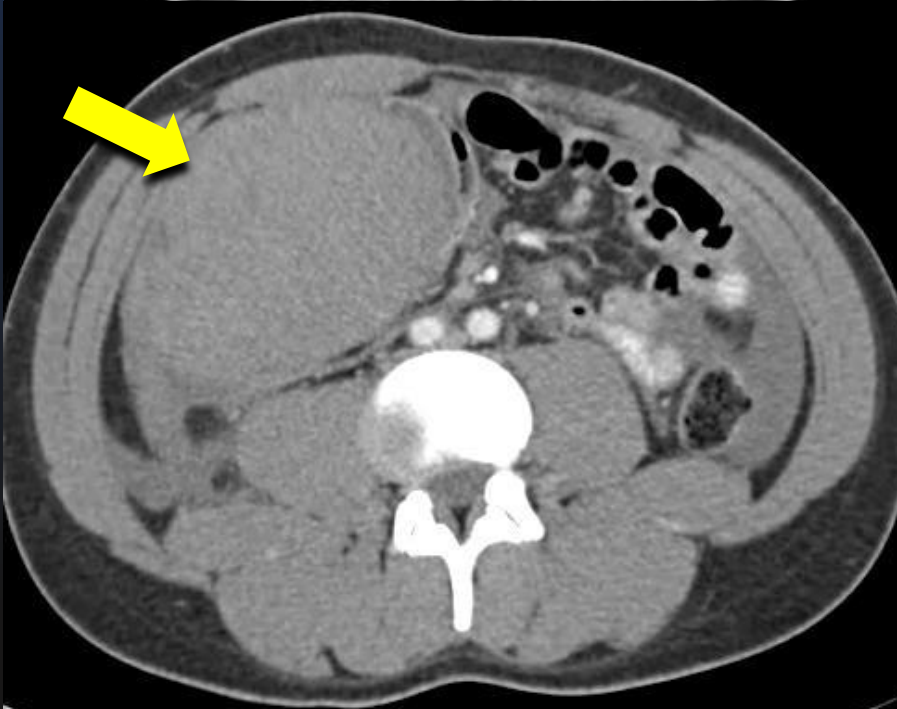
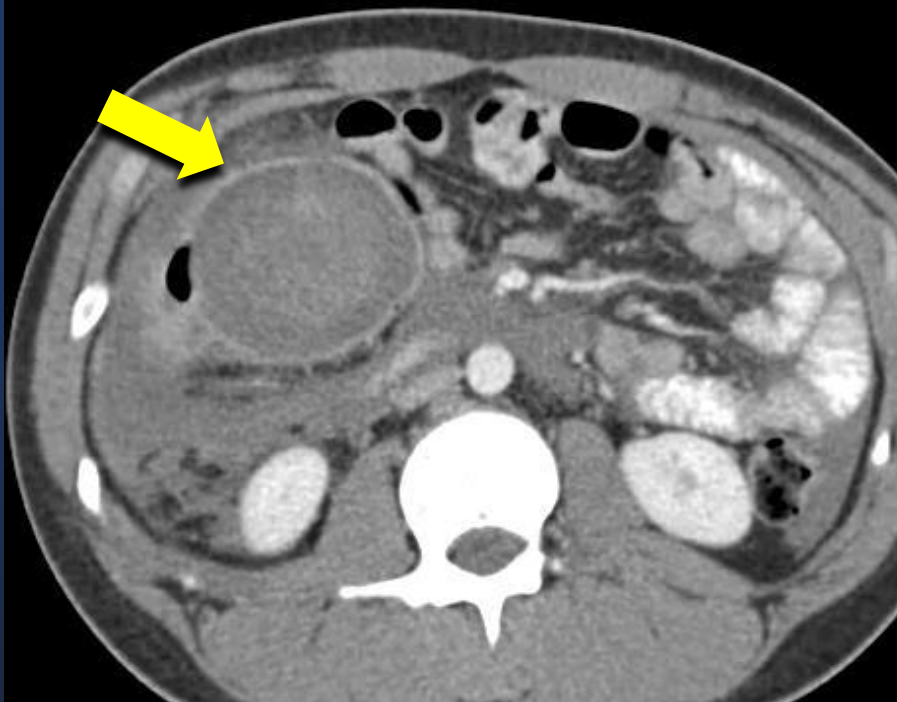
17 days post-op

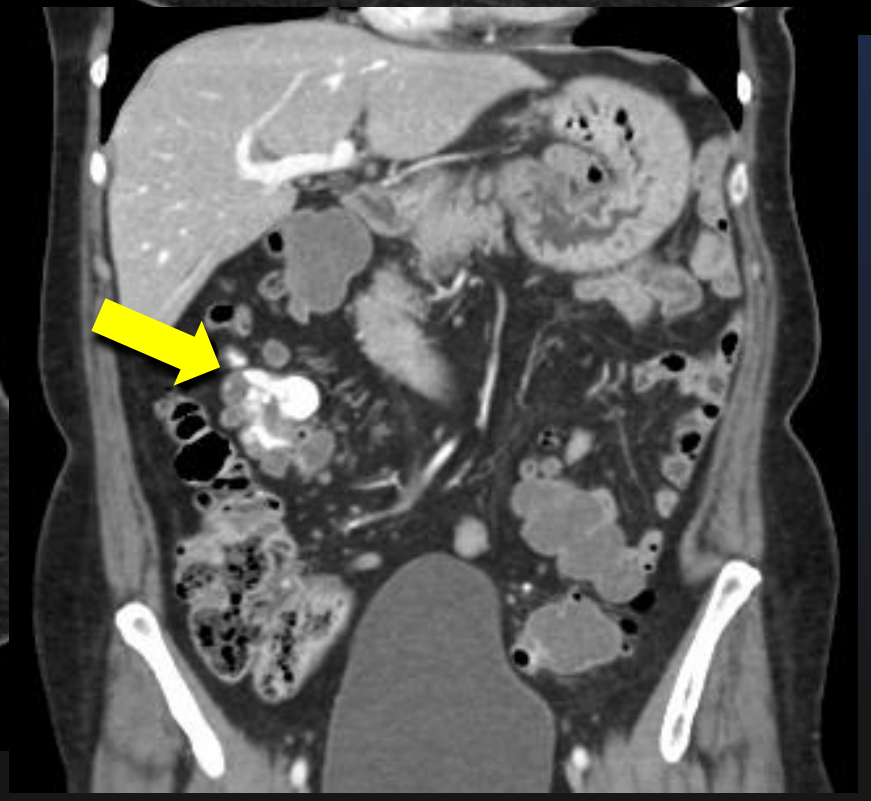






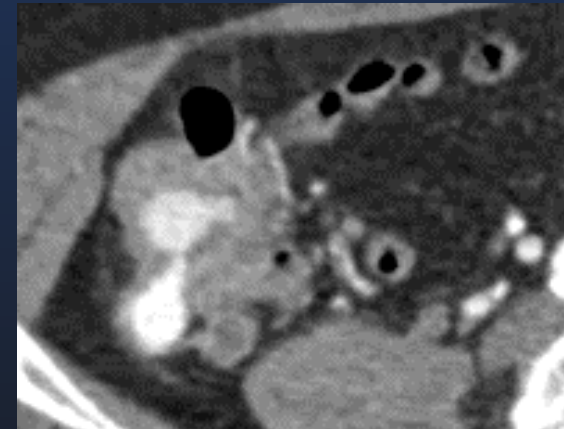
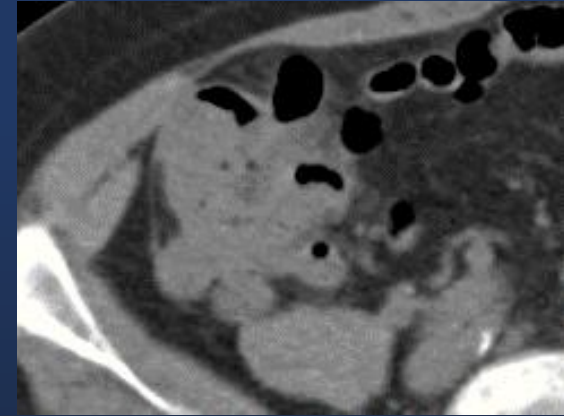


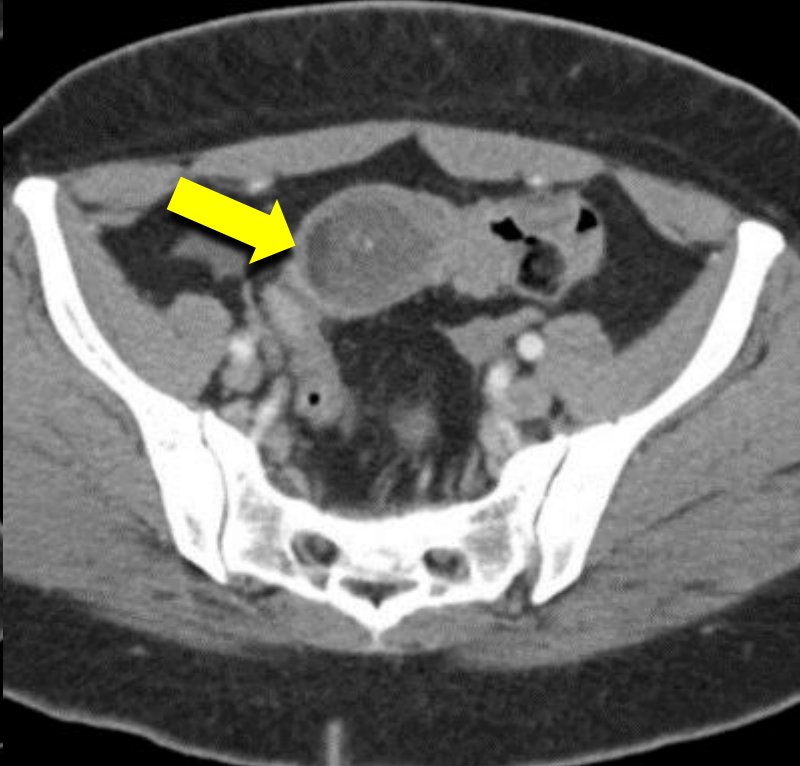
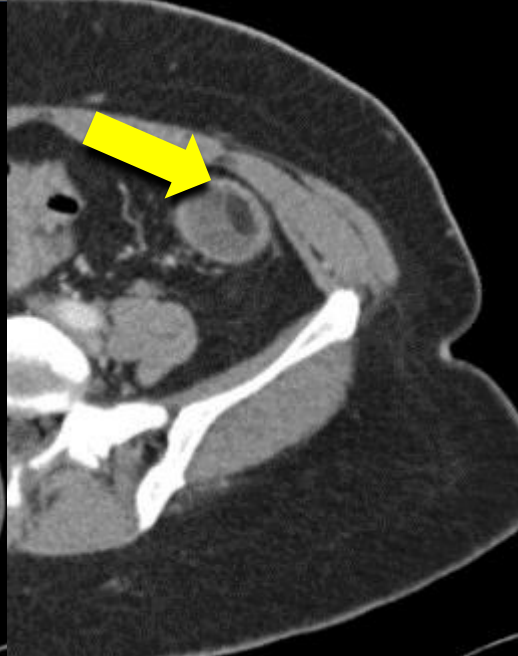
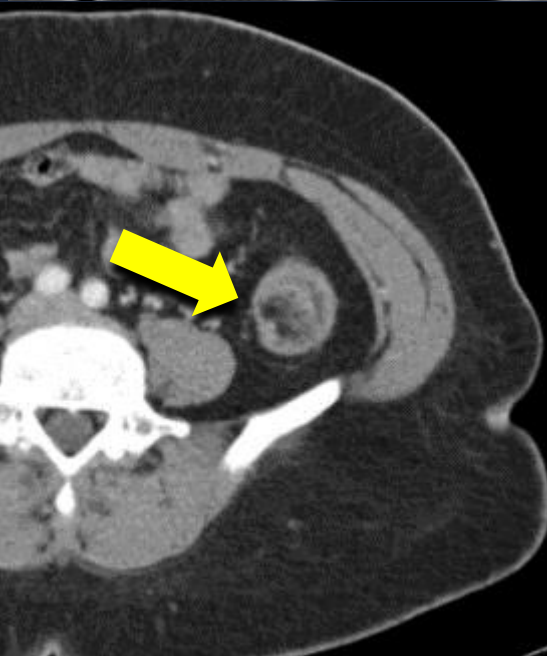
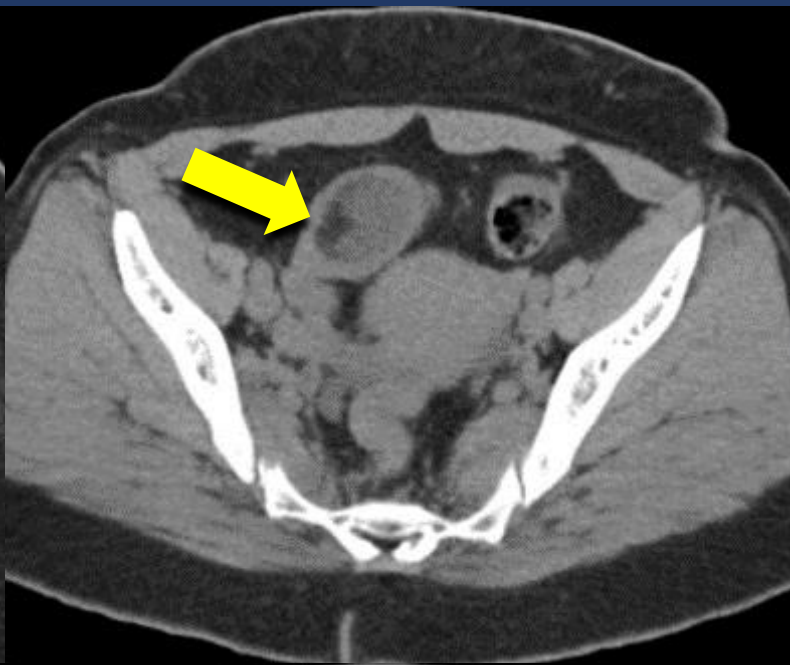
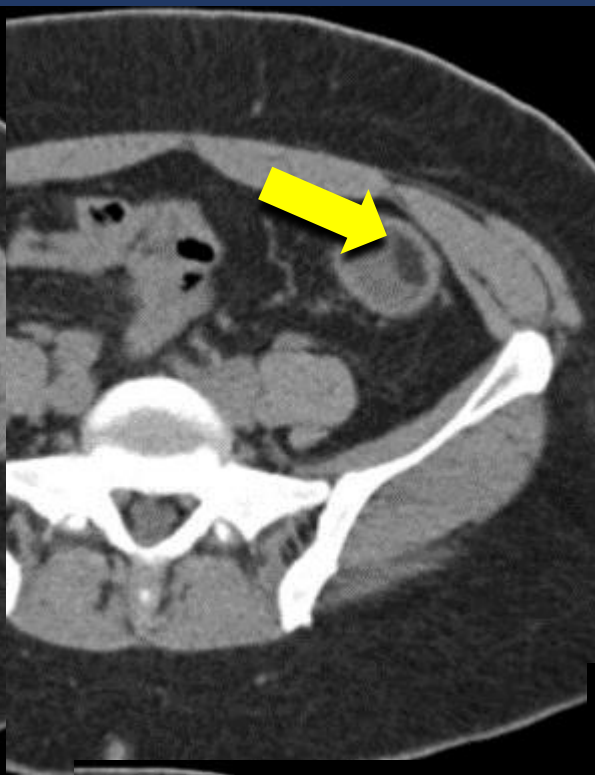
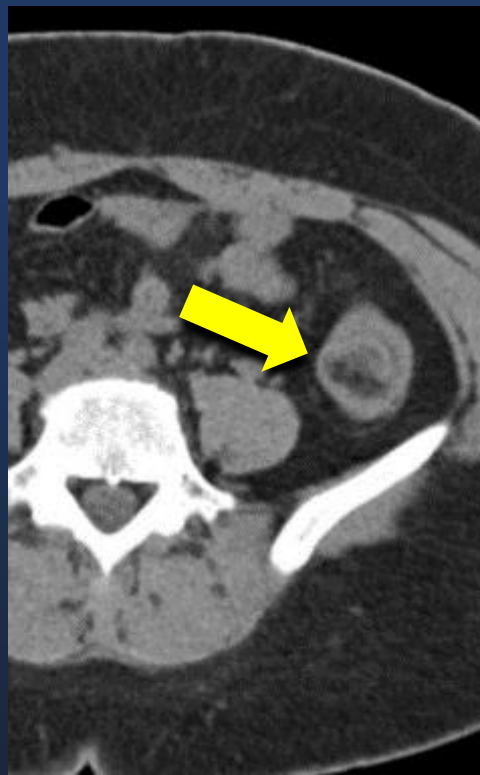




Colonic Hemorrhage

- Common causes:
 - Diverticulosis
 - Angiodysplasia
 - Neoplasms
 - Internal hemorrhoids
- Imaging modalities
 - Tagged RBC scintigraphy ~ 0.1-0.2 ml/min
 - Conventional angiography ~ 0.5 ml/min
 - **CTA ~ 0.35ml/min**
 - Capsule endoscopy





Conclusions

- Colonic wall thickening – attenuation, history, distribution, severity, ancillary findings
- Ischemia – don't forget hemorrhage and “benign” pneumatosis
- Obstruction – wall, course, and contents