Colorectal Cancer Masked by a Diverticulitis Abscess

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Supplemental Video
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Category
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Abstract

Introduction
In the United States, colorectal cancer is currently the third most common cause of cancer and also the third most common cause of cancer-related deaths in men and women combined. Major risk factors for colorectal cancer are inflammatory bowel disease, abdominal radiation, predisposing inherited syndromes (familial adenomatous polyposis, Lynch syndrome, etc.), and African American decent.

A minor risk factor for colorectal cancer is diverticulitis. Colorectal cancer has a 1.9% one-year incidence rate in patients with diverticulitis. The American Gastroenterological Association recommends patients with acute diverticulitis to undergo colonoscopy 6-8 weeks after diverticulitis treatment to rule out underlying colorectal malignancies.

Case Presentation
A 49-year-old African American female with past medical history of diverticulitis, chronic anemia, and family history remarkable for maternal gastric adenocarcinoma at age 70 presented with chief complaint of abdominal pain.

On physical exam, the cramping pain was located in bilateral lower abdominal quadrants and did not radiate. The patient denied ever having a colonoscopy. Review of systems revealed fever, nausea, and vomiting, but she denied hematochezia. The patient was admitted at an outside institution in early January 2020 for abdominal pain. CT abdomen/pelvis completed at that time reportedly showed acute diverticulitis with an abdominal wall abscess, which was treated with IV antibiotics followed by oral antibiotics upon discharge. Follow-up CT abdomen/pelvis after discharge reportedly showed diverticulitis without abscess.

CT abdomen/pelvis completed at Westside Regional Medical Center in mid-February 2020 showed a large abscess in the lower anterior abdominal wall (Figure 1) that likely communicated with the sigmoid colon, as well as a 3.5 cm mass in the proximal sigmoid colon. Interventional Radiology drained the purulent and feculent abscess, and follow-up CT abdomen/pelvis showed a persistent mass in the proximal sigmoid colon (Figure 2). CEA and CA 19-9 tumor markers were found to be markedly elevated, suggestive of a GI malignancy. Exploratory laparotomy with left and sigmoid colectomy, loop ileostomy, and resection of lower left quadrant abdominal wall was completed. The abdominal wall abscess was also drained. Pathology revealed a 6 cm T4N1b colon adenocarcinoma. However, negative margins could not be achieved as the malignancy extended to nearby bone. The patient continued to receive IV antibiotics after the exploratory laparotomy, and will be receiving 4-6 weeks of adjuvant chemotherapy due to the high risk of residual cancer and metastatic disease.

Discussion
Diverticulitis can further be described as uncomplicated or complicated. Uncomplicated diverticulitis is defined as peri-diverticular inflammation. Complicated diverticulitis is defined as diverticulitis with diverticular abscess, perforation, or fistula.

The American Gastroenterological Association recommends patients with acute diverticulitis to undergo colonoscopy 6-8 weeks after diverticulitis treatment. One primary reason is because colorectal cancer may have been misdiagnosed as
complicated diverticulitis when the original imaging was performed, especially if the diagnosis was based on CT imaging. Diverticulitis and colorectal cancer both present with colonic wall thickening on CT. Diverticulitis can be more confidently diagnosed radiographically if inflamed diverticula, pericolic fat stranding, and preserved bowel enhancement pattern are visualized. However, in the case of complicated diverticulitis, these radiological features may be hard to visualize and cannot reliably differentiate colorectal cancer from diverticulitis. Thus, in order to rule out misdiagnosed colorectal cancer in complicated diverticulitis patients, colonoscopies have been recommended.

Conclusion
Performing a colonoscopy after diverticulitis healing to rule out colorectal cancer is recommended in this patient population. While there is not a strong causal association between diverticulitis and colorectal cancer, recommending diverticulitis patients to get a colonoscopy 6-8 weeks following treatment is paramount, especially if the patient has not received a prior colonoscopy within a year, are close to screening age, or has a positive family history of colorectal cancer. These recommendations would help to catch colorectal cancer early and can improve treatment outcomes before the cancer metastasizes.

Learning Objectives
Discuss the importance of performing a follow-up colonoscopy in patients with recent diverticulitis.
Describe the similarities and differences between diverticulitis and colorectal cancer based on imaging.
Identify additional risk factors that would favor performing colonoscopy in diverticulitis patients.
Tables and/or Figures

Figure 1. CT showing abdominal abscess that perforated into proximal sigmoid colon (blue circle)

Figure 2. CT showing proximal sigmoid mass post abdominal abscess drainage (red circle)