EM CASE OF THE WEEK.

BROWARD HEALTH MEDICAL CENTER
DEPARTMENT OF EMERGENCY MEDICINE

BROWARD HEALTH
Care Warriors

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Diverticulitis

A 48 year old man presents to the emergency department with left lower quadrant abdominal pain. He has had the pain for 5 days and it is dull, non-radiating, 6/10, and worsening. He has had no similar episodes. He has no medical history, takes no medications, and has no allergies. On physical exam, his blood pressure is 138/85 mm Hg, heart rate is 105 beats/min, temperature is 100.5 degrees F, and respiratory rate is 16 breaths/min. His cardiopulmonary exam is unremarkable. His abdomen is soft, non-distended, bowel sounds are present in all four quadrants, with tenderness to palpation in the left lower quadrant, no guarding, and no rigidity. A CBC is ordered and the only abnormality is a white blood cell count of 16,000/mm^3. What should be done next?

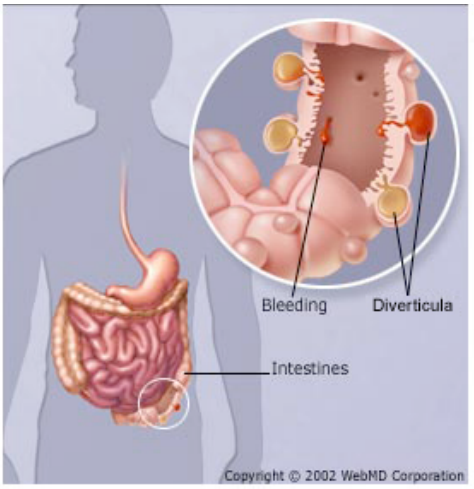
A. Give him oral antibiotics and discharge him.

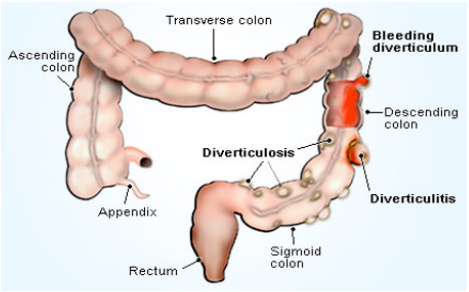
B. Order a CT scan.

C. Call the surgery team.

D. Admit him for IV antibiotics, fluids, and NPO.

E. Discharge him.





Diverticulitis

Diverticulitis is a disease of the large bowel, most commonly affecting the sigmoid colon. It is inflammation of diverticula, which are outpouchings of the mucosa and submucosa through the bowel wall. It frequently manifests as abdominal pain and mild fever. Most patients can be treated on an outpatient basis, however some require inpatient treatment and some require surgery.

EM Case of the Week is a weekly "pop quiz" for ED staff.

The goal is to educate all ED personnel by sharing common pearls and pitfalls involving the care of ED patients. We intend on providing better patient care through better education for our nurses and staff.

BROWARD HEALTH MEDICAL CENTER

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The correct answer is **B**. A CT scan should be ordered for further evaluation of this patient.

The patient currently has no diagnosis, so treating him (A), consulting another team (C), and admitting him (D) are not appropriate. Additionally, his vital signs and abdominal exam are not reassuring enough to send him home (E). The history, physical, and labs point to an abdominal etiology, which is best further examined with a CT scan.

Definitions

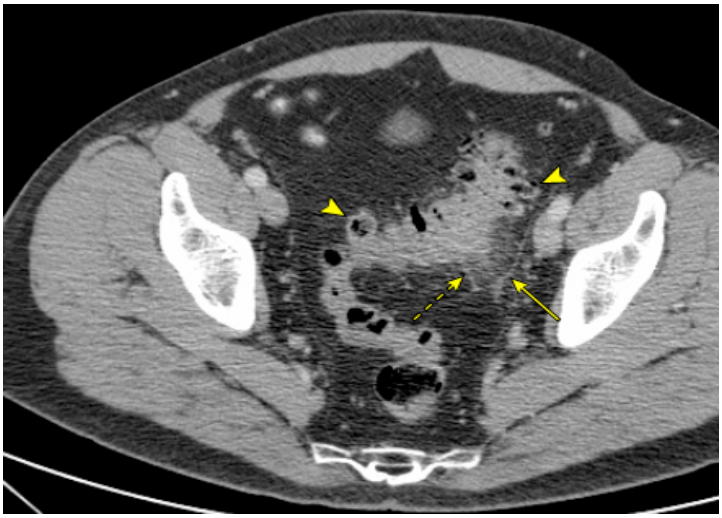
- Diverticulum: outpouching of the colonic submucosa and mucosa; plural is diverticula
- Diverticulosis: presence of diverticula
- Acute diverticulitis: inflammation of diverticula
- Simple or uncomplicated diverticulitis: diverticulitis without an acute complication
- Complicated diverticulitis: diverticulitis with an acute complication (bowel obstruction, abscess, fistula, or perforation)

Presentation

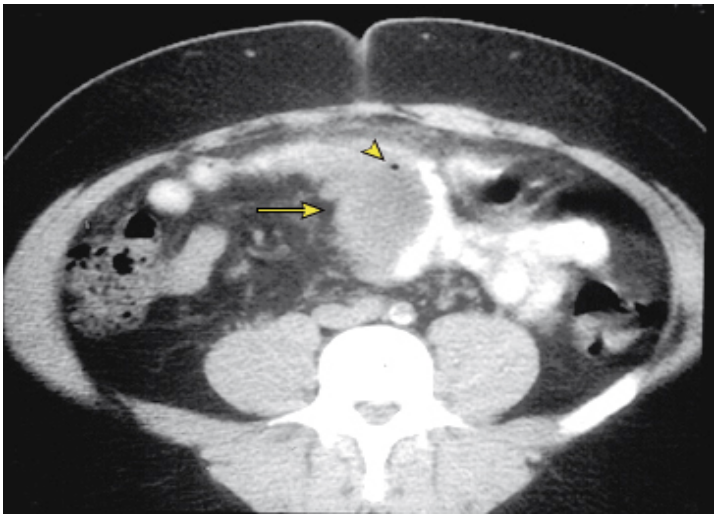
The average age of diagnosis is 63 years. Abdominal pain is the most common presenting complaint. Patient may have nausea, vomiting, constipation, diarrhea, or low grade fever. The abdominal exam may show tenderness, usually LLQ, or localized peritoneal signs. A lack of these symptoms should not preclude the diagnosis, and if suspected, a further workup is warranted.

Diagnosis

The diagnostic workup should include a CBC and abdominal CT scan. The CBC may show mild leukocytosis. A CT showing bowel wall thickening over 4mm, inflamed pericolic fat, and colonic diverticula is required to confirm the diagnosis.



Diverticulitis on CT scan from UpToDate
Mild induration of the perisigmoid fat (arrow), thickening of the sigmoid medocolon (dashed arrow), and multiple diverticula (arrowheads)



Diverticular abscess on CT scan from UpToDate
Abscess surrounding and compression the sigmoid colon (arrow) and a small amount of gas within the abscess (arrowhead)

For a list of educational lectures, grand rounds, workshops, and didactics please visit ***BrowardER.com*** and **click** on the ***"Conference"*** **link**.

All are welcome to attend!

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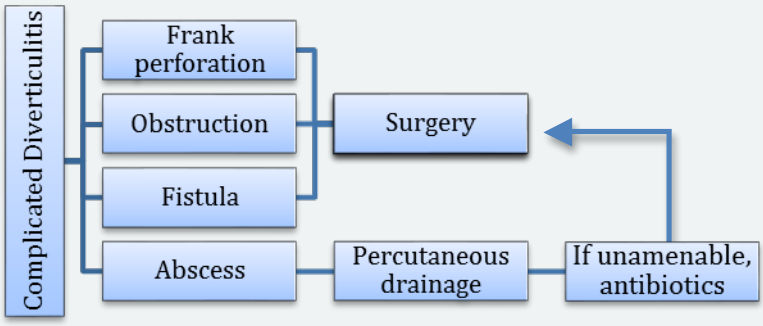
Acute management

Patients with uncomplicated diverticulitis should receive 7-10 days outpatient oral antibiotics with clinical reassessment. Patients requiring inpatient treatment are those with complicated diverticulitis or uncomplicated diverticulitis with sepsis, immunosuppression, very high fever, significant leukocytosis, severe abdominal pain, diffuse peritonitis, increased age, significant comorbidities, inability to tolerate PO, or failed outpatient treatment. Patients with complicated diverticulitis should follow the treatment plan below:



Long term management

A colonoscopy should be performed after complete resolution of symptoms (usually about 6-8 weeks). Elective surgery is recommended in patients with chronic symptoms, complicated diverticulitis, or a high risk of recurrence. Dietary modification should be encouraged to increase fiber, however there is not evidence to support avoiding nuts, seeds, or corn.

Take Home Points

- Diverticulitis is an inflammation of diverticula which are outpouchings of the large intestine.
- Complicated diverticulitis has a perforation, obstruction, fistula, or abscess.
- The diagnosis of diverticulitis is made using CT imaging.
- The treatment of diverticulitis depends on whether the patient requires inpatient treatment or can have outpatient treatment.
- Patients with complicated diverticulitis or uncomplicated diverticulitis appearing sick and likely to be readmitted should have inpatient treatment consisting of IV antibiotics, fluids, pain medication, and NPO.
- Outpatient treatment should consist of 7-10 day oral antibiotics and clinical reassessment.
- Patients should follow up with a colonoscopy, referral to surgery if indicated, and increase their dietary fiber.

This month's case was written by Carma Goldstein. Carma is a 4th year medical student from FIU HWCOM. She did her emergency medicine rotation at BHMC in February 2017. Carma plans on pursuing a career in General Surgery after graduation.

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