

Figure 1

An 89-year-old woman who initially presented for evaluation of acute chest pain and headache developed acute abdominal pain.

An 89-year-old woman with a history of coronary artery disease, diabetes mellitus, hypertension, chronic constipation, and glaucoma presented to the ED for evaluation of chest pain and headache. Upon arrival at the ED, the patient also began to experi-

ence unrelenting abdominal pain. Abdominal examination showed mild tenderness in the right lower quadrant upon palpation. An abdominal radiograph and a computed tomography (CT) scan were ordered; representative images are presented above (**Figure 1a-1d**).

What is the diagnosis? What is the preferred management for this patient?

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■ Answer



Figure 2

The abdominal radiograph showed no evidence of bowel obstruction. There was, however, a round area of increased density in the pelvis, suggesting the presence of a soft-tissue mass (**white arrows, Figure 2**) directly adjacent to the sigmoid colon (**white asterisk, Figure 2**). Multiplanar images from the CT examination showed the soft-tissue density to be from a large ball of stool (**white arrows, Figure 3**) surrounded by air (**red arrow, Figure 3**) that communicated with the sigmoid colon (**white asterisk, Figure 3**). The ball of stool had collected in a large outpouching or diverticula of the colon.

Giant Colonic Diverticula

Giant colonic diverticula (GCD) are diverticula larger than 4 cm. This is a rare manifestation of diverticular disease of the bowel and most commonly occurs within the sigmoid colon. The majority of patients who develop GCD are older than age 60 years.¹

The clinical presentation of GCD is nonspecific but can include abdominal pain, vomiting, nausea, and fever in the acute setting.² Chronic presentations of GCD

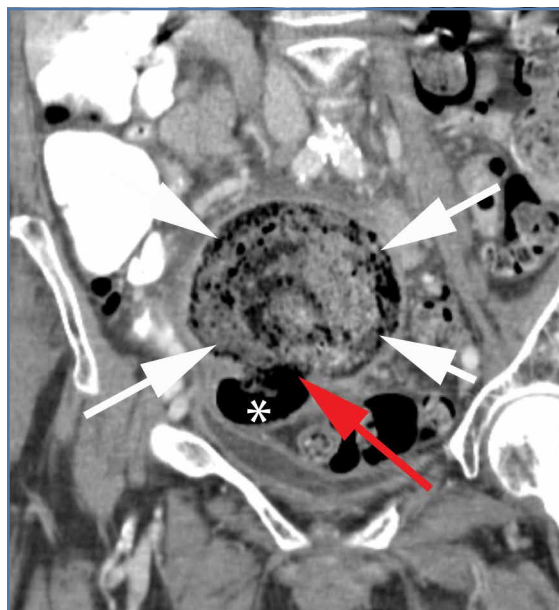


Figure 3

include intermittent abdominal pain, bloating, and constipation. In two-thirds of patients, a palpable abdominal mass is found on physical examination.³

Diagnosis

Due to the nonspecific presentation of GCD, imaging studies are typically required for diagnosis. Although radiographs may show a dilated air-filled structure in the abdomen, differentiation from a normal air-filled bowel may be difficult. Computed tomography is the imaging modality of choice based on its ability to demonstrate the presence of a smooth-walled gas-containing structure that communicates with the bowel lumen. In addition, CT has the ability to visualize the fluid and stool that are often present within the diverticulum. In cases of acute inflammation, diverticular wall thickening also may be present on CT.

Though no longer routinely used, barium enema is another option for diagnosing GCD because it can also demonstrate communication between the giant diverticula and the bowel lumen. However, barium enema

is not often used in the emergency setting due to an increased risk of perforation and peritonitis.¹

Management

Complications caused by GCD occur in 15% to 35% of cases and most commonly include perforation with associated peritonitis and abscess formation.⁴ Due to associated morbidity, the preferred treatment is surgical management—even when GCD is found incidentally in asymptomatic patients. In uncomplicated cases, surgical resection of the diverticulum and adjacent colon is performed with primary colic anastomosis. In some cases, a diverting ileostomy is created. In the presence of perforation and/or abscess, percutaneous catheter

drainage and two-stage colectomy with colostomy typically is performed.⁵

References

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