Case Report

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Endometriosis : A Rare Etiology for Small Bowel Obstruction

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Abstract

Endometriosis affecting gastrointestinal tract has been reported in 3-37% of menstruating women. It is seen in the recto-sigmoid, caecum, small bowel and the appendix in decreasing frequency. Involvement of the ileum by endometriosis is quite rare ,1-7% cases have been documented..Endometriosis of ileal segment of gastrointestinal tract leading to intestinal obstruction ranges from 7% to 23%.We report a 40 year. old female who presented with complete intestinal obstruction ten days with history of recurrent subacute intestinal obstruction for one year. She was previously treated with empirical Antitubercular drug to which she did not respond. Now histology of the resected specimen showed endometriosis in muscular propria and submucosa , leading to fibrosis and stricture formation.

Keywords: *Endometriosis, Ileum, obstruction*

Introduction

Endometriosis is a very common condition in women of reproductive age group. Upto 15% of menstruating women suffer from endometriosis.[1]Endometriosis can be both intra- and extra- peritoneal .Gastrointestinal involvement of endometriosis has been found in 3-37% of women, most commonly in recto sigmoid area.[2] Nonneoplastic causes of small bowel obstruction are rare for example intussusception, Crohns disease, fecal impaction ,foreign body ,chronic mega colon and endometriosis. We report a 40 year old female, who presented with recurrent sub acute intestinal obstruction and underwent laparoscopic assisted segmental ileocolic resection and end ileostomy . Histological analysis of the operative specimen revealed ileal and nodal endometriosis.

Case Report

A 40 year old female presented in Outdoor patient department with history of abdominal pain, constipation and vomiting for 10 days. She complained of similar symptoms 1 year ago for which she was evaluated and treated outside with Anti Tubercular drugs based on recurrence of symptoms and Indian scenario She complained that her symptoms aggravated during her menstrual cycles. Contrast enhanced Computerized Tomography Imaging studies showed a stricture at distal ileum and proximal bowel loops were distended.

She underwent laparoscopic assisted segmental ileocolic resection and end ileostomy .Intraoperatively multiple reddish deposits were noted in the parietal and visceral peritoneum(Figure 1). The resected specimen showed four strictures(Figure 2),of which the largest stricture grossly showed a cystic area containing dark brown material. Microscopic sections Of the largest stricture showed normal ileal mucosa, muscularis propria showed scattered benign endometrial glands and stroma (Figure 3) which were further highlighted immunohistochemically by ER(Figure4) . Microscopic sections of the remaining three strictures showed fibrosis only .One out of 5 pericolic lymph nodes showed endometriotic gland inclusion. However resected margins were uninvolved.

Post-operatively the patient was referred to a gynecologist in view of endometriosis of small bowel. She was started on injection Goserelin acetate.

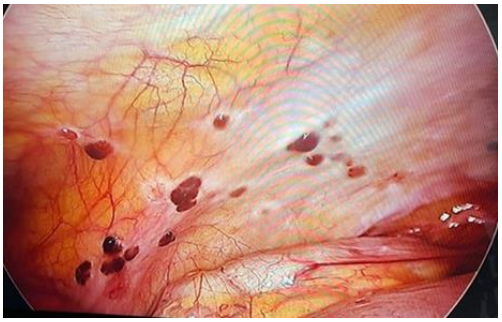

Figure 1: Multiple reddish spots on the peritoneum captured Intraoperatively

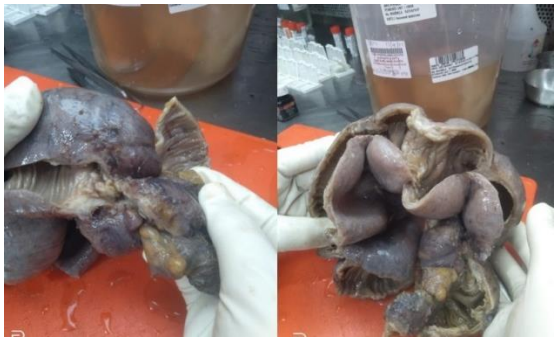

Figure 2: Gross specimen of small intestine with multiple adhesions

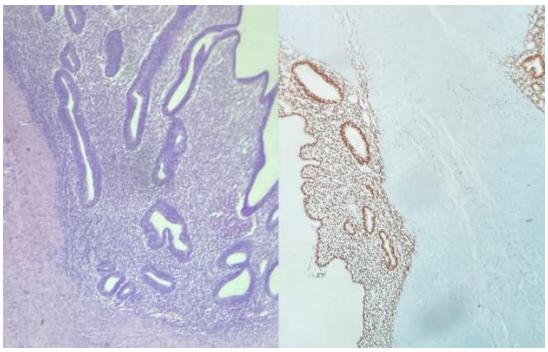

Figure 3&4: H & E stain slide shows Foci of endometrial glands and stroma in the muscle layer of ileum. It is highlighted and confirmed by IHC stain of ER

Discussion

There are several hypothese regarding etiopathogenesis of endometriosis like retrograde menstruation, metaplastic transformation and neurological transmission.

The true incidence of endometriosis causing bowel obstruction is unknown[6],although complete obstruction of the bowel lumen occurs in less than 1% of cases.[7]Our case presented with obstructive symptoms of pain abdomen and projectile vomiting.

Endometriotic sites in the abdomen can be both intra-peritoneal or extra-peritoneal .The intra-peritoneal sites include ovaries(30%), utero-sacral ligament (18-24%), fallopian tubes(20%), pelvic peritoneum, pouch of Doughlas, gastrointestinal tract(3-37%), ,umbilicus1%), gynaecological surgery (1.5%) and caesarean section(0.5%).[3]The rectosigmoid is the most common site for intestinal endometriosis(70%),while small bowel involvement ,usually confined to the distal ileum, is less frequent(1-7%).[4]In a review of 100 women who underwent laparotomy for gynaecological symptoms, Jubanyik et al described 181(18%) cases of gastrointestinal endometriosis ,but only one patient had small bowel involvement.[5]In this case endometriotic foci was opposite to ileal mucosa.

It is difficult to establish a preoperative diagnosis of gastrointestinal endometriosis, because it mimics a wide spectrum of gastrointestinal tract symptoms including irritable bowel syndrome, inflammatory bowel syndrome, ischemic enteritis and neoplasm. Gastrointestinal endometriosis patients present with relapsing bouts of abdominal pain, distention, tenesmus, constipation and diarrhea. In this case the patient had an episode of abdominal pain and distention for which she was treated with Antitubercular drugs in some local hospital.

The incidence of intestinal resection for bowel obstruction is 0.7% among patients undergone surgical treatment for abdominopelvic endometriosis.[8.The diagnosis of endometriosis is confirmed by histopathological examination of resected specimen. Endoscopic biopsies usually yield insufficient tissue for a definitive pathologic diagnosis as endometriosis involves the deep layers of the bowel wall. In this case initially diagnosis was missed because of lack of any histopathological examination

The symptoms like abdominal pain ,nausea and vomiting are so generalized and common that they may mimic so many varied clinical conditions. While in some cases the hint is the intestinal symptoms get exacerbated by menses.However this association may not always be present .In this case ,the association of abdominal symptoms with periodicity of menstrual cycle was elicited by proper history taking.

Enteric endometriosis is usually subserosal with less frequent involvement of muscularis propria and submucosa.The mucosa is usually intact and uninvolved. In this case the endometrial gland and stroma was infiltrating muscularis propria which led to fibrosis and stricture.

Another characteristic aspect in this case was endometriotic gland in pericoilc lymph node.Although lymph node dissection is not performed in a benign case,in this case the specimen did include five pericolic lymph nodes.

Conclusion

Endometriosis needs to be always kept in the bucket list of differential diagnosis of acute intestinal obstruction in a female of reproductive age group. The history of symptoms aggravated during menstruation can point to the diagnosis. Diagnostic laparoscopy is the gold standard in detecting endometriotic lesions.Although it is a challenging condition for clinicians,vivid and elaborate clinical history and its correlation can hit the bulls eye.

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