Cyclic Constipation as a Warning Sign of Colonic Perforation in Bowel Endometriosis

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INTRODUCTION

Endometriosis is a chronic, estrogen-dependent disorder that is defined by the ectopic implantation of endometrial tissue, commonly involving other nearby pelvic organs.[1,2] This can cause pain, constipation, decreased sexual satisfaction, infertility, and impaired quality of life that varies based on the location and severity of the implants.[3] Clinically, for those who suffer from bowel endometriosis, the most frequent symptoms are pain with defecation and chronic constipation.[4] However, large bowel obstruction as a result of an endometriosis-induced stricture is exceedingly rare. This report highlights a rare case of two separate but simultaneous colonic perforations of the transverse colon as a result of long-term endometriosis-induced constipation.

REPORT OF CASE

A 30-year-old woman with a history of severe endometriosis presented to rural gynecology for a possible hysterectomy, indicated by extreme dysmenorrhea and cyclic constipation. She had been hospitalized several times, her most recent admission being during her last cycle three weeks prior. Since then, she had not passed stool or flatus. A CT showed a significantly large stool burden (Figure 1). An ultrasound showed a poorly defined complex mass in the right adnexal region. After conservative constipation management failed, she was scheduled for a flexible sigmoidoscopy. However, before the procedure occurred, she developed an acute abdomen. A repeat CT scan suggested large bowel perforation (Figure 2), which was confirmed in emergent exploratory laparotomy. The surgeon noted two perforations in the transverse colon, severe endometrial disease, extensive adhesions in the pelvis, and strictures surrounding the rectosigmoid junction. He performed a double-barrel colostomy and referred her to gynecologic oncology for further management.

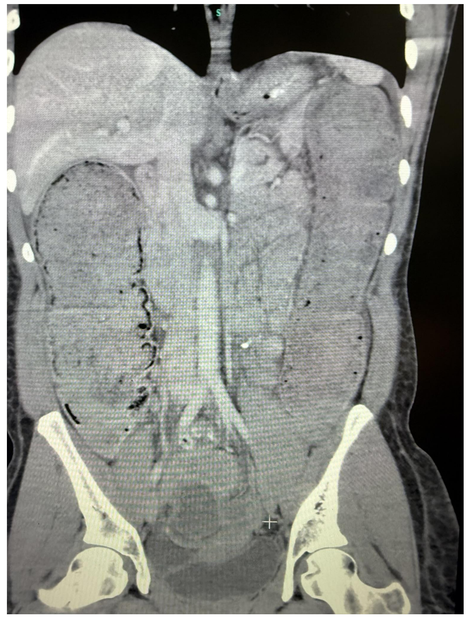

Figure 1. CT scan before the perforation. Note the significant stool burden.

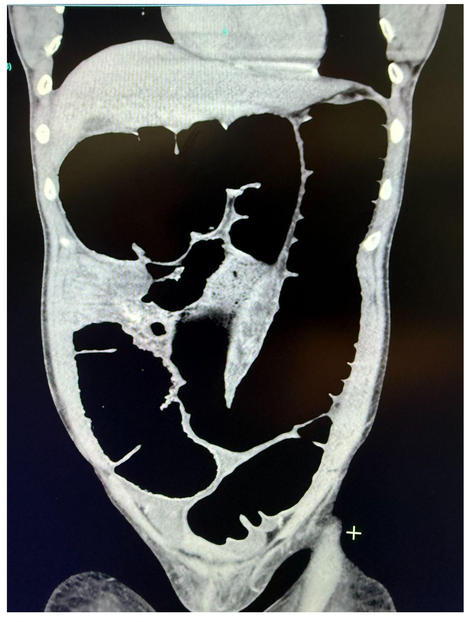

Figure 2. CT scan immediately after the perforation. Note the large amount of free air.

DISCUSSION

According to LaPlace's Law (T = P x r), the cecum is at the greatest risk of ischemic necrosis and perforation in the setting of a closed-loop obstruction, which is created by a clear transition point and a competent ileocecal valve.[5] Therefore, the transverse colon is an atypical site for a perforation,[6] and multiple perforations simultaneously are extraordinarily rare in the literature. Lack of continuity of care potentially played a role in this case, given that this patient was lost to follow-up after her diagnosis of severe endometriosis and a failed trial of combination oral contraceptives. The distance from her gynecologist increased her risk for loss of follow-up and lack of sufficient care,[7] which points to the lack of specialist support in rural areas.[8] Management for bowel endometriosis includes pain control, constipation management, menstrual cycle suppression, and surgical options. This patient received a medroxyprogesterone injection as well as letrozole, which works by reducing estrogen production, causing the endometrial implants to shrink.[9] She was referred to gynecologic oncology for future surgeries with on-site specialist support. To prevent outcomes similar to this case, it is critical to have clinical vigilance to keep an acute abdomen in the differential diagnosis of a woman with a history of endometriosis presenting with severe abdominal pain.[10]

CONCLUSION

This case demonstrates that gastrointestinal endometriosis can progress from chronic cyclic symptoms into life-threatening surgical emergencies, including atypical colonic perforation. Clinicians must maintain high clinical circumspection by proactively managing cyclic constipation in these patients to prevent rapid deterioration into an acute abdomen. Early intervention and aggressive constipation management are vital to avoiding catastrophic complications.

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