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CASE REPORT

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. A 42-year-old female patient presented to a tertiary care centre in Riyadh, Saudi Arabia, in 2021 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. The patient was subsequently diagnosed with Crohn's disease based on the final pathology report. The patient had an uncomplicated postoperative course and is being follow-up.

Keywords: Crohn's disease; Colonic Neoplasms; Transverse Colon; Abdominal Pain; Case Report; Saudi Arabia.

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.[1] The onset usually occurs in the second to the fourth decade of life.[2] The prevalence and incidence are higher in developed countries and urban areas.[3] There is a high risk for patients with Crohn's disease to develop cancer, thrombotic events, infections and osteoporosis.[4,5] However, it is unusual to develop a benign large colon mass as the first manifestation of this disease. This report describes a unique case of 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 of a tertiary care center in Riyadh, Saudi Arabia, in 2021 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; her white blood cell count was 7.28×10^9/L, hemoglobin was 11 g/L, carbohydrate antigen (CA)19–9 was 14 U/mL (normal range is <39 U/mL), carcinoembryonic antigen was <1.7 mg/mL (normal range is <3.4 mg/mL), CA125 was 19 kU/L (normal range is <35 kU/L), CA15–3 was 16.8 U/mL (normal range is <25 U/mL) and C-reactive protein was 8 mg/L.

An abdominal computed tomography (CT) scan revealed a distal transverse colon soft tissue mass extending along the gastrocolic 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, a colonoscopy was done 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 but 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.

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Figure 1: Abdominal computed tomography scan of the coronal view of the local invasion of the colonic mass along with prominent lymph nodes.

The repeated colonoscopy indicated the same findings as the first colonoscopy and the repeated biopsy indicated reactive colonic mucosa with focal inflammatory exudate and was 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.

Subsequently, the patient was discussed at the Tumor Board again with the updated findings. The decision was made 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. A mass in the distal transverse colon was adherent and attached to the 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

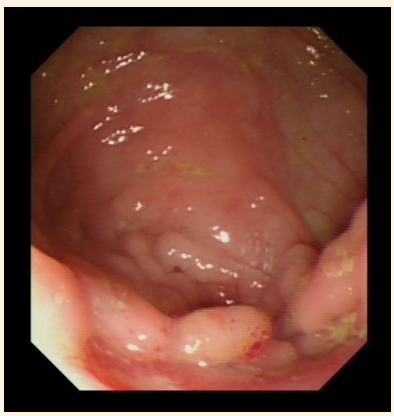

Figure 2: Colonoscopy image showing circumferential colonic wall thickening.

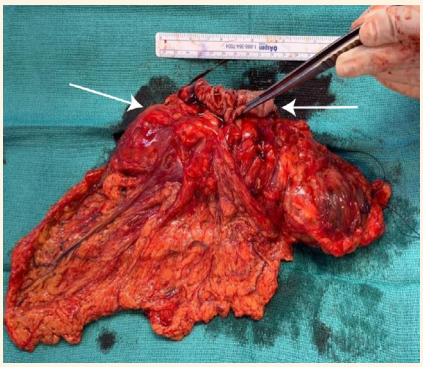

Figure 3: Intraoperative image showing a gross specimen of the distal transverse colon adherent to the greater curvature of the stomach (arrows).

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 [Figure 4]. A second pathologist examined the specimen and concurred with the previous result. The patient had an uncomplicated postoperative course. She was discharged on day 4 postoperatively and followed-up at the clinic; she was referred to the gastrointestinal service for long-term management and scheduled for a follow-up upper and lower endoscopy.

Laboratory tests, including stool calprotectin, are scheduled for 3-months postoperatively and a repeat of the upper and lower endoscopy 1 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.

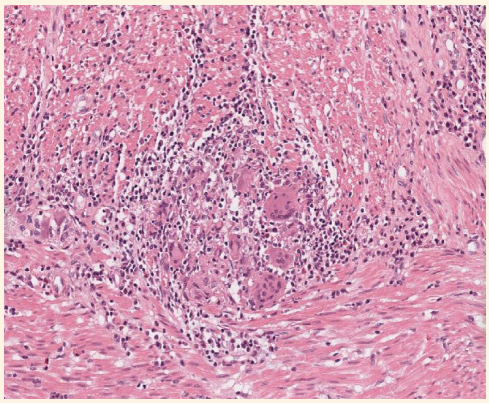

Figure 4: Hematoxylin and eosin stain at ×20 magnification showing the presence of non-caseating granuloma with multi-nucleated giant cells and macrophages.

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.[6] More than 50% of patients will present with extraintestinal manifestation such as eyes, joints and skin, which could appear before the gastrointestinal manifestation.[6] Half of the patients with Crohn's disease could develop complications which may require surgery, such as a fistula, abscess and strictures.[7] Several unusual presentations of Crohn's disease have been reported in the literature, including scrotal and penile swelling as well as a pyogenic abscess.[8–11] 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 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 written by AA. The discussion was written and discussed by SbG and SM and the revision was done by NA. The conclusion and figures were written and collected by SB. All authors approved the final version of the manuscript.

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