Unusual Presentation of Crohn’s Disease

Distal transverse colon mass

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Abstract

Crohn’s disease is an inflammatory chronic disease affecting the gastrointestinal tract, mostly the colon and terminal ileum. The most frequent presentation is a young patient presented to a tertiary care center in Riyadh, Saudi Arabia in 2021 with chronic diarrhea, rectal bleeding, and abdominal pain. It is unusual for patients with Crohn’s disease to develop a benign large colon mass. In this case report, a female patient presented with chronic abdominal pain. The computed tomography findings showed a transverse colon mass invading the stomach. The biopsy report indicated reactive colonic mucosa with focal inflammatory exudate. She underwent a laparoscopic extended left hemicolectomy with en-bloc resection of the greater curvature of the stomach and primary anastomosis.

Keywords: IBD, Crohn's disease, colon mass, transverse colon, abdominal pain.
Introduction

Crohn’s disease is an inflammatory chronic disease which affects the gastrointestinal tract from the mouth to the anus, but it usually affects the colon and terminal ileum. The onset usually occurs in the second to the fourth decade of life. The prevalence and incidence are higher in developed countries and urban areas. There is a high risk for patients with Crohn’s disease to develop cancer, thrombotic events, infections, and osteoporosis. However, it is unusual for to develop a benign large colon mass as the first manifestation of this disease. In this article, we report a unique case of a 42-year-old female patient with a distal transverse colon mass manifesting as abdominal pain, without a prior diagnosis of inflammatory bowel disease (IBD).

Case Report

A 42-year-old female presented at the Emergency Room (ER) with localized abdominal pain for 2 months. The pain was colicky in nature, sporadic, and responding to analgesia in the initial episodes. She had no change in bowel habits including constipation, diarrhea or melena, and was passing stool and flatus as usual. The patient reported that she lost 10 kg over the last months. She had no chronic diseases or symptoms suggestive of IBD and no family history of Crohn's disease. However, her father died of colon cancer at the age of 80 years.

Her physical examination was unremarkable. Her laboratory investigations were within normal limits. For example, White Blood Cell 7.28 X10^9/L; Hemoglobin 11 gm/L; CA 19-9 14 kU/L (UmL) (Normal Range <39 U/ml); CEA <1.7 mg/mL (Normal Range < 3.4 mg/ml ); CA125 19 kU/L (UmL) (Normal Range < 35 kU/L ); CA15-3 16.8 kU/L (UmL) (Normal Range < 25 U/ml ); CRP 8 mg/L.

An abdominal CT scan revealed a distal transverse colon soft tissue mass extending along the gastro colic ligament, invading the great curvature of the stomach with no bowel obstruction or perforation. In addition, there were multiple local regional lymphadenopathy and peritoneal nodules (Figure 1). After reviewing the abdominal CT, and because the mass originated from the descending colon, we elected to proceed with a colonoscopy only to obtain a biopsy of the mass. During the colonoscopy, circumferential wall thickening, and an obstructing left colonic mass, 65 cm away from the anal verge was observed (Figure 2). Several biopsies were taken, which
indicated colonic mucosa with crypt distortion, negative for granuloma, viral cytopathic effects, dysplasia, and malignancy.

The case was discussed during the Tumor Board and the committee advised a magnetic resonance imaging (MRI) of the abdomen. They also recommended repeating the colonoscopy to obtain sufficient biopsies with an upper gastrointestinal endoscopy to evaluate the stomach. The esophagogastroduodenoscopy showed a thickened fold at the gastric body with a small hiatal hernia, no visible masses were reported (Figure 2). The gastric biopsy showed moderately active chronic gastritis with regenerative changes, multiple helicobacter shaped bacilli, and was negative for intestinal metaplasia, dysplasia, and malignancy. The repeated colonoscopy indicated the same findings of the first colonoscopy and the repeated biopsy indicated reactive colonic mucosa with focal inflammatory exudate and negative for dysplasia and malignancy. The MRI showed a locally infiltrative distal transverse colon mass with lymphovascular invasion to the stomach and the presence of peritoneal nodules.

After completing the workup, the patient was discussed again at the Tumor Board and the committee updated with the recent results. The decision was to proceed with surgical resection, rather than doing additional investigations such as a lymph node biopsy, given the patient’s symptoms and the high suspicion of malignancy.

The patient underwent a laparoscopic en-bloc extended left hemicolectomy and wedge resection of the greater curvature of the stomach with a colo-colic anastomosis. With the gross examination, a mass in the distal transverse colon was adherent and attached to great curvature of the stomach and no liver lesion or peritoneal deposits were seen (Figure 3). The area of concern was thickened, and irregular compared to the rest of the bowel texture. The final pathology report of the specimen indicated a colonic mucosa with extensive ulceration and mass-like formation consistent with an exudative adhesive process, with scattered foci of non-caseating early granulomatous inflammation, suggesting an active inflammatory bowel disease and favoring Crohn’s disease over ulcerative colitis (UC) (Figure 4). A second pathologist examined the specimen and concurred the result. The patient had an uncomplicated postoperative course. She was discharged on Day 4 postoperatively, and followed-up at the clinic, referred to
Gastrointestinal Service for long term management and scheduled for a follow-up upper and lower endoscopy.

The plan is to do laboratory tests including stool calprotectin in 3 months and to repeat the upper and lower endoscopy one year after the last procedure or earlier if indicated clinically (symptomatic or high calprotectin).

Informed consent was obtained from the patient for the publication of this case report and accompanying images.

Discussion

The most frequent presentation of Crohn’s disease is a young patient with chronic diarrhea, anorexia, fatigue, rectal bleeding, abdominal pain, perianal lesion, and weight loss. More than 50% of patients will present with extraintestinal manifestation such as eyes, joints, and skin, which could appear before the gastrointestinal manifestation. Half of the patients with Crohn’s disease could develop complications which may require surgery, such as a fistula, abscess, and strictures. Several unusual presentations of Crohn’s disease have been reported in literature, including scrotal and penile swelling as well as a pyogenic abscess. These unusual presentations often delay the diagnosis and appropriate management for the patients.

Conclusion

The current case is unusual in that the patient was presented with a solid transverse colon mass, which was invading the stomach without any clinical signs or family history of inflammatory bowel disease. Although the diagnosis could not be established preoperatively, surgical resection was deemed the most appropriate approach given the high suspension of malignancy and the patient’s symptoms. This case highlights the importance of a multidisciplinary approach in such cases and the need to consider other differential diagnosis, such as inflammatory bowel disease, especially if a firm diagnosis could not be established with a thorough work up.
Authors’ Contribution
This case report was supervised and reviewed by NA, while the introduction and case report were conducted by AA. The discussion part was written and discussed by SbG and SM with the revision done by NA. The conclusion part and figures were written and collected by SB. All authors approved the final version of the manuscript.

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Figure 1: Abdomen CT scan coronal view local invasion of the colonic mass along with prominent lymph nodes

Figure 2: Colonoscopy. Circumferential colonic wall thickening.
Figure 3: Gross specimen. Distal transverse colon adherent to the greater curvature of the stomach.

Figure 4: Histology. Non-caseating granuloma showing multi nucleated giant cells and macrophages.