AMSER Case of the Month September 2025

74 y/o F with hypotension and hematochezia

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Patient Presentation

- HPI: 74-year-old female with a complex medical history, including multiple colonic arteriovenous malformations (AVMs) on prior endoscopy, presented to the emergency department with hypotension, acute-on-chronic anemia, and hematochezia.
- Past medical history: Antiphospholipid antibody syndrome, chronic kidney disease, atrial fibrillation, coronary artery disease, chronic respiratory failure, right lung malignancy
- Past surgical history: Aortic valve replacement

Pertinent Labs

- Hemoglobin: 7.4 g/dL
- RBC: 2.48 m/mcL
- Ferritin: 10 ng/mL
- Iron: 30 µg/dL
- Creatinine: 1.93 mg/dL
- Lactate: 2.4 mmol/L
- PT: 39.0 sec
- INR: 3.8

What Imaging Should We Order?

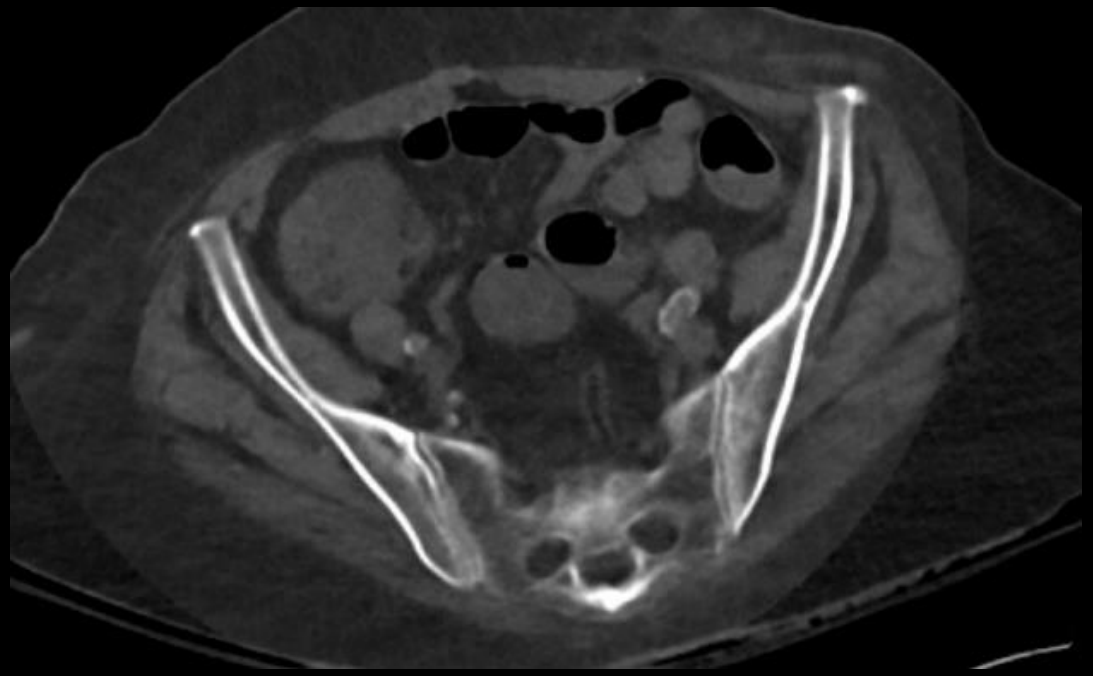
Select the applicable ACR Appropriateness Criteria

Variant 2: **Lower gastrointestinal tract bleeding. Active bleeding in a hemodynamically unstable patient or a patient who has required more than 5 units of blood within 24 hours. Next step.**

Procedure	Appropriateness Category
CTA abdomen and pelvis without and with IV contrast	Usually Appropriate
Transcatheter arteriography/embolization	Usually Appropriate
Diagnostic/therapeutic colonoscopy	May Be Appropriate (Disagreement)
Surgery	May Be Appropriate
MRA abdomen and pelvis without and with IV contrast	Usually Not Appropriate
RBC scan abdomen and pelvis	Usually Not Appropriate

This imaging modality was ordered by the ER physician

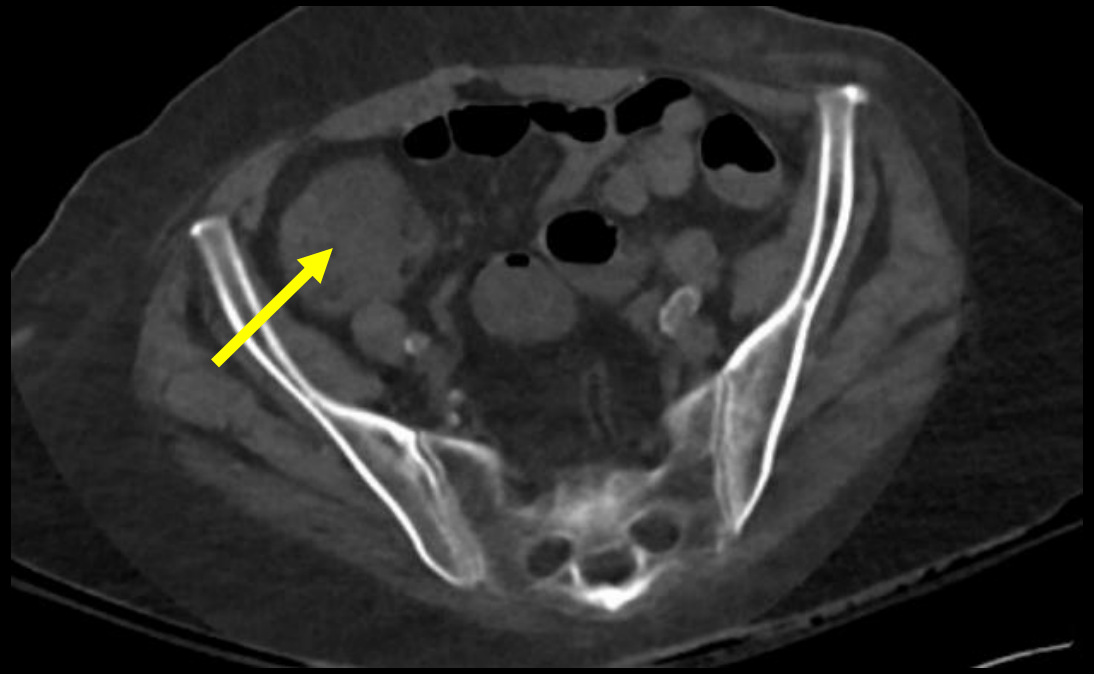
Findings (unlabeled)



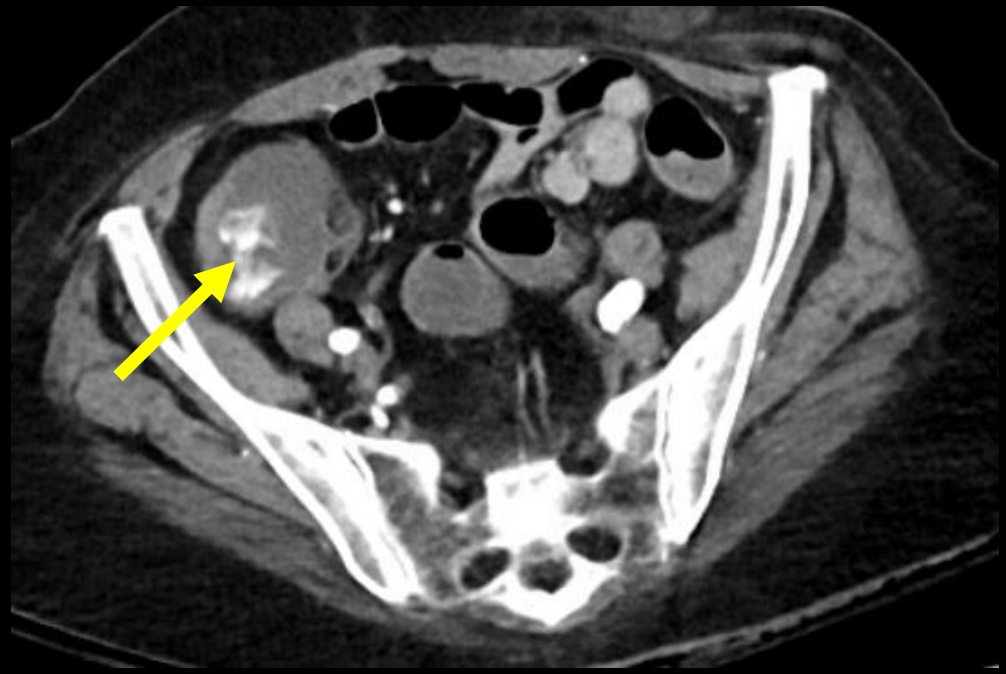
CTA pre-contrast

CTA with contrast

Findings (labeled)



CTA pre-contrast



CTA with contrast

Findings: Hyperdense focus in the cecum on arterial phase CTA imaging but not on the pre-contrast image, consistent with active arterial extravasation.

What Imaging/procedure Should We Order?

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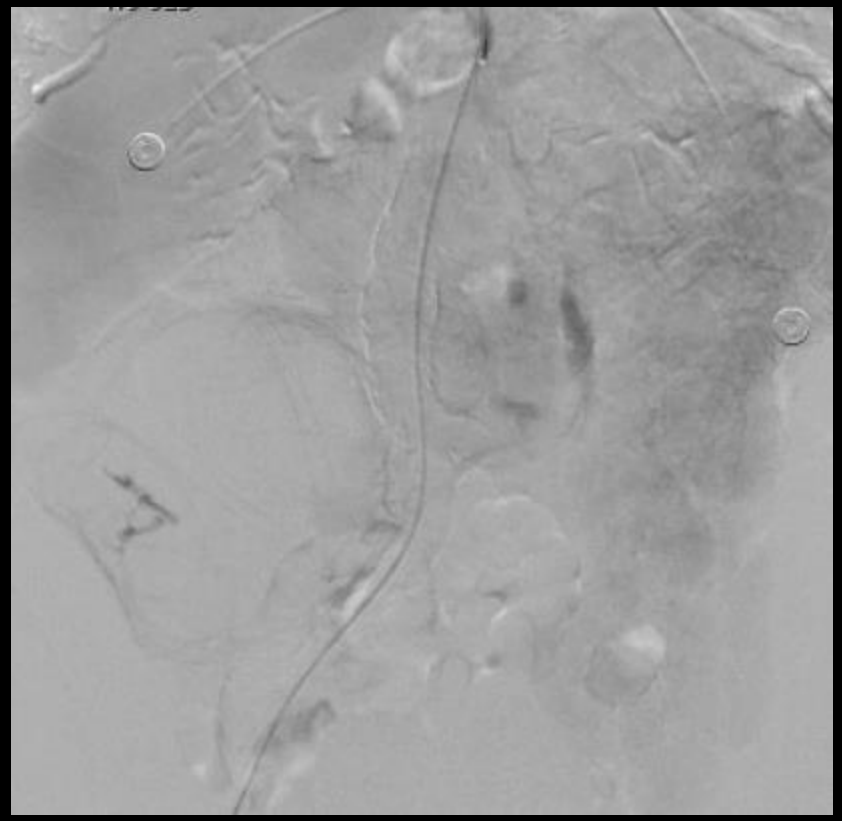
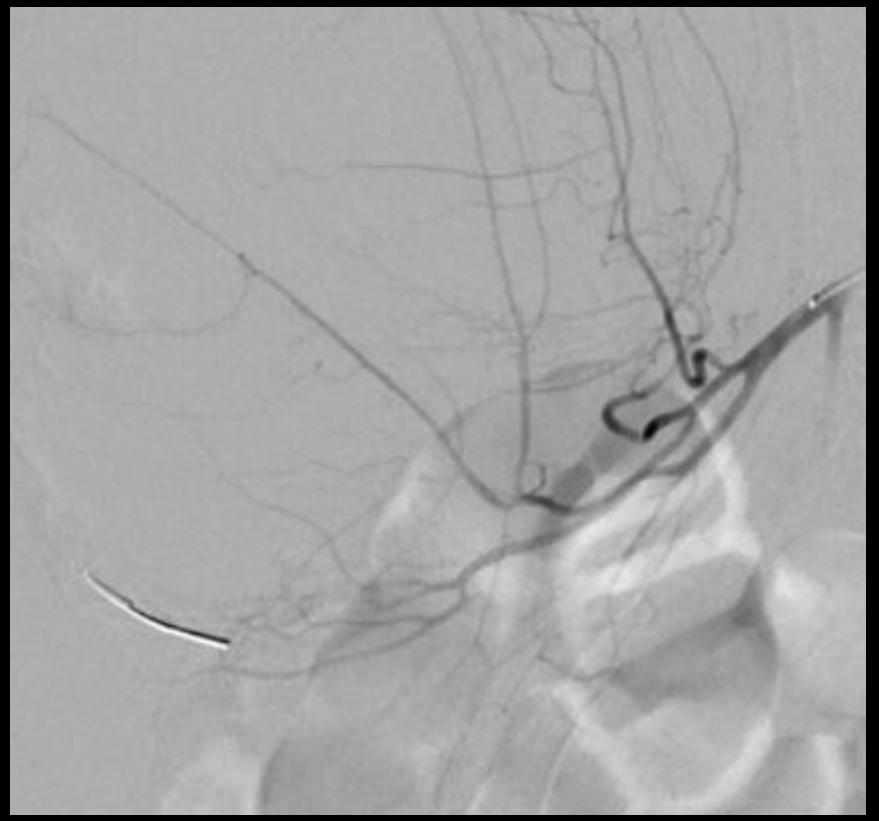
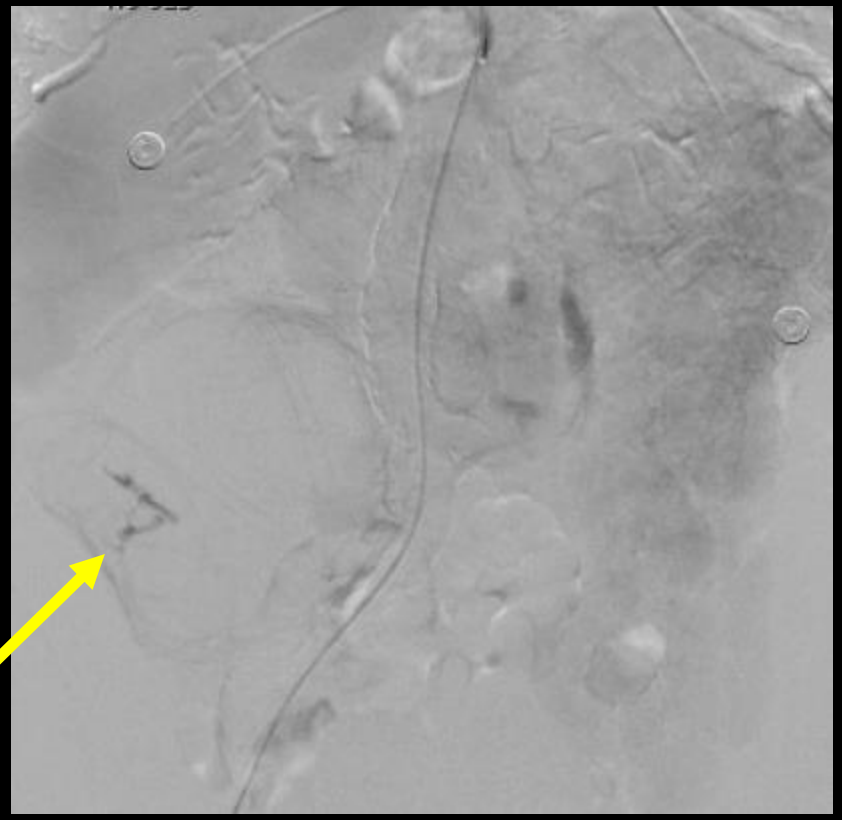


Pre-treatment arteriography



Post-treatment arteriography

Findings (labeled)



Active extravasation of blood into the cecum.

No further arterial extravasation following coil embolization using Hilal 0.018” straight fibered coils.

Final Dx:

Active cecal bleed from a third-order ileocolic branch of the SMA, treated with coil embolization.

Case Discussion: Angiographic Localization and Coil Embolization

- **Access obtained via right common femoral artery**
- **Subselective catheterization** with arteriography identified active bleeding from a third-order branch of the ileocolic artery
- **Coil embolization** using 0.018" Hilal straight fibered coils achieved successful hemostasis
- **Post-embolization arteriogram** confirmed no further extravasation and preserved flow to adjacent bowel
- No evidence of mass, ulceration, or inflammation at the bleeding site, suggesting Dieulafoy’s lesion as the culprit

Case Discussion: Common Etiologies of Lower GI Bleeding

- **Diverticulosis:** Most common cause of lower GI bleeding in older adults, usually painless[1]
- **Dieulafoy's lesion:** Dilated submucosal blood vessel that bleeds in the absence of any abnormality, such as ulcers or erosions[2]
- **Ischemic Colitis:** Presents with crampy abdominal pain and hematochezia, typically affecting watershed areas like the splenic flexure and rectosigmoid junction[3]
- **Neoplasms:** Most commonly adenomatous polyps or adenocarcinoma of the colon, accounting for 10 to 15% of lower GI bleeds[4]
- **IBD:** Rare but life-threatening complication, with the degree of hemorrhage correlating with the severity of the disease[5]
- **In this case**: The presence of active arterial extravasation from a third-order ileocolic branch without associated mass or ulceration raises suspicion for a focal vascular anomaly such as Dieulafoy's lesion

References:

- 1. Bhatt NR, Boland MR, Abdelraheem O, Merrigan AB. Lower gastrointestinal bleeding in the elderly: a rare aetiology masquerading as a diverticular bleed. *BMJ Case Rep*. 2016;2016:bcr2015214089. Published 2016 Mar 31. doi:10.1136/bcr-2015-214089
- 2. Malik TF, Anjum F. Dieulafoy's lesion causing gastrointestinal bleeding. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025 Jan–. Updated 2023 Apr 27. Available from: https://www.ncbi.nlm.nih.gov/books/NBK562267/
- 3. Washington C, Carmichael JC. Management of ischemic colitis. Clin Colon Rectal Surg. 2012;25(4):228-235. doi:10.1055/s-0032-1329534
- 4. Adegboyega T, Rivadeneira D. Lower GI Bleeding: An Update on Incidences and Causes. Clin Colon Rectal Surg. 2020;33(1):28-34. doi:10.1055/s-0039-1695035
- 5: Berg DF, Bahadursingh AM, Kaminski DL, Longo WE. Acute surgical emergencies in inflammatory bowel disease. Am J Surg. 2002;184(1):45-51. doi:10.1016/s0002-9610(02)00879-6