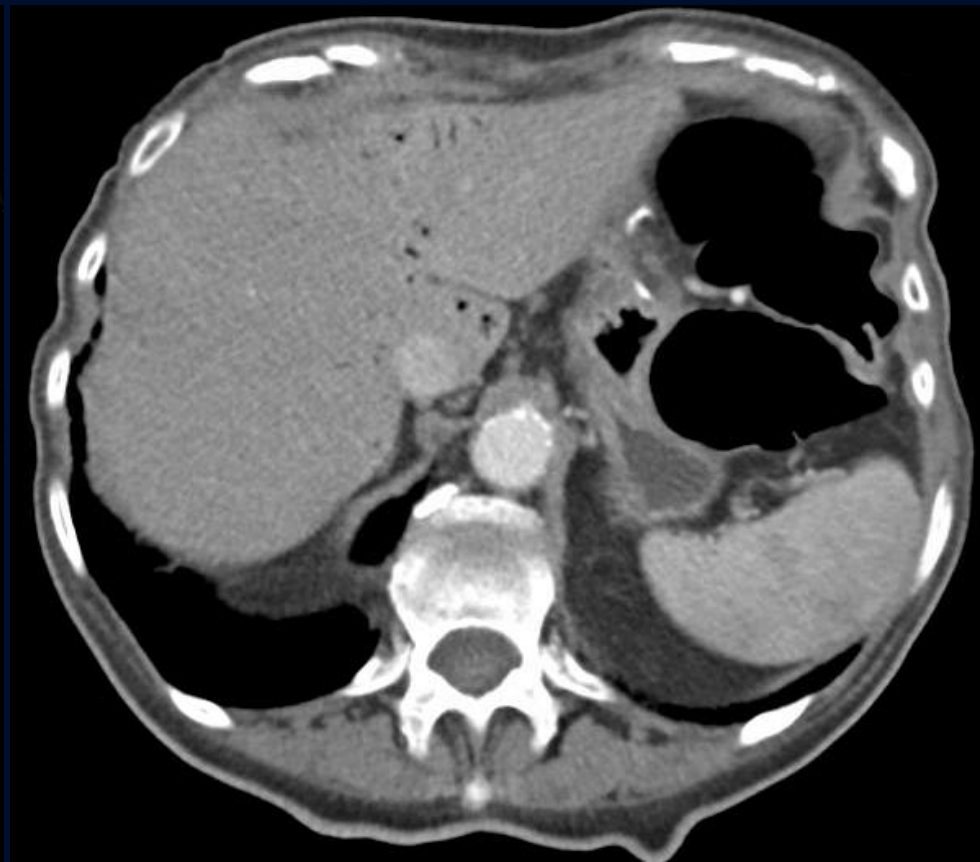
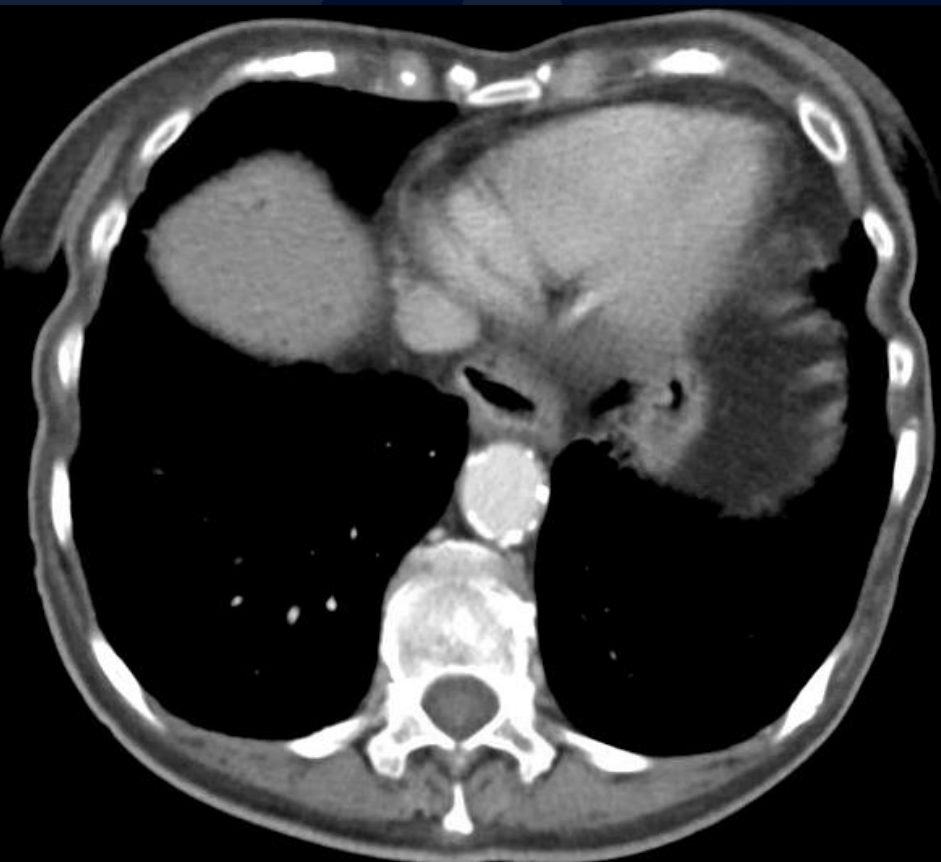


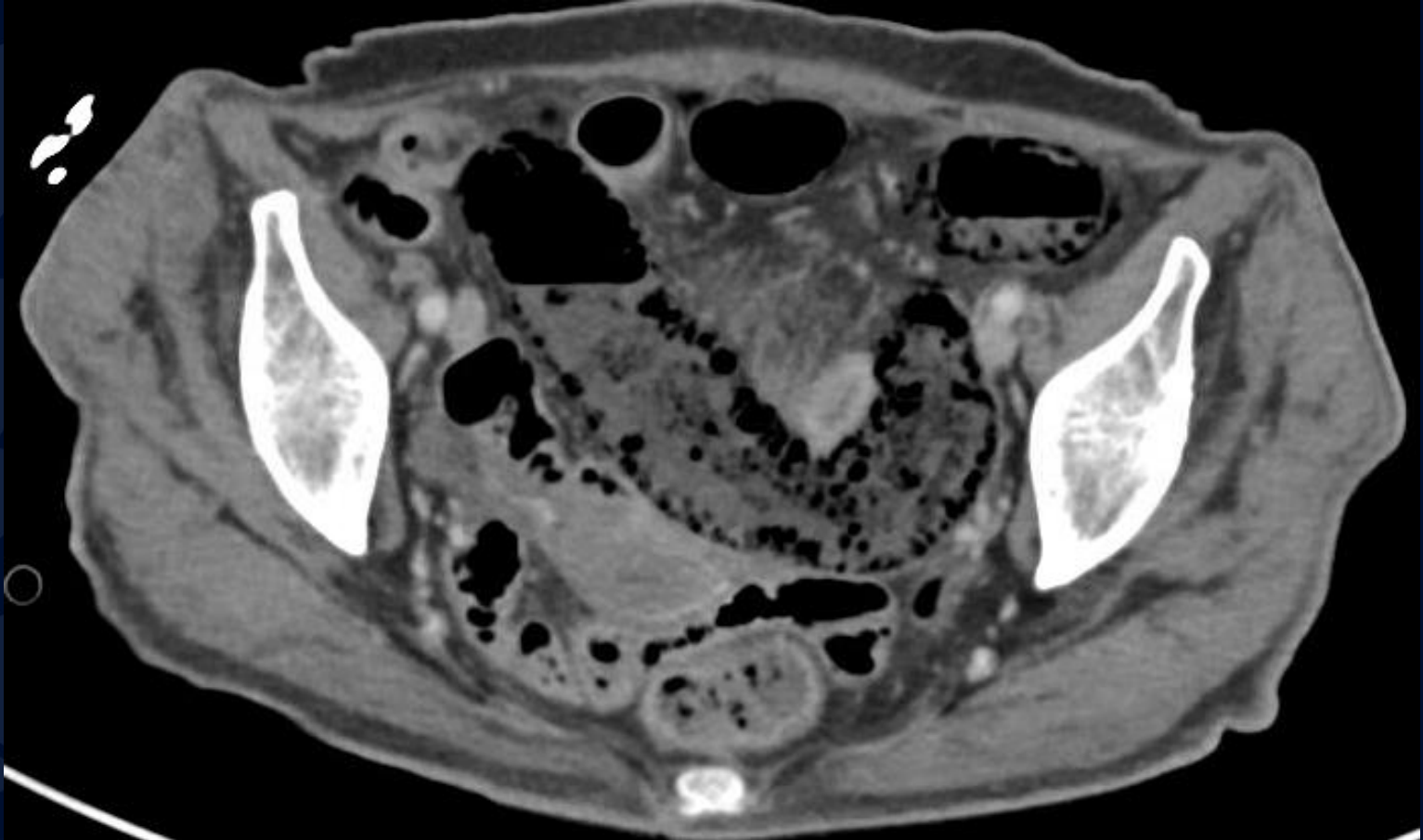
86-year-old female presenting
with 1-day history of abdominal
pain, nausea, vomiting, and non-
bloody diarrhea

Xenia Bradley, MS3

CT IV Contrast



CT IV Contrast



CT IV Contrast

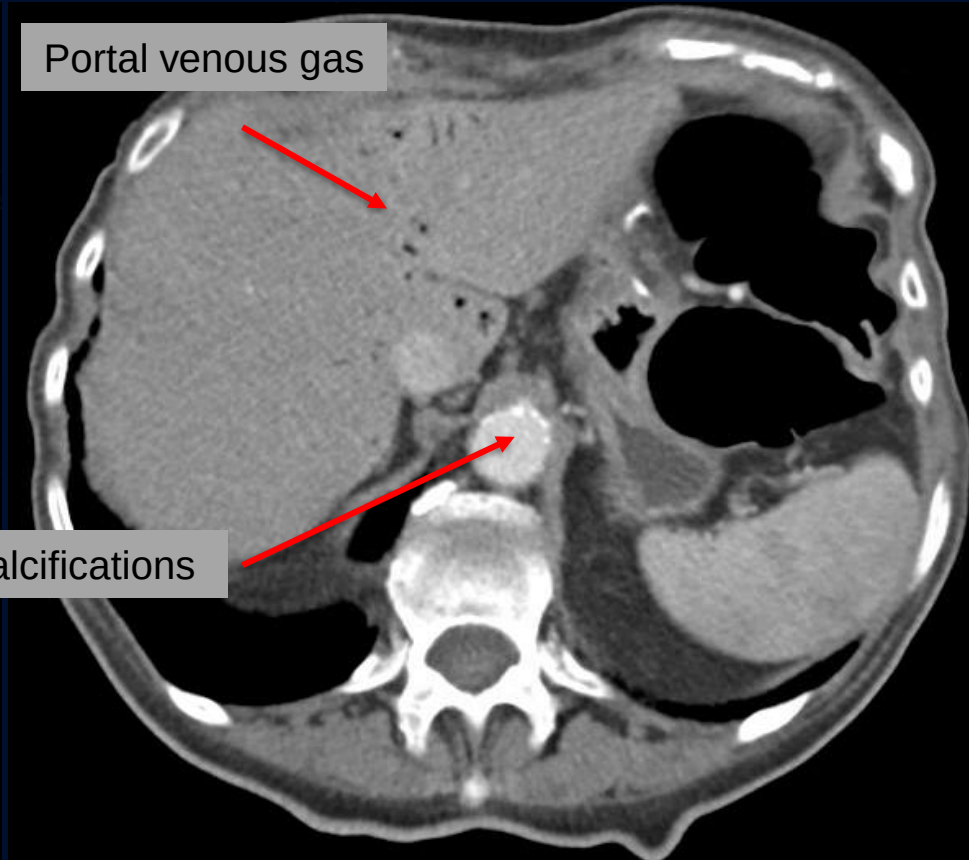
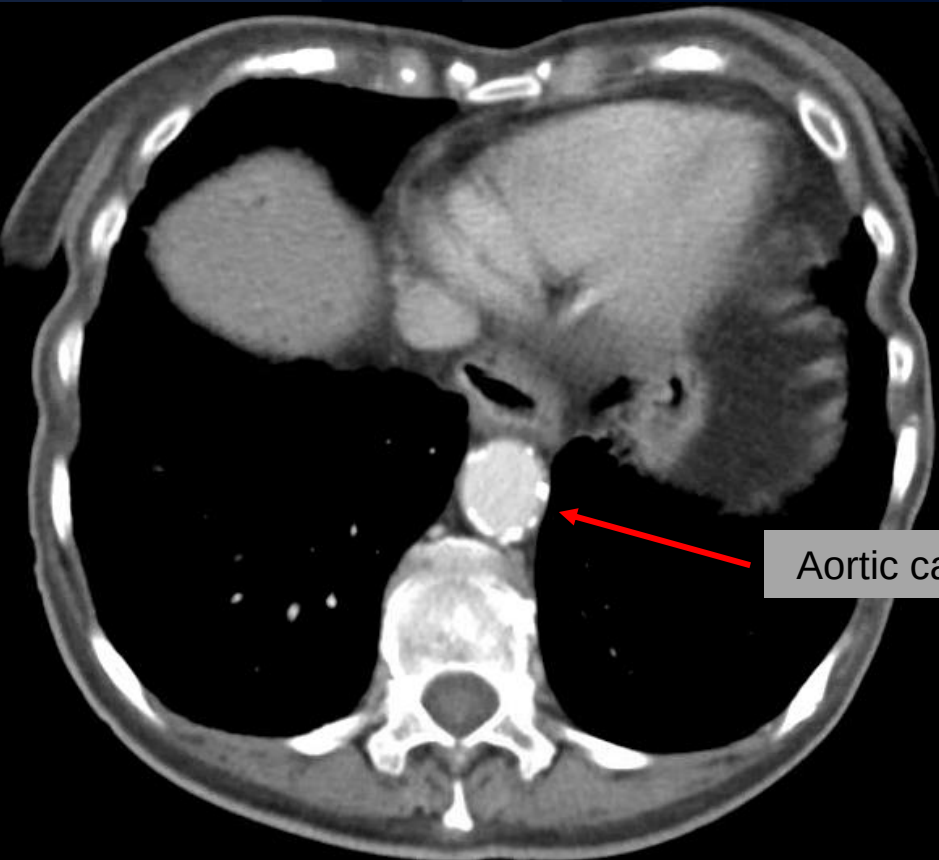


A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide.

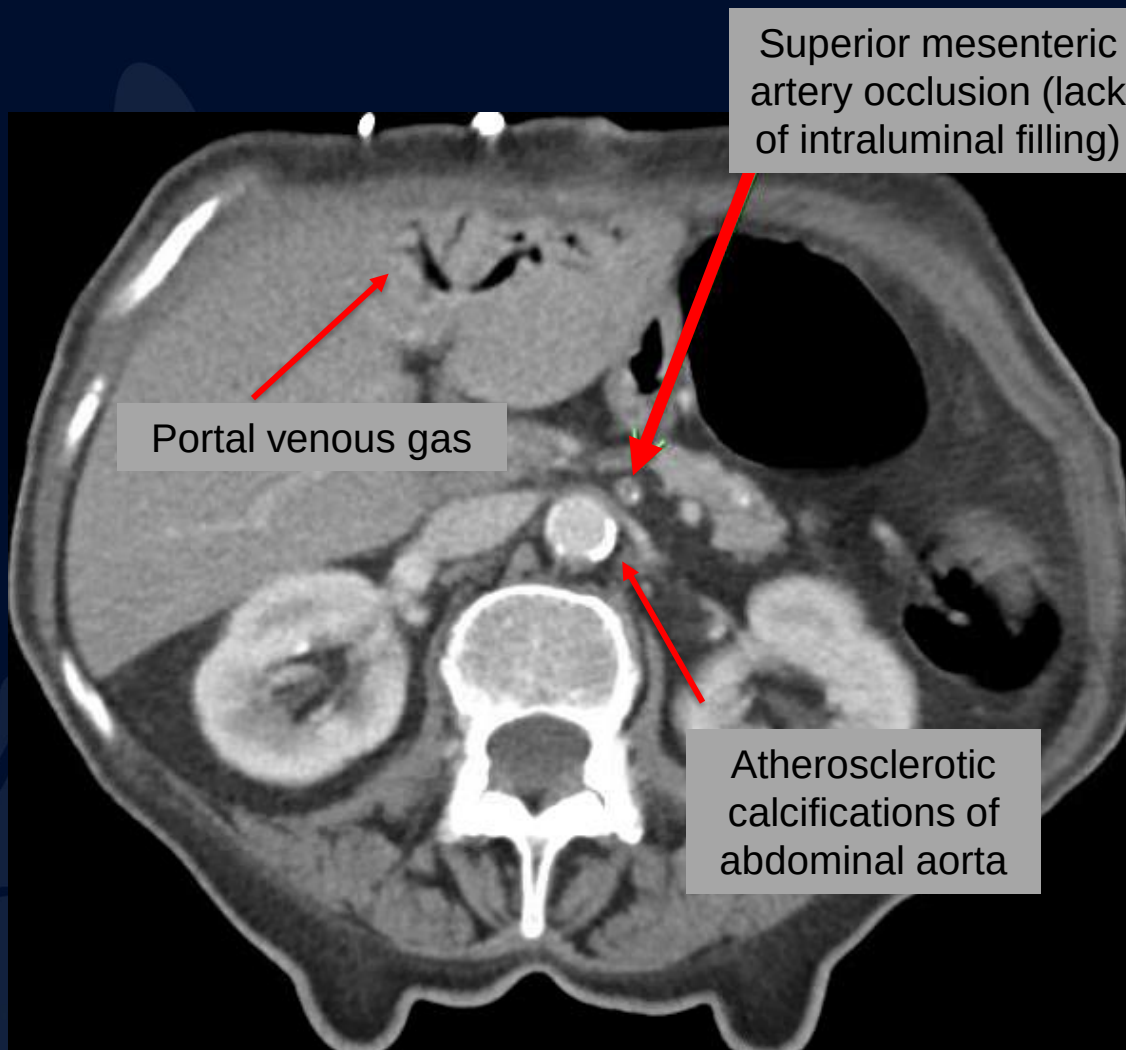
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Small Bowel Necrosis Secondary to Acute-on-Chronic Mesenteric Ischemia

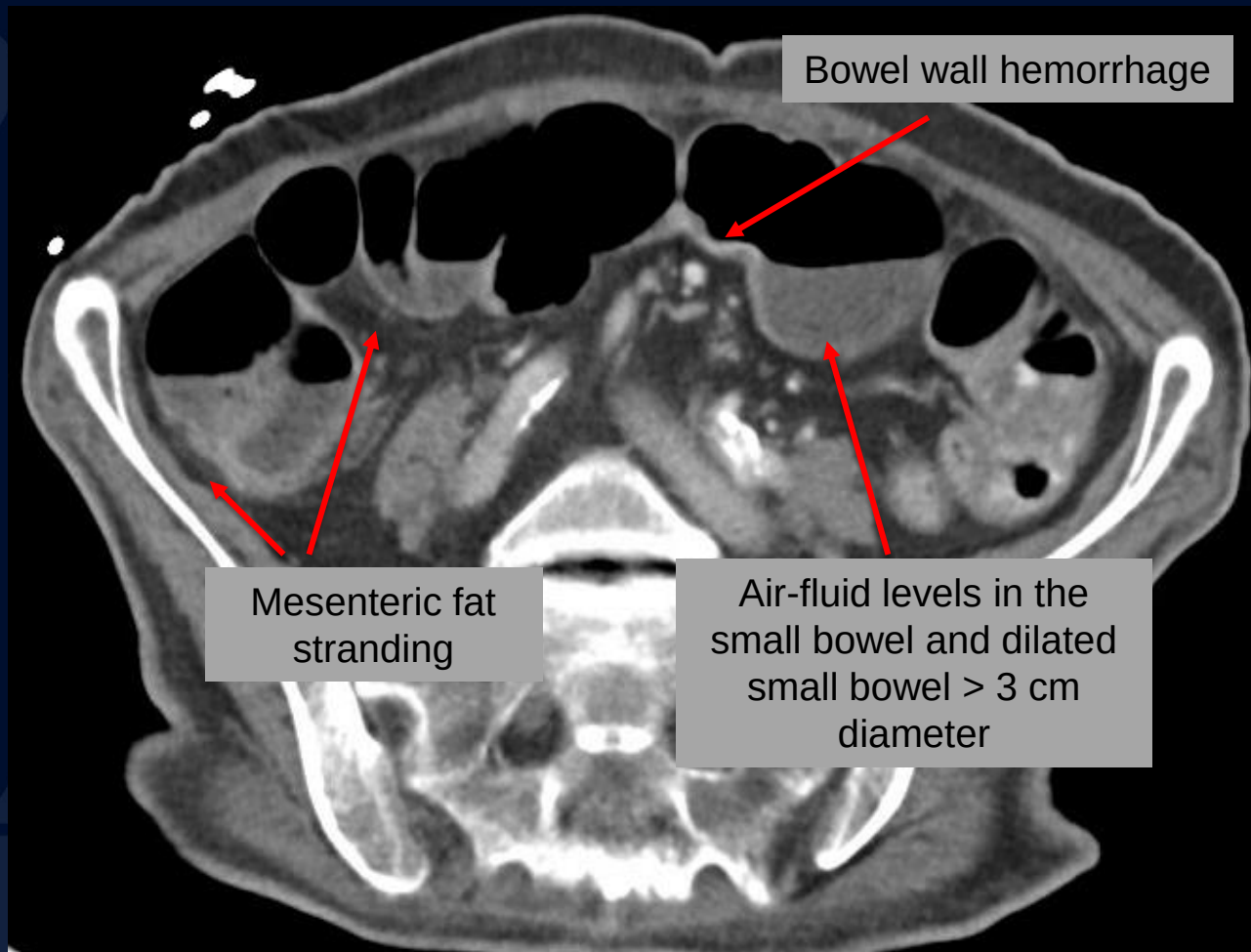
CT IV Contrast



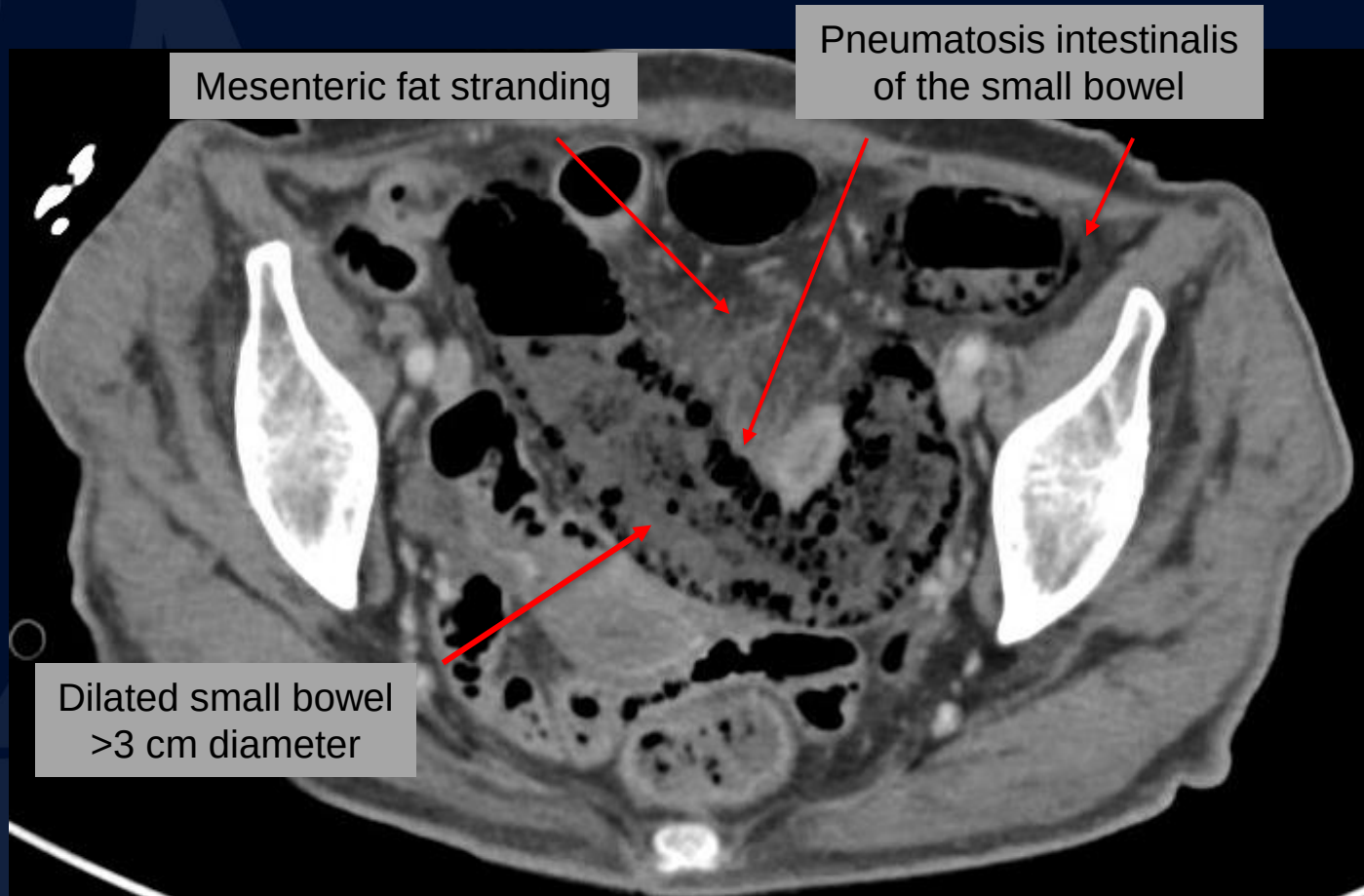
CT IV Contrast



CT IV Contrast



CT IV Contrast

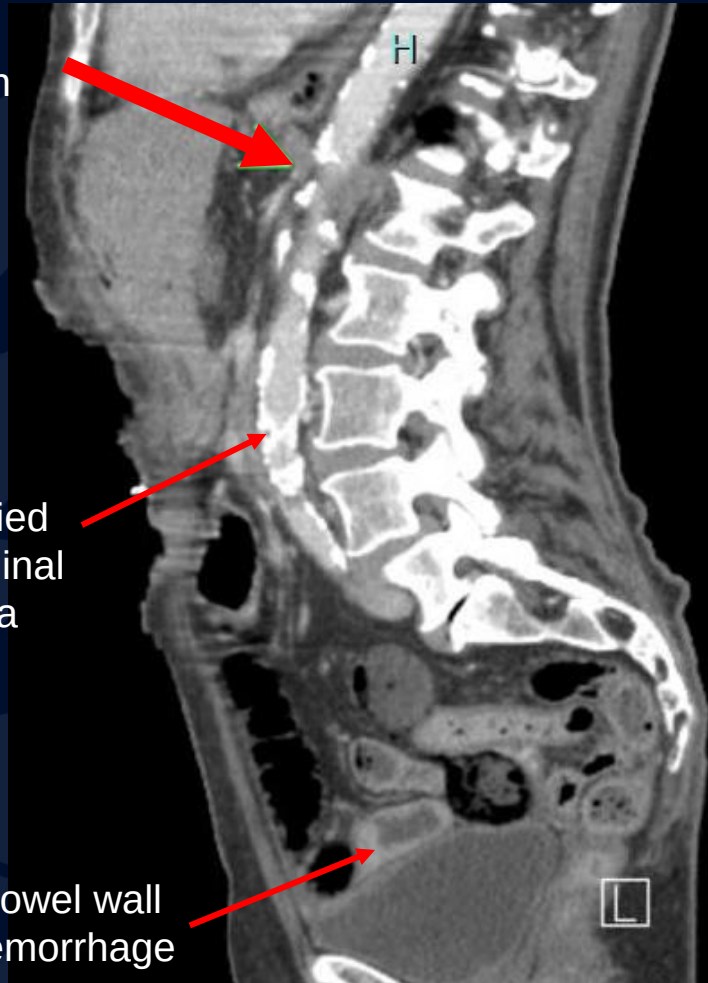


CT IV Contrast

SMA
occlusion

Calcified
abdominal
aorta

Bowel wall
hemorrhage



Pneumatosis
intestinalis of the small
bowel



Mesenteric Ischemia

- **Pathophysiology:** vascular compromise of the bowel and its mesentery – very high mortality if not emergently treated
 - Acute mesenteric ischemia is a more common etiology than chronic mesenteric ischemia
- **Clinical presentation:** severe abdominal pain disproportionate to exam
 - Dehydration and fluid loss from third-spacing can cause mental confusion, tachycardia, tachypnea, circulatory collapse.
 - Lab findings likely include metabolic acidosis with elevated anion gap and lactate levels, leukocytosis, and hemoconcentration
- **CT** is the first-line diagnostic study
 - **P**neumatosis intestinalis and portalis, **p**neumoperitoneum from bowel perforation, arterial changes (lack of enhancing SMA lumen), bowel changes (thick or thin wall, dilated bowel loops, air-fluid levels), free fluid, mesenteric edema
- **Treatment:** endovascular thrombolysis / thrombectomy if thrombus identifiable, necrotic bowel resection, arterial bypass
- **Prognosis:** arterial occlusive mesenteric ischemia 75-90% mortality despite treatment

References

- Oldenburg WA, Lau LL, Rodenberg TJ, Edmonds HJ, Burger CD. Acute Mesenteric Ischemia: A Clinical Review. *Arch Intern Med*. 2004;164(10):1054–1062. doi:10.1001/archinte.164.10.1054
- Olson MC, Fletcher JG, Nagpal P, Froemming AT, Khandelwal A. Mesenteric ischemia: what the radiologist needs to know. *Cardiovasc Diagn Ther*. 2019 Aug;9(Suppl 1):S74-S87. doi: 10.21037/cdt.2018.09.06. PMID: 31559155; PMCID: PMC6732105.
- St. Peter SD, Abbas MA, Kelly KA. The Spectrum of Pneumatosis Intestinalis. *Arch Surg*. 2003;138(1):68–75. doi:10.1001/archsurg.138.1.68
- <https://radiopaedia.org/articles/arterial-occlusive-mesenteric-ischaemia?lang=us>
- <https://radiopaedia.org/articles/mesenteric-ischaemia?lang=us>