

A 76-year-old woman comes to the emergency department with a 2-day history of lower abdominal pain. She also has mild nausea without vomiting. Her other medical problems include arthritis and constipation. Current medications include acetaminophen and docusate. Temperature is 37.9 C (100.2 F), blood pressure is 144/92 mm Hg, and pulse is 90/min. Physical examination shows left lower quadrant tenderness on deep palpation. CT scan of the abdomen shows sigmoid diverticula and perisigmoid stranding suggestive of inflammation. The patient is started on oral ciprofloxacin and metronidazole. Three days later, she returns to the emergency department due to persistent abdominal pain, nausea, and fever. Her last bowel movement was 12 hours ago. Examination shows left lower quadrant tenderness without guarding or rebound. Repeat CT scan shows a 5-cm rim-enhancing perisigmoid fluid collection. Laboratory results are as follows:

|                   |                         |
|-------------------|-------------------------|
| Hemoglobin        | 13.5 g/dL               |
| Platelets         | 455,000/mm <sup>3</sup> |
| White blood cells | 14,500/mm <sup>3</sup>  |

Which of the following is the most appropriate next step in management of this patient?

- ☐ A. Intravenous broad-spectrum antibiotics and observation
- ☐ B. Laparotomy for colonic resection
- ☐ C. Laparotomy for drainage and debridement
- ☐ D. Oral antibiotics, bowel rest, and observation
- ☐ E. Percutaneous abscess drainage under CT guidance

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Which of the following is the most appropriate next step in management of this patient?

- ☐ A. Intravenous broad-spectrum antibiotics and observation [9%]
- ☐ B. Laparotomy for colonic resection [10%]
- ☐ C. Laparotomy for drainage and debridement [14%]
- ☐ D. Oral antibiotics, bowel rest, and observation [4%]
- ☒ E. Percutaneous abscess drainage under CT guidance [63%]

Proceed to Next Item

### Explanation:

User Id: [redacted]

This patient initially presented with acute **diverticulitis**. Diverticulitis is characterized by colonic diverticular inflammation resulting in left lower quadrant pain, fever, and leukocytosis. CT scan can show the inflammatory changes as soft-tissue stranding and



- ☐ B. Laparotomy for colonic resection [10%]
- ☐ C. Laparotomy for drainage and debridement [14%]
- ☐ D. Oral antibiotics, bowel rest, and observation [4%]
- ☒ E. Percutaneous abscess drainage under CT guidance [63%]

[Proceed to Next Item](#)**Explanation:**

User Id: [REDACTED]

This patient initially presented with acute **diverticulitis**. Diverticulitis is characterized by colonic diverticular inflammation resulting in left lower quadrant pain, fever, and leukocytosis. CT scan can show the inflammatory changes as soft-tissue stranding and colonic wall thickening. Diverticulitis can be classified as uncomplicated (75%) or complicated (25%). Uncomplicated diverticulitis in stable patients can be managed in the outpatient setting with bowel rest, oral antibiotics, and observation (**Choice D**). However, hospitalization and intravenous antibiotics are recommended for patients who are elderly, immunosuppressed, have high fever or significant leukocytosis, or have significant comorbidities.

(**Choices A, B, and C**) **Complicated diverticulitis** refers to diverticulitis associated with an **abscess** (as seen in this patient), perforation, obstruction, or fistula formation. A fluid collection <3 cm can be treated with intravenous antibiotics and observation, with surgery reserved for patients with worsening symptoms. However, a fluid collection >3 cm should have **CT-guided percutaneous drainage**. If the symptoms are not controlled by the fifth day, surgical drainage and debridement are recommended. Sigmoid resection is generally reserved for patients with fistulas, perforation with peritonitis, obstruction, or recurrent attacks of diverticulitis.

**Educational objective:**

CT-guided percutaneous drainage is recommended for complicated diverticulitis with abscess formation. Surgical drainage can be attempted if percutaneous drainage fails.

**References:**

1. [The long-term results of percutaneous drainage of diverticular abscess.](#)