# AMSER Case of the Month: December 2018

46 year old female with abdominal pain, nausea, and vomiting. Diagnosed with diverticulitis 6 months prior

Brienne Donovan, MS IV
Lewis Katz School of Medicine at Temple University
Dr. Matthew Hartman
Medical Student Director, Allegheny Health Network

## Pertinent Labs

- Hgb: 10.1
- Hct 32.1
- WBC: 5.41
- Lactate: 1.2
- CA 19-9: 263 U/mL (NL < 55)
- CEA: 10.9 ng/mL (NL 1-3)

## Physical Exam

- Left sided abdominal pain with guarding

# What Imaging Should We Order?

# Select the applicable ACR Appropriateness Criteria

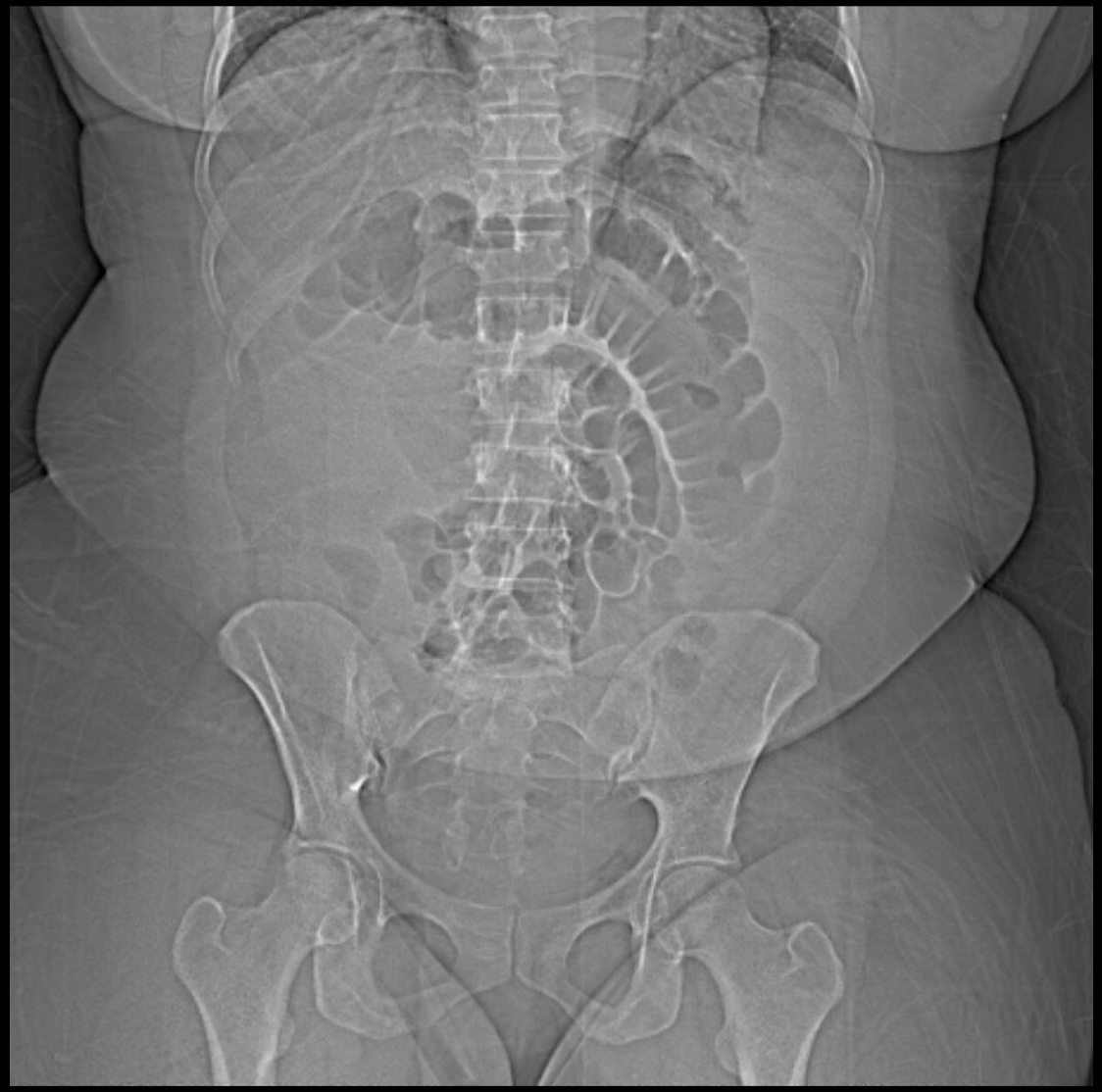
**Clinical Condition:** **Left Lower Quadrant Pain — Suspected Diverticulitis**

**Variant 1:** **Typical clinical presentation for diverticulitis, suspected complications or atypical presentations.**

| Radiologic Procedure | Rating | Comments | RRL* |
|---|---|---|---|
| CT abdomen and pelvis with IV contrast | 9 | For this procedure oral and/or colonic contrast may be helpful for bowel luminal visualization. | ☢☢☢☢ |
| CT abdomen and pelvis without IV contrast | 6 | | ☢☢☢☢ |
| CT abdomen and pelvis without and with IV contrast | 5 | | ☢☢☢☢ |
| MRI abdomen and pelvis without IV contrast | 5 | | O |
| MRI abdomen and pelvis without and with IV contrast | 5 | | O |
| X-ray contrast enema | 4 | | ☢☢☢ |
| US abdomen transabdominal graded compression | 4 | | O |
| X-ray abdomen and pelvis | 4 | | ☢☢☢ |
| US pelvis transvaginal | 2 | | O |
| **Rating Scale:** 1,2,3 Usually not appropriate; 4,5,6 May be appropriate; 7,8,9 Usually appropriate | | | *Relative Radiation Level |

This imaging modality was ordered by the ER physician

# Findings (unlabeled)

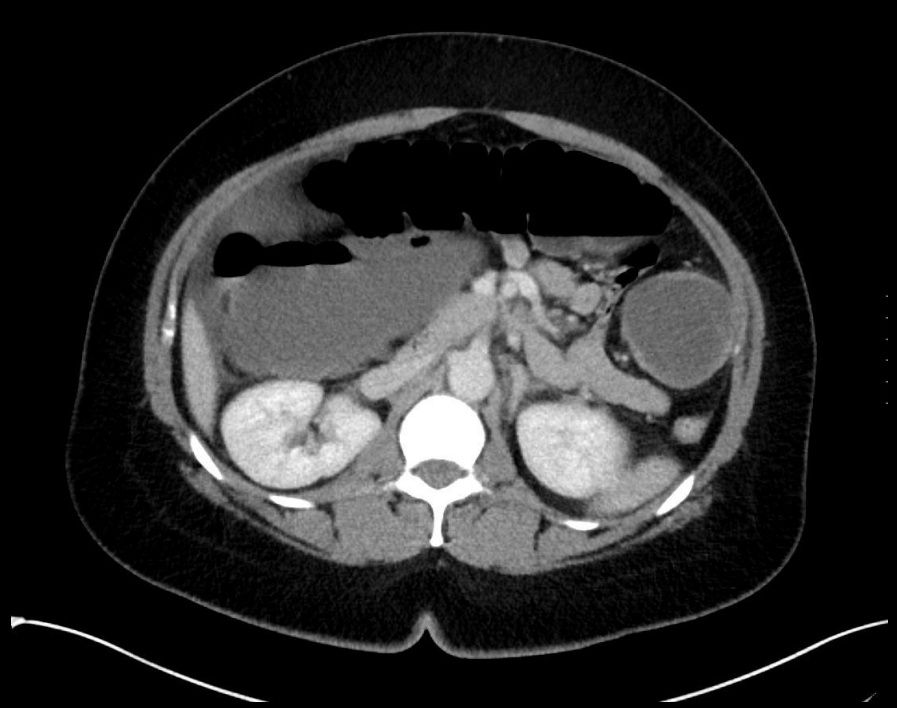


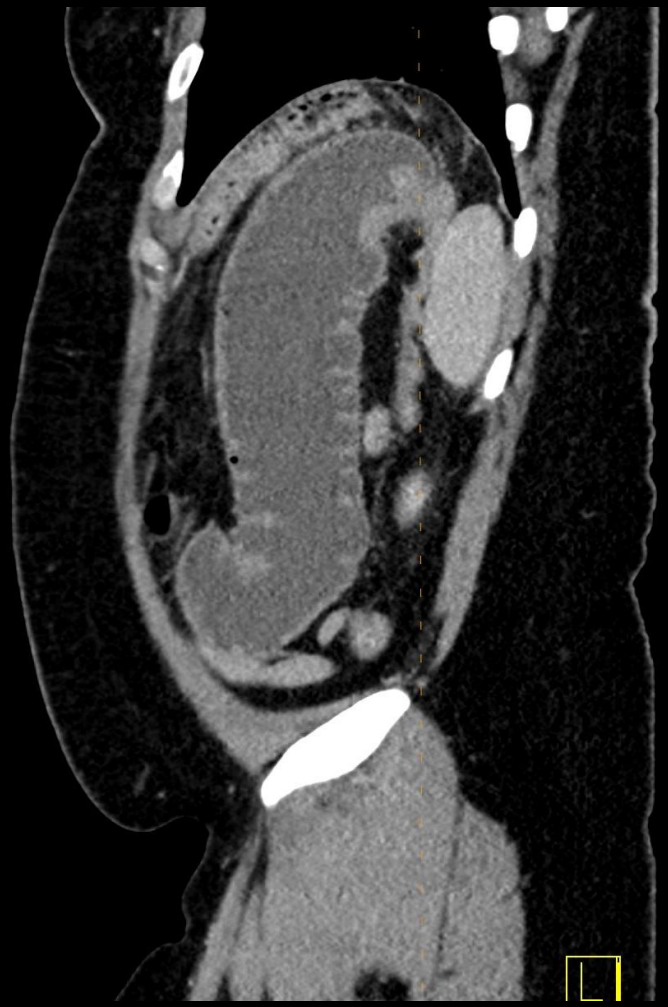
CT Scout Image

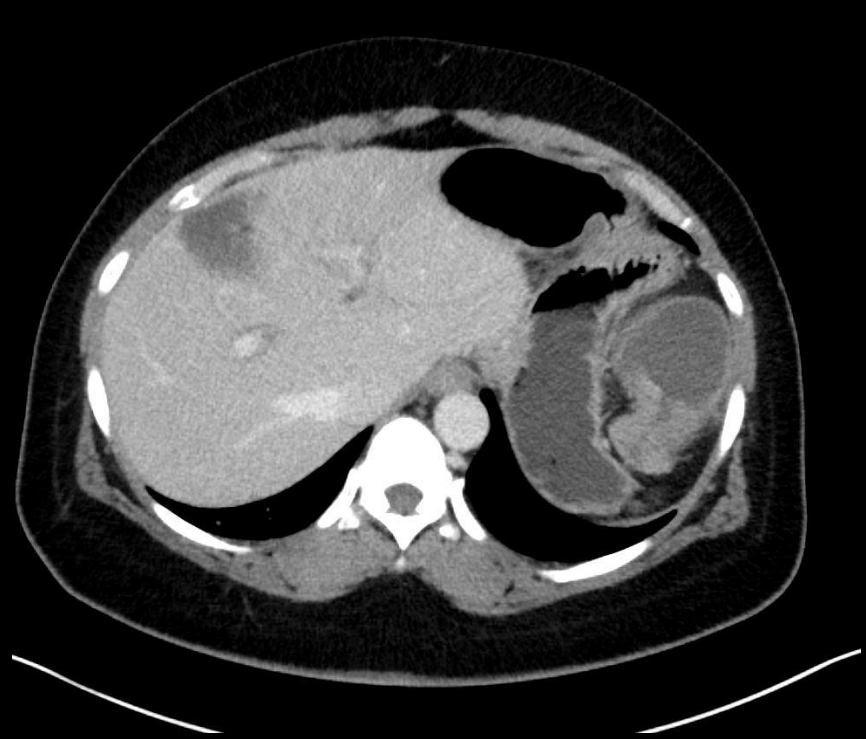
AMSER

# Findings (unlabeled)

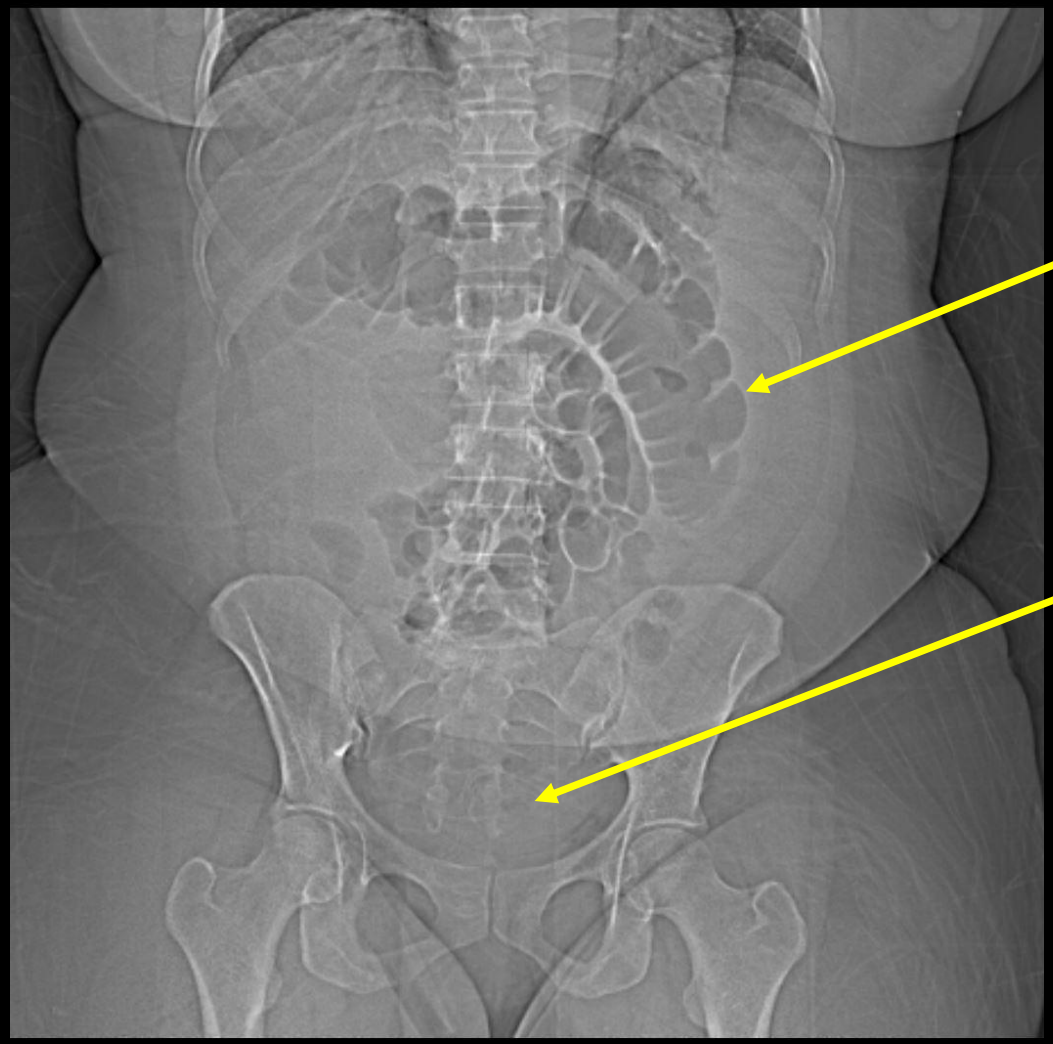
Axial and Sagittal CT







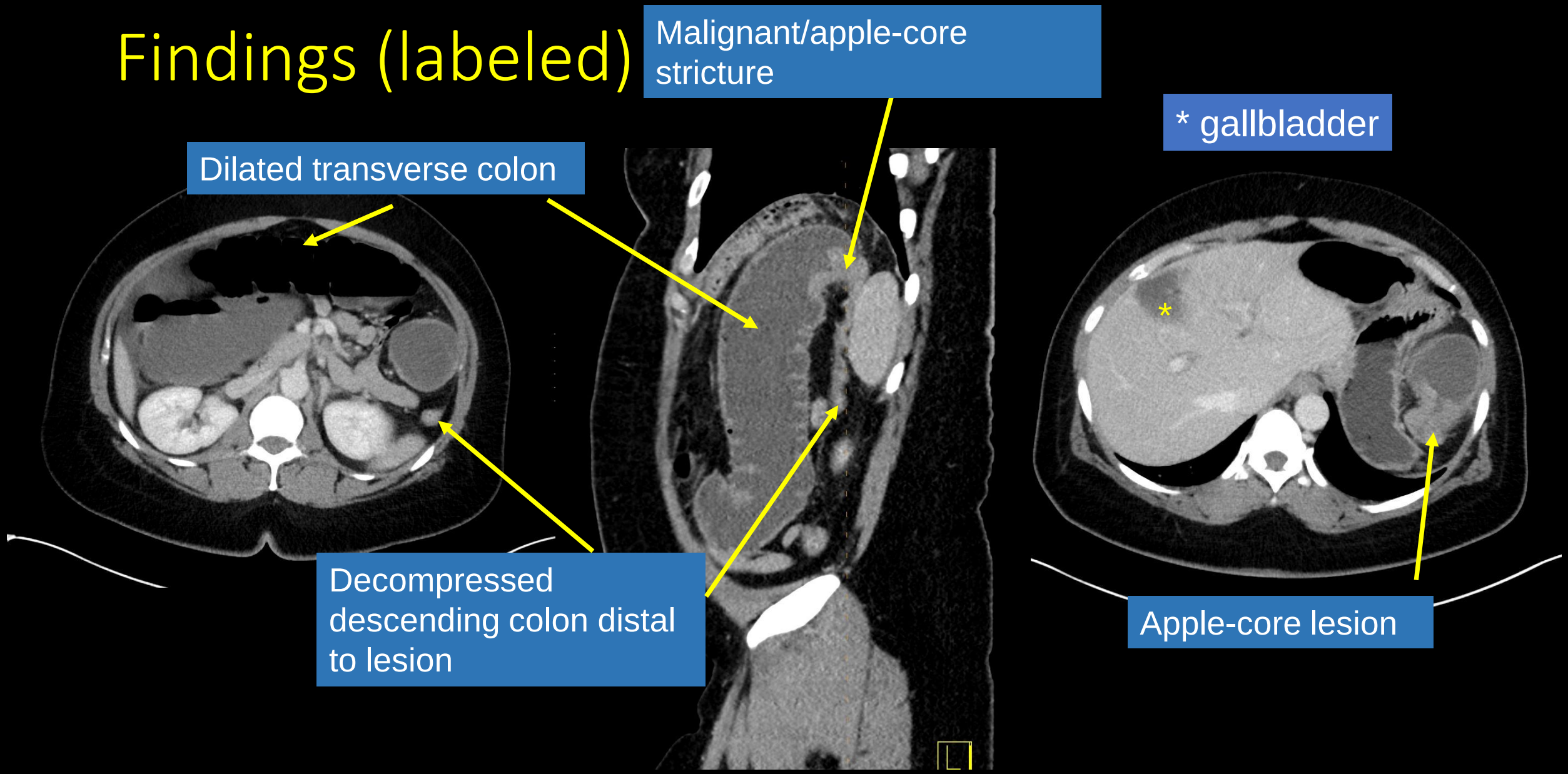
# Findings: (labled)



Dilated large bowel through the splenic flexure

Paucity of rectal gas

# Findings (labeled)



# Final Dx:

Large bowel obstruction secondary to adenocarcinoma of the descending colon

# Large Bowel Obstruction

- Mechanical Large Bowel Obstruction
  - Large bowel obstruction found to be responsible for 24% of mechanical intestinal obstructions
  - Common symptoms: change in passage of feces and flatus, abdominal distension
- Pathophysiology
  - Colonic mass compresses bowel lumen over time, allowing for less and less passage of gas and stool
  - Gas and stool build up proximal to the obstruction leading to abdominal discomfort and change in bowel habits
  - Common etiologies include neoplasm, diverticulitis, hernia and volvulus

# Diverticulitis and Colorectal Cancer

- Colonoscopy has been recommended following resolution of acute diverticulitis to rule out malignancy but many believe this practice to be outdated as diverticulitis is now diagnosed by CT leading to investigation of the necessity of colonoscopy after resolution of diverticulitis
- Patients with acute uncomplicated diverticulitis have been found to have **no** increased risk of advanced colorectal cancer on follow up colonoscopy
- Patients with complicated or persistent (defined as symptoms after 1 week of antibiotic treatment or recurrence within 2 months) diverticulitis are at an increased risk of advanced colorectal cancer on follow up colonoscopy

# References:


- Markogiannakis H, Messaris E, Dardamanis D, et al. Acute mechanical bowel obstruction: clinical presentation, etiology, management and outcome. World J Gastroenterol. 2007;13(3):432-7.
- L. Daniels, C. Unlü, T.R. De wijkerslooth, et al. Routine colonoscopy after left-sided acute uncomplicated diverticulitis: a systematic review. Gastrointest Endosc, 79 (3) (2014), pp. 378-389
- Lahat A, Yanai H, Sakhnini E, Menachem Y, Bar-Meir S. Role of colonoscopy in patients with persistent acute diverticulitis. World J Gastroenterol. 2008;14(17):2763-6.
- American College of Radiology. ACR Appropriateness Criteria®. Available at https://acsearch.acr.org/list . Accessed <10/24/2018>


AMSER