CASE REPORT

Incomplete Small Bowel Obstruction Due to Isolated Ileal Endometriosis: A Mimic of Tuberculosis

Kiran Agarwal¹ · Shivali Sehgal¹ · Mona Bargotya¹

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About the Author

Dr Kiran Agarwal is a professor in Department of Pathology, Lady Hardinge Medical College. She has done MD in Pathology from the same institute, and her area of interest is histopathology.

Introduction

Endometriosis is an estrogen-dependent disease characterized by the presence of functional endometrial tissue outside the uterus. It can be intra- or extraperitoneal. Intraperitoneal disease usually is genital and commonly involves the ovaries, uterine ligaments, fallopian tubes, pelvic peritoneum and pouch of Douglas [1]. The most

common site of extragenital endometriosis is the gastrointestinal tract (GIT), the other sites being the omentum, peritoneum and occasionally other intra-abdominal organs. Extraperitoneal disease may be seen in the cervix, vagina, abdominal scars and hernia sacs, and is uncommon. Rarely, endometriosis affects the urinary system, lungs, skin, diaphragm and central nervous system [1, 2].

The GIT is involved in 3–37 % of the females with endometriosis; the most common site being the rectosigmoid colon (72 %) followed by ileum (7 %), cecum (3.6 %) and appendix (3 %) [1–3]. Usually, the disease takes the form of small asymptomatic serosal implants, but these can progress and become symptomatic. The symptoms are usually chronic and cyclical (occurring at the time of menses) [1–3]. Acute presentations such as intestinal obstruction, appendicitis, appendicular intussusception, rectal bleeding and bowel perforation are relatively uncommon.

We present a case of a young female who presented with incomplete small bowel obstruction due to an ileal

Dr Kiran Agarwal is a Professor in Department of Pathology at Lady Hardinge Medical College and Associated Hospitals. Dr Shivali Sehgal is Senior Resident in Department of Pathology at Lady Hardinge Medical College and Associated Hospitals. Dr Mona Bargotya is a Senior Resident in Department of Pathology at Lady Hardinge Medical College and Associated Hospitals.

✉ Shivali Sehgal
shivalisehgal@gmail.com

¹ Department of Pathology, Lady Hardinge Medical College, New Delhi, India

stricture. Tuberculosis was the suspected etiology; however, it was only on histopathological examination that evidence of endometriosis of the ileum was found.

Case Description

A 23-year-old female presented with off and on pain abdomen, nausea and abdominal distension for the past 2 weeks. The patient had past history of pulmonary tuberculosis for which she had received anti-tubercular therapy 10 years ago. On ultrasound, an ileal stricture was noticed along with minimal free fluid in the abdomen. A clinical diagnosis of tuberculosis of the intestine was made. Resection of the ileal segment involving the stricture along with the removal of a mesenteric lymph node was carried out. We received an ileal segment measuring 9 cm in length. A stricture was identified 1 cm away from one cut end. Mucosa in this region was ulcerated. Rest of the intestine was unremarkable. Sections taken from the cut ends were unremarkable. Sections taken from the stricture site revealed ulceration and evidence of endometriosis (with the presence of endometrial glands and stroma) in the submucosa and smooth muscle (Figs. 1 and 2). The lymph node received separately showed features of a reactive lymph node. Ultrasound was performed subsequently, and no evidence of endometriosis was found in the pelvis.

Discussion

GIT endometriosis was first described by Sampson in 1922 [2]. Bowel endometriosis occurs as an “invasion phenomenon”—implantation begins on the serosa and may invade into the inner layers (muscularis propria, submucosa; mucosa is rarely affected) [3]. The present case also showed endometriotic glands in the submucosa and smooth muscle.

Fig. 1 Section showing ileal mucosa and submucosa with presence of endometrial glands and stroma in the lower submucosal layer (Haematoxylin and eosin, 100 ×)

Fig. 2 Section showing endometrial glands and stroma in the muscularis propria of the ileum (Haematoxylin and eosin, 100 ×)

It is clinically difficult to distinguish GIT endometriosis from other GIT pathology since there are no pathognomonic symptoms. Serosal involvement is usually asymptomatic, and symptoms appear only when muscularis propria layer is invaded. Cause of clinical symptoms is unclear—large lesions may cause fibrosis resulting in stricture and obstruction or there may be infiltration of the intestinal nerve plexus or interstitial cells of Cajal [3].

Intestinal obstruction secondary to endometriosis is more common in the small intestine as compared to the colon. Response of the ectopic endometrium to hormonal influences leads to inflammation, fibrosis and smooth muscle hyperplasia causing stricture formation and luminal narrowing.

There are no fixed guidelines for the evaluation of patients with intestinal endometriosis. Diagnosis is seldom suspected in cases with partial obstruction, and there is no reliable diagnostic test. In the absence of complications, hormonal therapy with danazol, gonadotrophin releasing hormone analogues or progestins is given [3, 4]. Role of surgery is removal of the affected area, restoration of bowel continuity and provision of tissue for definitive diagnosis.

Conclusion

The etiology of GIT endometriosis is obscure, presentation is varied, and no specific tests are available for diagnostic workup. Intestinal endometriosis mimics many diseases, most commonly tuberculosis. Endometriosis should always be kept in the differential diagnosis in cases of pain in the lower abdomen in females of reproductive age.

Compliance with Ethical Standards

Conflict of Interest We ensure that accepted principles of ethical and professional conduct have been followed in this study. The authors declare that they have no conflicts of interest.

References

1. Saleem A, Navarro P, Munson JL, et al. Endometriosis of the appendix: report of three cases. *Int J Surg Case Rep.* 2011;2:16–9.
2. Nezhat C, Hajhosseini B, King LP. Laparoscopic management of bowel endometriosis: predictors of severe disease and recurrence. *JSLs.* 2011;15:431–8.
3. Ferrero S, Camerini G, Maggiore ULR, et al. Bowel endometriosis: recent insights and unsolved problems. *World J Gastrointest Surg.* 2011;3(31):38.
4. Liao H, Hsu T. Endometriosis inducing complete colon obstruction managed by one stage resection and anastomosis. *J Soc Colon Rectal Surg.* 2010;21:43–7.