Background Information

Diverticulosis is one of the most common gastrointestinal abnormalities found incidentally throughout the world. Most diverticula in the GI tract actually involve only the mucosa and submucosa herniating through weaknesses in the muscular layer. Diverticulosis has been associated with low-fiber diets and constipation leading to increased intraluminal pressure in the colon resulting in the outpouring; most commonly in the sigmoid colon. Pathogenic factors include genetic predisposition, weakening of the colonic wall, altered neuromuscular activity, environmental factors, age, and thickening of the muscle wall. Presenting symptoms can range from abdominal discomfort particularly localized in the left lower quadrant referred to as “spasm” and explained by increased bowel contractions surrounding a diverticulum, to gastrointestinal bleeding and hema-tochezia. Since most diverticula are asymptomatic, they are usually diagnosed during screening colonoscopy. In symptomatic cases, CT scans are better suited to diagnose diverticular disease or complications such as perforation, an abscess, phlegmon or frank peritonitis. Those cases should be treated with IV antibiotics and bowel rest. Surgical repair is sometimes required, particularly for recurrent attacks.

We report an unusual case diverticulosis with a contained phlegmon mimicking colon cancer clinically.

Presentation

A previously healthy 64 year old male with a past medical history of hypertension and gastroesophageal reflux disease presented with intermittent nausea, vomiting, and increasing constipation with non-bloody, non-tarry diarrhea occurring approximately every 10 days in the setting of increasing abdominal girth. He also documented a 20 pound weight loss in the past 4 months and abdominal pain as his abdominal girth expanded. He denied fever, chills, or shortness of breath. He had neither personal nor family history of colorectal cancer.

The patient’s abdomen was grossly distended, without bowel sounds, and no blood was present in the rectal vault. A CT scan showed a large recto-sigmoid mass with stranding of the perirectal fat planes, which strongly suggested transmural colorectal cancer. This patient had evidence of a high grade large bowel obstruction with massive dilated colon secondary to the recto-sigmoid mass. There was no abdominal lymphadenopathy. Theliver was normal in size with no evidence of lesions.

A sigmoidoscopy demonstrated an infiltrative partially obstructing large mass protruding into the lumen of the distal sigmoid colon approximately 20 cm from the anus. The mass was circumferential and constricting the lumen. Mucosa was intact without ulceration or bleeding. The mass measured 17 cm in length, and 10 cm in diameter. With gentle pressure the colonoscope could be maneuvered past the mass. A 10 cm x 2.5 cm stent was then successfully inserted in order to maintain patency of the bowel lumen. Endoscopic biopsies were negative for colon cancer, but showed marked inflammatory changes. The serological marker for colon cancer carcinoembryonic antigen (CEA) was not elevated.

When hope that the stent would effectively permit passage of gas and stool to relieve the abdominal distention accompanying discomfort remained unfulfilled over the next week, surgery was performed to prevent any further bowel distention, reduce risk of perforation, and establish the pathology of the mass lesion.

An exploratory laparotomy and Hartmann’s procedure with end colostomy were completed. The entirety of the obstructing mass was excised. Pathology identified large groups of reactive mesothelial cells, multiple lymphocytes, neutrophils, and giant cells, but no signs of malignancy or dysplasia. Final diagnosis was a benign infiltrating colonic diverticular inflammatory mass resulting from a contained perforation.

Relevant past history subsequently obtained indicated that some months prior to the current presentation, the patient had experienced an episode of lower abdominal pain with accompanying fever that he attributed to a bout of “gastroenteritis”, which in retrospect was an attack of diverticulitis with walling off of the developing abscess. An inflammatory mass subsequently evolved to encompass and enure the sigmoid colon and constrict the lumen, manifested by increasing distention of his abdomen with decreased passing of gas and stool. He did not seek medical attention until it became unbearable.

Postoperatively, the patient has continued to follow-up with gastroenterology/surgery and is doing well after colostomy. He has regained weight, and is fully functional. As he approaches six months

<p>| Table 1: Lab Values on Admission |</p>
<table>
<thead>
<tr>
<th>Lab</th>
<th>Value</th>
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<tbody>
<tr>
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<td>AST/ALT/ALP</td>
<td>15/17/74</td>
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<td>CEA</td>
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</tbody>
</table>

Continued on page 6
A Diverticular Mass Causing Colonic Obstruction
Mimicking the Presentation of Colon Cancer
(Continued)

Figure 1: Colonoscopy Results

Legend:
A: Diagram of the colon
B: Endoscopic view of the sigmoid colon mass demonstrating a circumferential lesion with near complete obstruction of the lumen with no ulceration, polyloid irregularities or mucosal bleeding
D: After stent was endoscopically placed adequate lumen for passage of some stool and gas can now be appreciated

since the initial surgery, a pre-operative colonoscopy is planned to clear the remaining colon of any pathology prior to surgery to take down the colostomy and reconnect the intestine to the distal sigmoid colon.

Discussion
In this case report, a 64 year old otherwise healthy male presented with increasing abdominal girth, constipation, and weight loss. The occult manner in which this diverticular mass developed and eventually evolved into a near complete obstruction of the colon with weight loss prompted an immediate work-up with expectation of diagnosing colon cancer. While the facts that the patient was CEA negative, he was not anemic, no blood per rectum, and had a normal colonoscopy in the preceding 10 years were not suggestive of cancer; the weight loss, patient’s age, obstructive nature, and size of the lesion suggested colon cancer. Take home teaching points in this case report emphasize that the nature of the disease process is important to distinguish colon cancer from occult diverticular disease, because this case illustrated that perforated diverticula can form a large inflammatory mass mimicking colon cancer.

References

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