



Ischemic colitis masquerading as colonic tumor: Case report with review of literature

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Abstract

Ischemic colitis can mimic a carcinoma on computed tomographic (CT) imaging or endoscopic examination. A coexisting colonic carcinoma or another potentially obstructing lesion has also been described in 20% of the cases of ischemic colitis. CT scan can differentiate it from colon cancer in 75% of cases. However, colonoscopy is the preferred method for diagnosing ischemic colitis as it allows for direct visualization with tissue sampling. Varied presentations of ischemic colitis have been described as an ulcerated or submucosal mass or as a narrowed segment of colon with ulcerated mucosa on colonoscopy. Awareness and early recognition of such varied presentations of a common condition is necessary to differentiate from a colonic carcinoma, and to avoid unnecessary surgery and related complications.

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Key words: Colon pathology; Colitis; Ischemic pathology; Colonic neoplasms/diagnosis; Differential Diagnosis; Biopsy; X-Ray computed tomography

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INTRODUCTION

Ischemic colitis is the most common cause of ischemic injury in the colon with an estimated incidence of 4.5-44 cases per 100 000 person-years^[1]. This commonly presents with moderately severe, crampy abdominal pain, mostly localized to the left lower quadrant, sometimes associated with diarrhea or rectal bleeding^[2]. Rarely, ischemic colitis can mimic a carcinoma on computed tomographic (CT) imaging or endoscopic examination. This case report highlights this rare presentation along with a practical approach to the management based on a review of literature.

CASE REPORT

A 92 year old man presented to the hospital with complaints of fatigue, past medical history significant for hypertension and congestive heart failure. Physical examination revealed an irregularly irregular pulse with electrocardiogram demonstrating atrial fibrillation with rapid ventricular rate. He was started on a therapeutic dosage of low molecular weight heparin, however had five episodes of bright red blood per rectum the next day requiring transfusion of 2 units of blood with mild abdominal pain. He had no prior history of weight loss, loss of appetite, change in bowel habits or gastrointestinal bleeding. Physical exam at this time revealed stable vital signs with an unremarkable abdominal exam and bright red blood

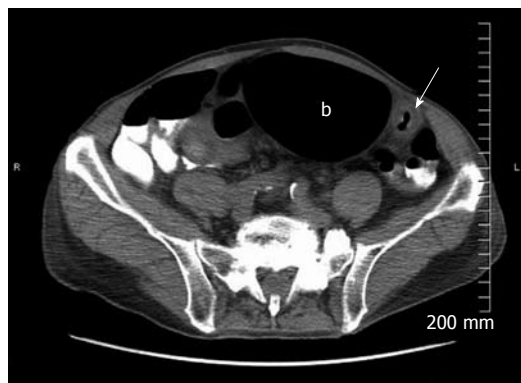


Figure 1 Computed tomography of the abdomen demonstrating circumferential thickening of a long segment of the distal colon (marked with white arrow) with a proximal dilated segment (marked with “b” inside the lumen of the dilated segment).



Figure 2 Colonoscopy image demonstrating friable mass occupying up to half the circumference of the splenic flexure.

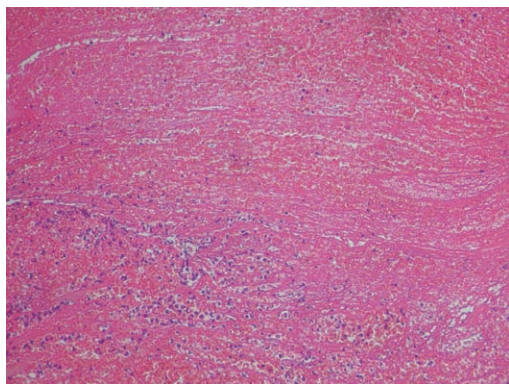


Figure 3 Hematoxylin and eosin high power microscopic image demonstrating acute colitis with marked fibrinopurulent exudates.

on the gloved finger on rectal examination. Laboratory tests revealed a normal white blood count and hemoglobin of 10.3 mg/dL with a normocytic normochromic peripheral blood smear. CT revealed circumferential thickening of a long segment of the distal colon with a proximal dilated segment suggestive of a stricture or a malignancy (Figure 1). He then underwent a colonoscopy which demonstrated a friable mass occupying up to

the circumference of the splenic flexure (Figure 2). Biopsy of the mass demonstrated acute colitis with marked fibrinopurulent exudates, consistent with acute ischemic colitis (Figure 3). He was treated with a regimen of bowel rest, intravenous fluids, and antibiotics, recovered completely and was discharged home.

DISCUSSION

Acute onset bleeding after anticoagulation originates from the colon in 25% of cases, commonly from polyps, diverticular disease, vascular malformations or cancer^[3]. Rectal bleeding as a presentation of ischemic colitis is usually mild, not requiring transfusion^[4]. CT scan is usually not performed for the diagnosis of ischemic colitis and can differentiate it from colon cancer in 75% of cases based on length and thickness of the thickened colonic segment, enhancement of the segment and the presence of target or double halo sign^[5]. Colonoscopy or sigmoidoscopy is the preferred method for diagnosing ischemic colitis as it allows for direct visualization with tissue sampling^[6]. However colonoscopy is preferred over sigmoidoscopy as lesions are found proximal to the sigmoid colon in 50% of cases except in the setting of aortic surgery where it is limited to the distal colon. Biopsies demonstrate vascular congestion, submucosal hemorrhage, interstitial edema, inflammatory infiltration, loss of superficial cells, and intravascular platelet thrombi. Acute ischemia is suggested by hyalinization of the lamina propria, full-thickness mucosal necrosis, the presence of atrophic microcrypts, and hemorrhage in the lamina propria whereas hemosiderin deposition, along with transmural fibrosis and mucosal atrophy, is a pathognomonic of a chronic phase of the ischemic colitis^[7]. Colonoscopy demonstrates edematous, hemorrhagic, hyperemic or necrotic colonic mucosa in the acute phase, and strictures, or loss of haustrations in the chronic phase.

In 20% of the cases of ischemic colitis, a coexisting colonic carcinoma or another potentially obstructing lesion has been described^[8]. In these cases the lesion is distal in location and separated from it by a variable segment of normal colon. The mechanism may involve an increased intra-colonic pressure proximal to the lesion with decreased colonic blood flow. Previous case reports^[9-13] have described varied presentations of ischemic colitis as an ulcerated or submucosal mass or as a narrowed segment of colon with ulcerated mucosa on colonoscopy. The objective of our case report is to create awareness and early recognition of such varied presentations of a common condition in order to differentiate from a colonic carcinoma, avoid unnecessary surgery and related complications.

Treatment of mild cases involves bowel rest and parenteral fluids with antibiotics to cover usual bowel flora. Ischemic colitis involving the right side of the colon occurs in 23% of cases and these patients more often need surgical intervention^[14]. Complications include bowel gangrene, ulcerations, strictures, and fulminant colitis. It has been suggested that in the rare scenario where colo-

noscopy also suggests a neoplasm with biopsy specimens negative for a tumor, repeating imaging and colonoscopy studies 7-10 d later may identify the evolving nature of the acute ischemic lesion and obviate the need for surgery.

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