

Submucosal Fecalith Presenting as a Submucosal Cecal Mass

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ABSTRACT

A wide variety of benign and malignant submucosal lesions may arise from the wall of the large intestine. They can originate in the submucosa or in the muscular propia; furthermore, they can be caused by compression of extrinsic structures.^{1,2} We report a case of a submucosal mass identified as a fecalith protruding into the cecum.

INTRODUCTION

Cecal fecaliths are common in the cecum but are highly unusual to find as a cecal submucosal lesion.^{1,2} We report a case of a submucosal mass identified as a fecalith protruding into the cecum. This case report is suggestive of the need to consider a cecal fecalith in the differential diagnosis of cecal submucosal lesions.

CASE REPORT

A 34-year-old man was admitted due to 8 hours of lower gastrointestinal bleeding. He had no other significant symptoms. His medical history included an appendectomy 3 years earlier and no family history of gastrointestinal malignancies. His vital signs were normal. Digital rectal examination revealed hematochezia.

Laboratory studies disclosed a hemoglobin level of 7.7 g/dL, so the patient was transfused 2 units of red blood cells. Diagnostic colonoscopy was performed. Colonoscopy findings included a submucosal cecal mass of 4 × 3 cm, with a central erosion near its base (Figure 1). The mass had no signs of active bleeding and had a firm consistency to palpation. Biopsies were taken. Abdominal computed tomography showed a 4 × 3-cm cecal mass with apparent irregular contrast uptake (Figure 2). Endoscopic biopsies were taken, which resulted nondiagnostic; however, because malignancy was still suspected, surgery was pursued.

After surgical evaluation, owing to a high suspicion of malignancy, the patient underwent right hemicolectomy. Surgical findings included a cecal tumor of 4 × 3 cm without palpable lymphadenopathies. The patient had an uncomplicated recovery after surgery. Macroscopic view of the resected specimen showed a fecalith protruding into the cecum underneath the mucosa; this fecalith resembled a mass. There were no evidence of fibrosis or signs of malignancy (Figure 3). The patient was discharged 1 week after surgery without postoperative complications.

DISCUSSION

A wide variety of lesions can be found in the cecum, and in some cases, distinguishing between benignancy and malignancy is not easy. Many of these cases require surgical exploration to establish the diagnosis and to provide appropriate treatment.¹

At luminal evaluation of the large intestine, any mass like protrusion that is covered by normal mucosa, whether the underlying process is intramural or extramural in origin, may be reported as a submucosal lesion. The full characterization of submucosal lesions

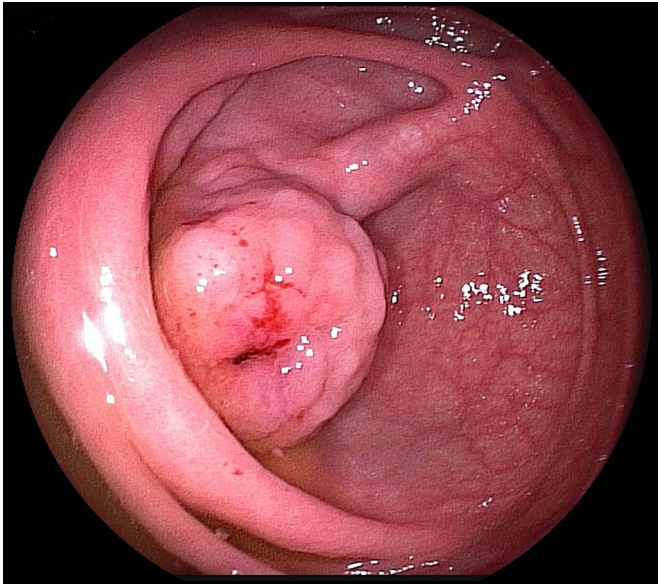


Figure 1. Colonoscopy showing a submucosal mass of 4 cm in the cecum.

may be difficult with optical colonoscopy alone, and endoscopic biopsy is often nondiagnostic. Many of these cecal submucosal lesions are usually asymptomatic but can manifest as gastrointestinal bleeding (eg, large ulcerated carcinoid tumor, lymphoma, and hemangioma). Colonoscopy is the gold standard for investigation and diagnosis of these lesions.¹

There are previous reports of cecal fecaliths (many of them causing acute appendicitis or even acute typhlitis) and cases of fecaliths simulating a submucosal colonic lesion that were eventually diagnosed as fecaliths inside the lumen of the appendix.^{1,3-5} Ruan et al reported a submucosal fecalith, not related to the cecal appendix, which lacked a mucosal ulcer in the wall of the cecum.⁶

This patient has a medical history of appendectomy 3 years earlier. On initial examination of the endoscopic pictures, the central orifice of the lesion appeared to be the appendiceal orifice, giving the impression that this lesion was an appendicular tumor, but the macroscopic view of the resected specimen revealed that this orifice was a fissure of the mucosa. The actual appendiceal orifice was near this lesion, unaffected. The mechanism of formation of this submucosal fecalith is yet to be determined, being the constant accumulation of feces through a fissure in the mucosa a possible cause. The multiple calcifications in the fecalith may have caused that “irregular contrast uptake image” described in the computed tomography. This fecalith did not show the typical radiological features mentioned in the literature, such as calcified surface with concentric lamellae while the center is mottled with internal air.^{7,8} These types of cases highlight the importance of considering a fecalith for the differential diagnosis of a cecal submucosal lesion and give worth to the proper preoperative investigations of uncommon colonic findings.

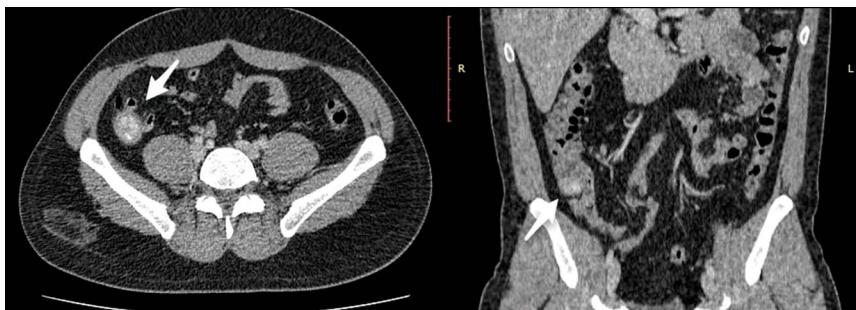


Figure 2. Abdominal computed tomography image showing a 4 × 3-cm cecal mass with apparent irregular contrast uptake (arrow).

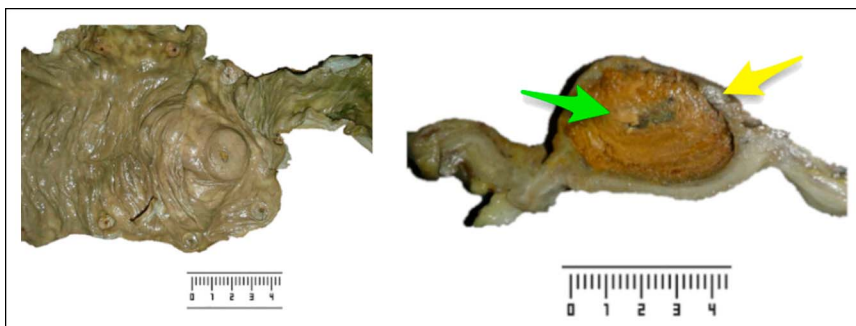


Figure 3. A macroscopic view of the resected specimen showing a fecalith (green arrow) protruding into the cecum underneath the mucosa (yellow arrow).

DISCLOSURES

Author contributions: All authors contributed equally to this manuscript. HE Benites Goñi is the article guarantor.

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Informed consent was obtained for this case report.

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