AMSER Case of the Month February 2021

80-year-old Female Presenting with Nonlocalized Abdominal Pain

Marco Lin, MS3, Michigan State College of Osteopathic Medicine

Danny Ma, MD, Department of Radiology Henry Ford Health system

Kate Klein, MD, Department of Radiology University of Michigan

Patient Presentation

HPI: 80-year-old female presented to the emergency department with a two day history of lower abdominal pain and vomiting. Patient had a similar episode one year ago.

PMHx: Appendectomy. History was limited due to language barrier.

PE: Vital signs within normal limits. Abdominal tenderness in right lower quadrant, suprapubic area, and left lower quadrant. The abdominal exam was otherwise negative for CVA tenderness and the Murphy, Rovsing and Mcburney signs.

Pertinent Labs

CBC with differential, and CMP were within normal limits

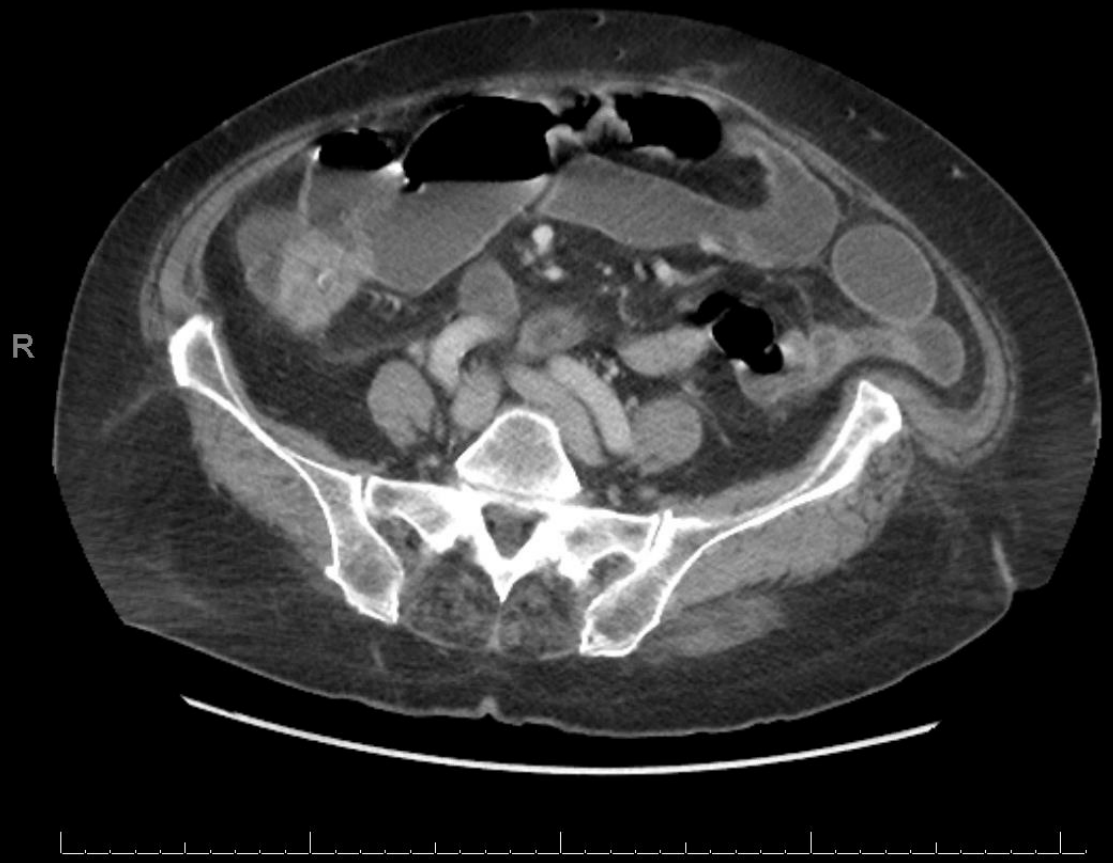
ACR Appropriateness Criteria

Variant 4: **Acute nonlocalized abdominal pain. Not otherwise specified. Initial imaging.**

Procedure	Appropriateness Category	Relative Radiation Level
CT abdomen and pelvis with IV contrast	Usually Appropriate	☢☢☢
CT abdomen and pelvis without IV contrast	Usually Appropriate	☢☢☢
MRI abdomen and pelvis without and with IV contrast	Usually Appropriate	O
US abdomen	May Be Appropriate	O
MRI abdomen and pelvis without IV contrast	May Be Appropriate	O
CT abdomen and pelvis without and with IV contrast	May Be Appropriate	☢☢☢☢
Radiography abdomen	May Be Appropriate	☢☢
FDG-PET/CT skull base to mid-thigh	Usually Not Appropriate	☢☢☢☢
WBC scan abdomen and pelvis	Usually Not Appropriate	☢☢☢☢
Nuclear medicine scan gallbladder	Usually Not Appropriate	☢☢
Fluoroscopy upper GI series with small bowel follow-through	Usually Not Appropriate	☢☢☢
Fluoroscopy contrast enema	Usually Not Appropriate	☢☢☢

Axial Contrast-Enhanced CT

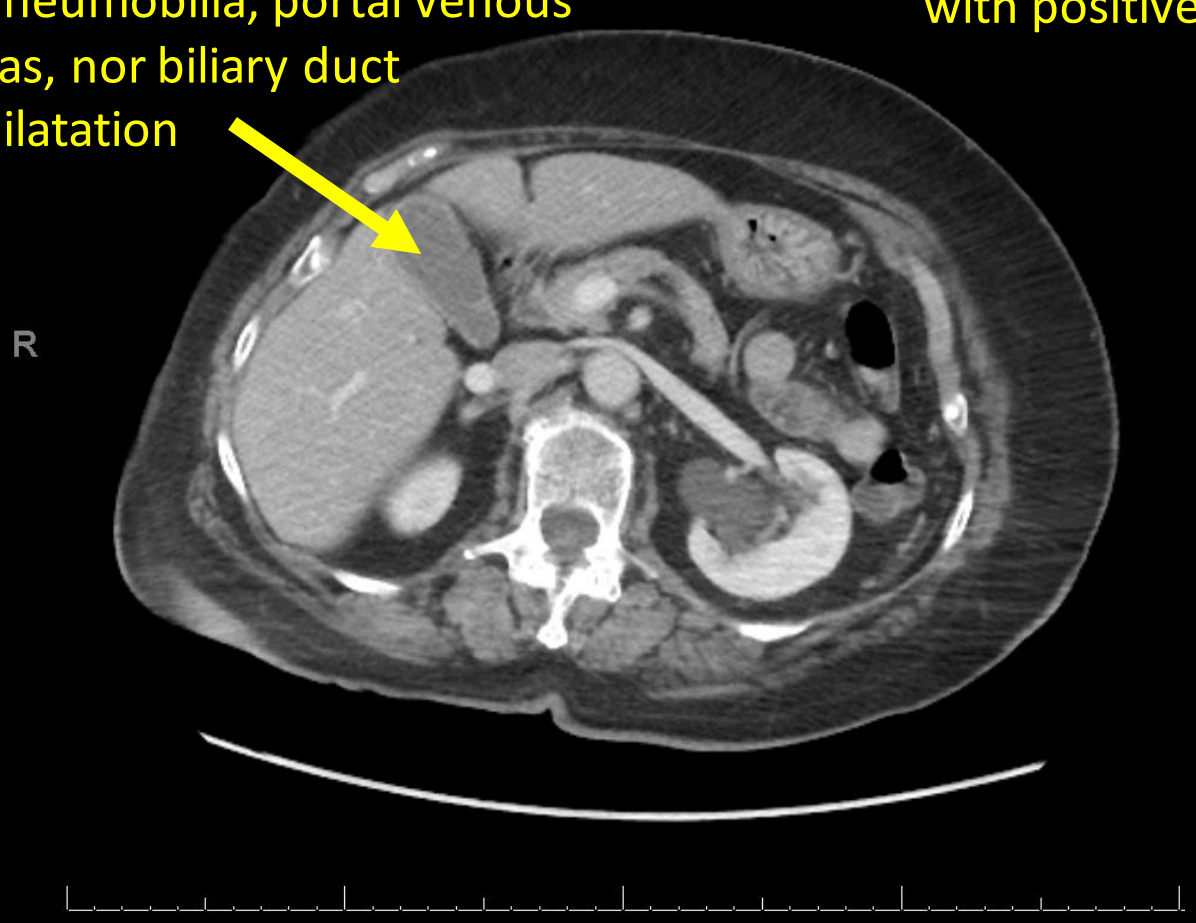
Axial Contrast-Enhanced CT



Coronal Contrast-Enhanced CT

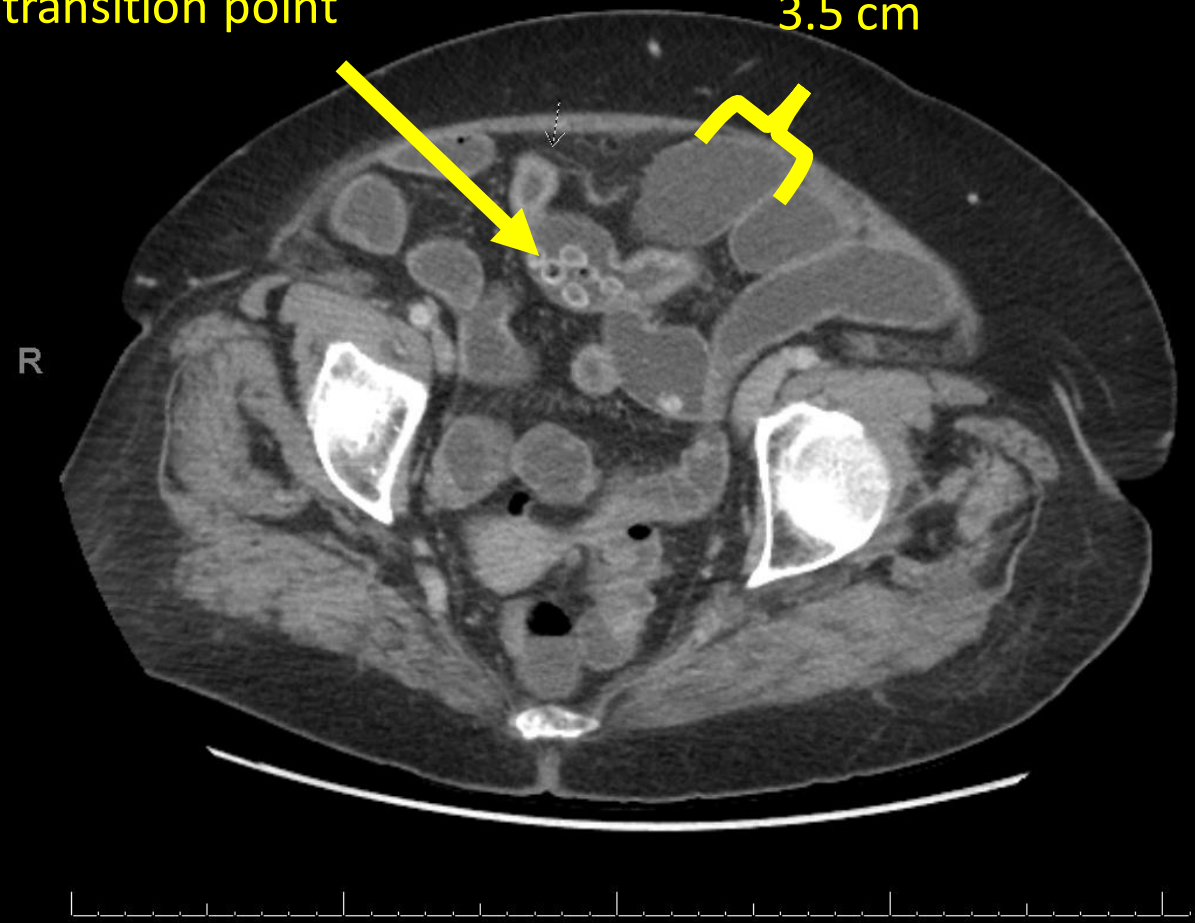
Axial Contrast-Enhanced CT

No calcified gall stones, pneumobilia, portal venous gas, nor biliary duct dilatation



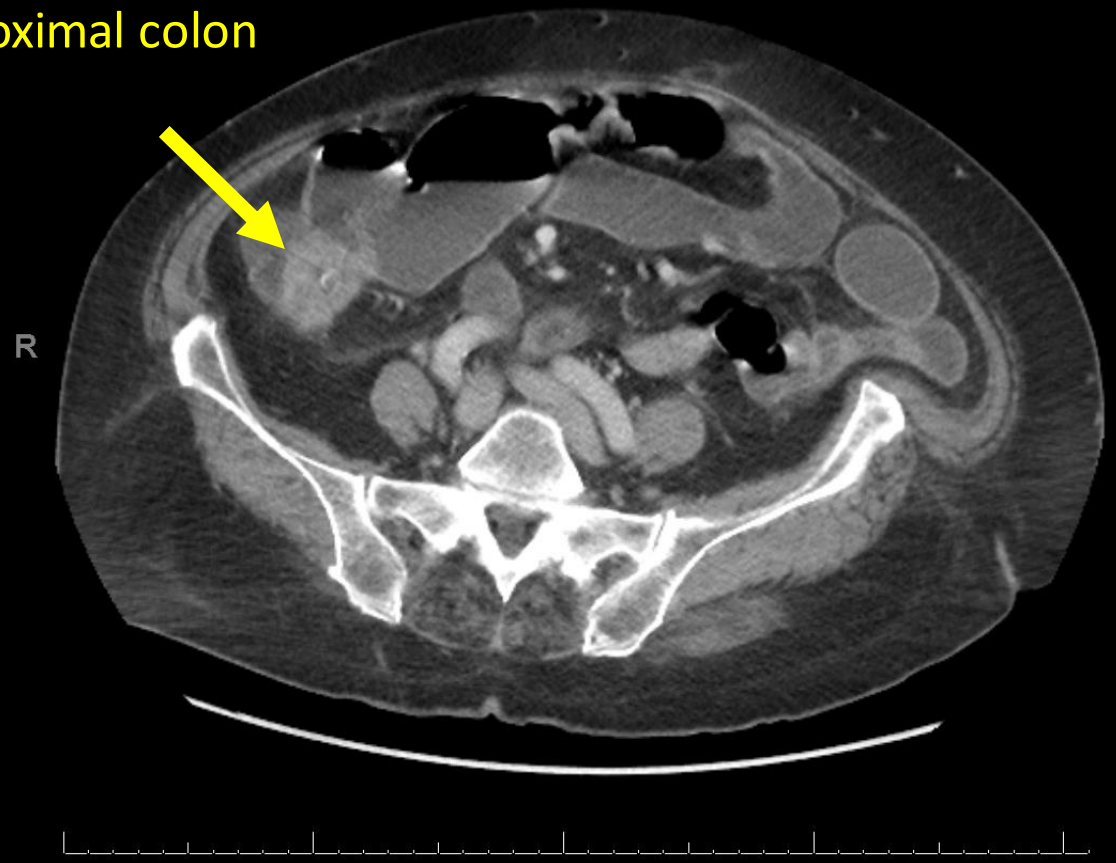
Multiple radiopaque foci with central gas with positive transition point

Dilated small bowel 3.5 cm

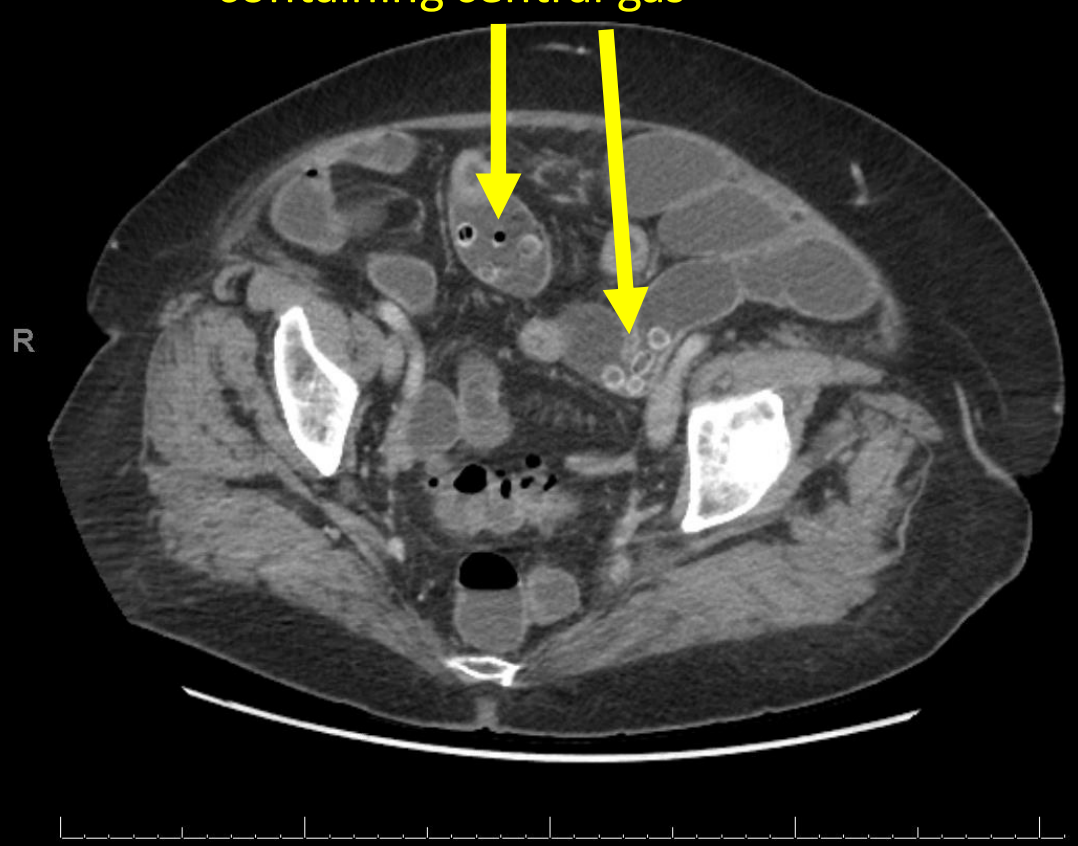


Axial Contrast-Enhanced CT

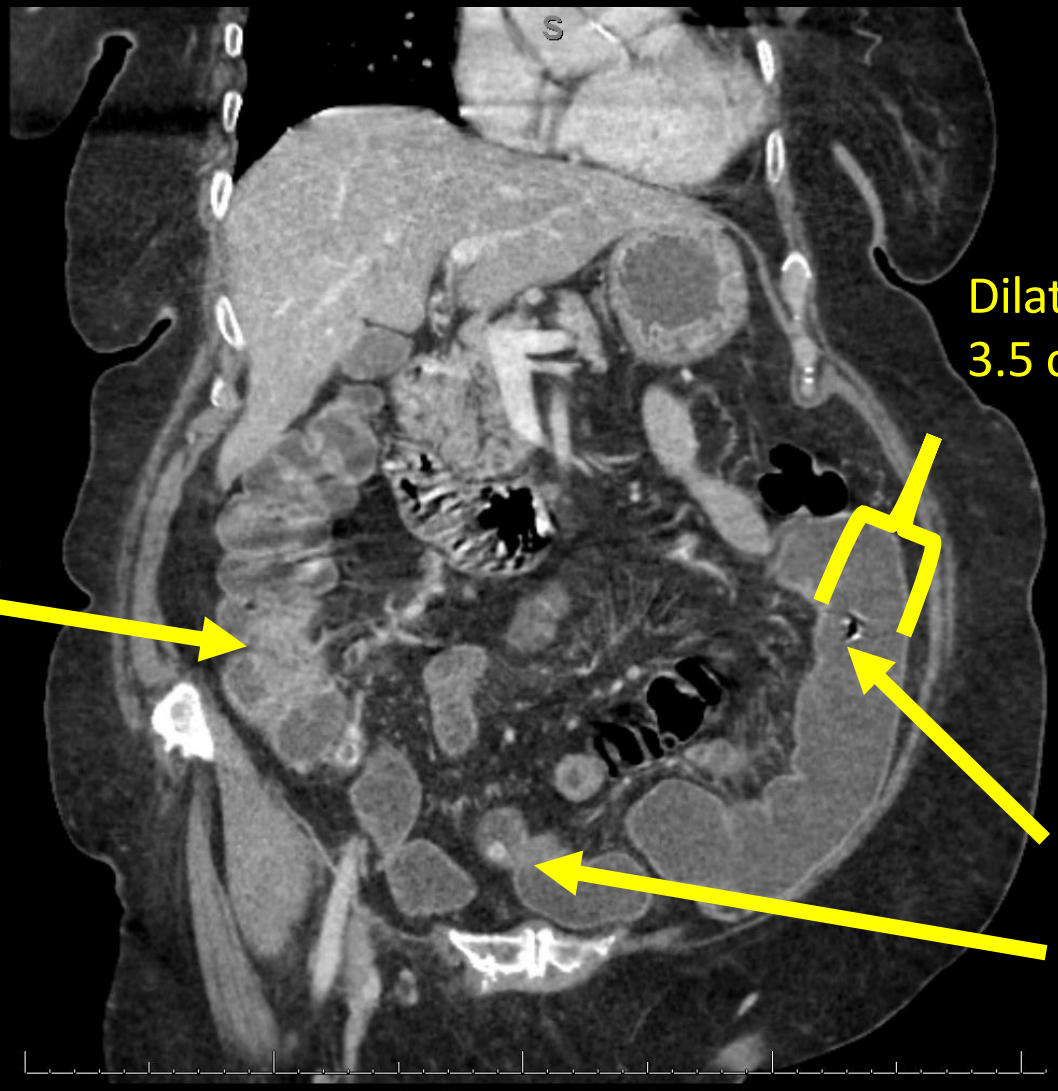
Soft tissue attenuation engulfing radiopaque foci in proximal colon



Additional radiopaque foci, some containing central gas



Coronal Contrast-Enhanced CT



Soft tissue attenuation engulfing radiopaque foci in proximal colon

Dilated small bowel 3.5 cm

More radiopaque foci with some containing central gas

DDX

- Seed phytobezoar
- Foreign body ingestion
- Colon Carcinoma
- Gallstone ileus

Gross Path

Gross specimen: resected ascending colon, ileum, omentum, and extracted cherry/olive bezoars.

Pathology Dx: Cecal Adenocarcinoma, moderately differentiated, invading 4 cm through muscularis propria. Metastatic carcinoma involving 1 of 25 lymph nodes (4 mm focus).

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Final Dx:

Gastrointestinal seed bezoars and cecal adenocarcinoma causing partial small bowel obstruction

Case Discussion

Pathophysiology: Bezoars are retained aggregates of indigestible material that accumulate in the gastrointestinal tract. There are four types of bezoars: phytobezoar (fruit and vegetable), pharmacobezoar (medications), trichobezoar (hair), and lactobezoar (milk). Although obstruction is rare, majority occurs at the rectum. Though atypical, this case demonstrated seed phytobezoars trapped near the ileocecal valve due to an obstructing cecal neoplasm.

Epidemiology: The composition of phytobezoars are generally specific to various geographic regions. Majority of cases are from Eastern Mediterranean Basin.

Case Discussion

Imaging characteristics: Phytobezoars may mimic gallstones due to a process called scarification which is a mechanical, thermal, and chemical process that encourage germination by making the seed coat more permeable to water and GASES

Medical management: endoscopic removal is treatment of choice if obstruction occurs. Laparotomy or laparoscopic removal can be performed if endoscopic removal is unsuccessful. There have been cases of acute abdomen secondary to phytobezoars

References:

EITAN, A., BICKEL, A. & KATZ, I. M (2006) FECAL IMPACTION IN ADULTS: REPORTOF 30 CASES OF SEED BEZOARS IN THE RECTUM. DISEASE OF THE COLON AND RECTUM 49(11):1768-1771 (17036204)

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