An Unusual Cause of Large Bowel Obstruction in a Patient With Ulcerative Colitis

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ABSTRACT

Endometriosis is a rare cause of large bowel obstruction and has been infrequently reported in patients with inflammatory bowel disease. We present an unusual case of a young woman with ulcerative colitis, who presented with a large bowel obstruction with colonic stricture and peripancreatic mass concerning for malignancy. The evaluation revealed endometriosis, and her large bowel obstruction was successfully managed with leuprolide and colonic stenting.

INTRODUCTION

Intestinal endometriosis can mimic several gastrointestinal (GI) diseases, including irritable bowel syndrome, diverticulitis, colitis, Crohn’s disease, and malignancy; it has rarely been reported in patients with inflammatory bowel disease (IBD).1,2 We report a case of large bowel obstruction and peripancreatic mass because of endometriosis in a middle-aged woman with ulcerative colitis (UC) who was successfully treated with leuprolide and colonic stenting.

CASE REPORT

A 39-year-old African American woman presented with epigastric pain associated with nausea and anorexia for 5 days and no bowel movement or flatus for 1 day. She had been diagnosed with moderately severe UC on a flexible sigmoidoscopy 9 years earlier which showed discrete ulceration in the colon and pathology showing chronic inflammation. She had been taking prednisone and Asacol. She also had a hysterectomy for heavy menstrual bleeding and endometriosis 8 years earlier. A surveillance colonoscopy performed 3 months earlier was limited by an acute angulation at the hepatic flexure. Biopsy information was not available.

On physical examination, she was afebrile, with a heart rate of 52 beats per minute and blood pressure of 111/77 mm Hg. She had moderate tenderness in the epigastrium without rebound or guarding. Laboratory studies revealed a white blood cell count of 6.8 × 10⁹ cells/L, hemoglobin 12.2 g/dL, platelet count 427 × 10⁹/L, and normal liver enzymes and lipase. C-reactive protein was <3.0 mg/L. Abdominal and pelvic computed tomography (CT) with contrast showed a stricture and wall thickening extending from the hepatic flexure into the transverse colon, with upstream dilatation consistent with large bowel obstruction (Figure 1). There was an infiltrative soft-tissue mass extending from the stricture and encasing the gastroepiploic vessels near the pancreatic head, measuring 33 × 29 mm in the greatest cross-section. Upper endoscopic ultrasound demonstrated an irregular 5-cm partially calcified hypoechoic and heterogeneous perigastric mass within the peritoneal space. CT-guided needle biopsy of the mass revealed endometrial type stroma and glands consistent with endometriosis (Figure 2).

After consultation with gynecology and colorectal surgery, the patient pursued conservative treatment with intramuscular leuprolide. One week later, she developed recurrent and was readmitted. CT imaging showed persistent obstruction at the hepatic flexure, and a colonic stent was placed to relieve the large bowel obstruction and to allow further time for treatment response to
leuprolide while planning for surgery. Colonoscopy was notable for intrinsic, severe stenosis at the hepatic flexure, which could not be traversed with an adult colonoscope (Figure 3). A 22-mm diameter by 90-mm length uncovered self-expanding colonic metal stent (Wallflex stent; Boston Scientific Corporation, Boston, MA) was successfully placed through the stricture (Figure 4). No biopsies were collected.

Two months later, she underwent repeat abdominal imaging, which did not show any interval change in the pericolonic mass in response to the leuprolide. Given concern for external compression on the colon, she underwent a diagnostic laparoscopy with excision of the endometrioid nodules with peritoneal and omental biopsies. Pathology confirmed endometriosis and was negative for malignancy. She met again with colorectal surgery and was recommended total colectomy because she was at high risk of both large bowel and stent perforation. Surgical scheduling has not yet been completed.
DISCUSSION

The GI tract is the most common location of extrapelvic endometriosis, estimated to occur in 4%–37% of women with endometriosis, with the most common site of involvement being the sigmoid colon, followed by the proximal colon, small intestine, and appendix.3 Through an inflammatory reaction, endometriosis can lead to fibrosis and scarring, leading to narrowing of the lumen and obstruction.4,5

As previously noted, endometriosis can mimic other GI diseases, including malignancy, irritable bowel syndrome, diverticulitis, and even mucosal changes suggestive of IBD.6,7 Endoscopic, histopathologic, and surgical analyses are required to otherwise differentiate between nonspecific symptoms. In addition, cyclical abdominal pain in relation to menstrual cycles cannot solely differentiate endometriosis from underlying GI symptoms in patients with IBD.8

Endometriosis and IBD can coexist and have been reported in patients with both UC and Crohn’s disease.9 The literature discussing associations between IBD and endometriosis is scarce; however, 1 study suggests an increased incidence of IBD among women with endometriosis. The authors hypothesize that endometriosis should be classified as an autoimmune disorder because it both involves alterations in cell-mediated and humoral immunity.10 Another study found that women who use oral contraceptive pills, not necessarily for endometriosis, have an increased risk of developing Crohn’s disease.11

Intestinal endometriosis may be missed endoscopically because of the futility of lesions and involvement of the serosa and muscularis propria with sparing of the mucosa.2,12,13 Our patient had a stricture of the large intestine in continuity with a peripancreatic endometrial implant. Initially, this was concerning for malignancy, especially in the setting of UC which is associated with an increased risk of colorectal cancer.14 Providers should consider endometriosis among the differential diagnosis in premenopausal women with IBD and unexplained symptoms and/or findings including obstruction.

The treatment of choice for symptomatic intestinal endometriosis is generally surgery; however, hormonal therapy is also used to control symptoms.5 Large bowel obstruction from colonic endometriosis has been treated with colonic stenting previously as a bridge to surgery.15,16 For benign colonic obstruction, American guidelines recommend dilation with or without steroid injection, electroincision, and placement of either decompression tube or expandable stent.17 European guidelines support using stents as a bridge to elective surgery, specifically for left-sided obstructing colon cancer as an alternative to emergency resection.18 Our patient was treated with leuprolide, a gonadotropin-releasing hormone analog, which decreases steroidogenesis leading to atrophy of endometrial implants. Leuprolide has been used similarly in patients with endometriosis and ureteral obstruction.19

In conclusion, we present a rare case of a young woman with UC, found to have a large bowel obstruction from endometriosis and treated successfully with leuprolide and colonic stenting. Endometriosis should be considered on the differential diagnosis of young women with abdominal symptoms, including those with known IBD.

DISCLOSURES

Author contributions: All authors contributed equally to this manuscript. FA Farraye is the article guarantor.

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