

Cyclical constipation

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Abstract

Intestinal endometriosis is a rare disease. It can have a varied presentation. It is difficult to differentiate it from malignancy by clinical, endoscopic or imaging features. We present a 35-year-old nulliparous married lady, who presented to us with constipation, painful defecation and bled per rectum for last 3 years. She was diagnosed to have endometriosis with gold standard laparoscopy and managed with medical line of therapy.

Key words

Constipation, endometriosis, painful defecation, rectosigmoid

Introduction

Endometriosis is defined as the appearance of endometrial glands and stroma outside the uterine cavity and musculature. Among the extragenital site, intestinal endometriosis is most common. However, it is imperative to differentiate it from malignancy, owing to similar endoscopic and radiologic findings. We present a nulliparous married lady with a colonic endometriosis.

Case Report

The 35-year-old female came to us with complaints of constipation in form of <3 bowel movements in a week for last 3 years. Each bowel movement was associated with straining, hard stools, feeling of incomplete evacuation and painful defecation. She noticed blood in stools which along with constipation, which used to worsen prior to menstruation and relieved after menstruation. She took multiple laxatives for constipation with partial relief. There was no history of digital evacuation, weight gain or loss and other medication use. There was no history of any co-morbidity or surgery in the past. Her menarche was at the age of 14 years, and her cycle was regular at every 28–30 days, lasting 3–5 days. She was married for the last 10 years. The patient was

nulliparous and had an abortion 8 years back. Physical examination and per rectal examination were unremarkable including anal sphincter tone. Laboratory parameters showed normal investigations, including hemoglobin of 11.3 g/dl (normal 11.5–14.5 g/dl), serum calcium 9.5 mg/dl (normal 8.5–11.5 mg/dl) and thyroid stimulating hormone 2.3 U/dl (normal 0.5–4.5 U/dl). Colonoscopy was performed, which revealed proliferative, near circumferential growth with surface ulceration causing luminal narrowing in sigmoid colon at 20 cm from anal verge [Figures 1 and 2] and rest of the colon till caecum was normal. Mucosal biopsies from the lesion showed chronic nonspecific inflammation with no dysplasia. Magnetic resonance imaging (MRI) was done, which showed near circumferential sigmoid colon wall thickening which was hyperintense on T1-weighted (T1-W) and T2-weighted (T2-W) sequence, which was continuous with uterine wall but no lymphadenopathy or metastasis. Endoscopic ultrasonography [Figure 3] showed eccentric band of hypoechoic thickening of the muscularis propria measuring 0.76 cm with a band extension of isoechogenicity into the pericolonic area. The underlying mucosa and submucosa, including muscularis mucosa appear unremarkable with no lymphadenopathy. In view of the cyclical nature of bleeding with constipation and other inconclusive investigations, laparoscopy was performed to confirm endometriosis. Laparoscopy [Figure 4] revealed endometrial deposits showing burnt powder appearance on the urinary bladder, lateral pelvic wall and anterior sigmoid colon and rectal wall with bilateral chocolate cyst appearance of ovaries and multiple adhesions between rectum, fallopian tube and uterus. Biopsies taken were suggestive of fibroadipose tissue with lymphocyte infiltration. She was diagnosed to have a sigmoid colon endometriosis causing luminal narrowing. She was started on gonadotropin-releasing hormone after consultation regarding

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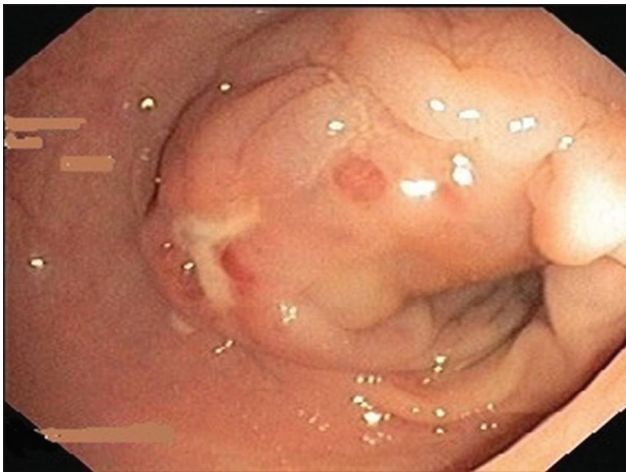


Figure 1: Circumferential lumen narrowing lesion of endometriosis

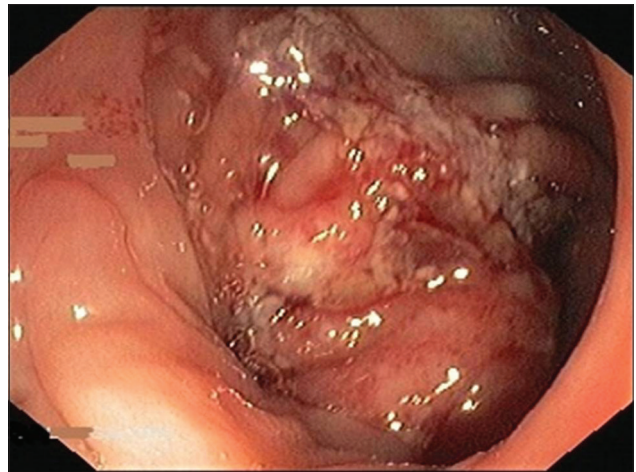


Figure 2: Ulcerated lumen narrowing lesion of endometriosis

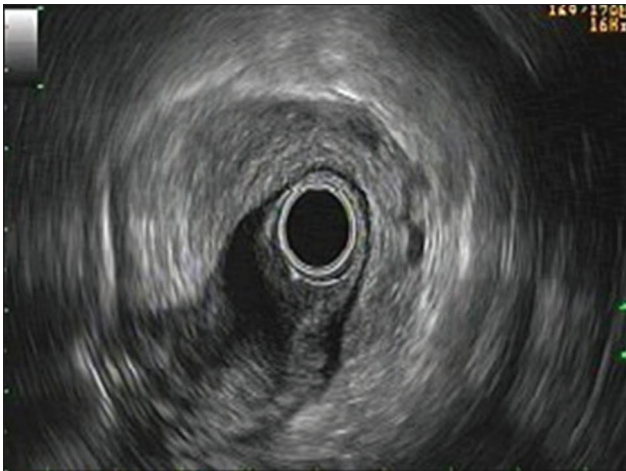


Figure 3: EUS showing eccentric band of hypoechoic thickening of the muscularis propria

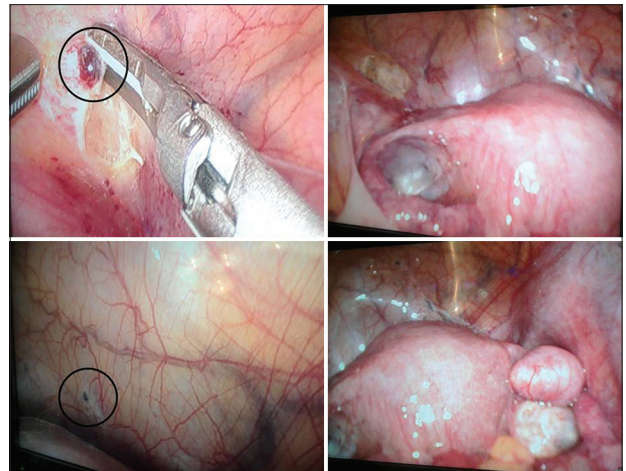


Figure 4: Laparoscopy showing endometrial deposits with burnt powder appearance

fertility and were doing well for the last 3 months with medical line of treatment. Her bowel habits have normalized with no bleeding.

Discussion

Rokitansky^[1] coined the term endometriosis in 1860, which is defined as the appearance of endometrial glands and stroma other than uterine cavity or musculature.^[2] It affects women of reproductive age group. It involves the intestine tract in about 3–37% of patients affected with pelvic endometriosis.^[3] Rectosigmoid colon is most commonly affected part of the intestine, followed by appendix, distal ileum, and cecum.^[4] In a review of 379 patients with endometriosis, extragenital endometriosis constitutes of 8.9%.^[5] In the same study, intestinal endometriosis constituted about 32.3% of extragenital endometriosis.^[5]

The clinical features of intestinal endometriosis are varied depending on the structure or site of involvement. The presentation can range from asymptomatic to critical symptoms

like pelvic or lower back pain, constipation, diarrhea, cyclical rectal bleeding and rarely intestinal obstruction that may be associated with menstruation. According to the structure of involvement, mucosal involvement presents as polypoid bleeding mass, while muscularis propria or serosal involvement presents as submucosal tumor or luminal stenosis.^[6] According to the site of involvement, rectosigmoid involvement causes altered bowel habits with bleeding, while colonic affection causes perforation or peritonitis.^[7] Small bowel involvement can cause repeated abdominal pain with bloating while distal ileum presents with acute or chronic obstruction.^[7] On vaginal examination, painful pelvic nodularities and visible nodules in the posterior fornix are suggestive of the infiltrating recto-vaginal endometriosis. Chapron *et al.*,^[8] showed severe dyspareunia and painful defecation, while Griffiths *et al.*,^[9] showed apareunia, nausea or abdominal bloating are associated with the infiltrating recto-vaginal endometriosis.

The manifestations of endometriosis need to be differentiated from malignancy, inflammatory bowel disease or ischemic colitis. Hence, investigations are helpful for distinguishing

endometriosis, but they are not diagnostic. Serum CA 125 may help in the diagnosis of advanced stages of endometriosis, more so when done early in menstrual period.^[10] MRI of the abdomen is best imaging technique with sensitivity and specificity being 76% to 80% and 98% to 99%, respectively.^[11] It shows loss of fat-tissue plane between colorectal wall and uterus with soft tissue mass extending along the colorectal wall showing hyperintense signals on T1-W images and loss of hypointense signal of anterior bowel wall on T2-W images.^[11] The modifications of sonography through transvaginal and transrectal route have shown to be more accurate for diagnosis of colorectal endometriosis. Transrectal endoscopic ultrasound helps in the evaluation of the submucosal lesion, recto-vaginal septum, and to determine layer of origin of the lesion with sensitivity and specificity being 97% and 96% respectively.^[12]

Colonoscopy can be useful in excluding other gastrointestinal pathologies and rarely evaluation of lesions that have mucosal infiltration. In patients with endometriosis, colonoscopy shows eccentric wall thickening, polypoidal bleeding lesion and surface nodularity. In a study by Kim *et al.*, consisting of 17 patients most common location of colorectal endometriosis was rectum (88%), followed by sigmoid colon (12%).^[13] In the same study, colonoscopy also showed eccentric wall thickening in 82% of patients, polypoid lesions in 18% of patients and surface nodularity was found in 71% of patients.^[13]

In spite of all the above investigations, laparoscopy still remains the gold standard diagnostic procedure for endometriosis.^[12] It not only helps in identifying the extent and degree of lesions but also obtains tissue for histological diagnosis. It shows classical lesions like powder burn or gunshot lesions which are bluish, black or dark brown nodules or cyst containing old hemorrhage. The other nonclassical lesions include vesicles, plaques, scaring or adhesions. Laparoscopic intraoperative visualization is diagnostic and histological biopsy is only contributory if positive.^[12] It can also be therapeutic at the same situation.^[12]

Intestinal endometriosis being a rare presentation, there is a lack of consensus regarding the treatment. There are a number of factors to be considered before deciding for the treatment such as age, infertility, future pregnancies and intestinal symptoms. The goals of therapy include symptom resolution, extraction of endometrial tissue, and stopping the disease progression. The treatment of endometriosis includes medical or surgical intervention.^[12] The medical therapies include oral contraceptives, high-dose progestins, gonadotropin releasing agonists (GnRH), and danazol.^[12] Some studies have shown GnRH to be more efficacious than oral contraceptives.^[12] The

patients most suitable for medical therapy includes those not wanting pregnancy and who have undergone unsuccessful surgical intervention.^[12] The medical therapy is contraindicated in patients with symptomatic bowel stenosis, obstructive uropathy, doubtful etiology of an adnexal mass and those who are desiring pregnancy. The indications for surgical interventions include bowel obstruction, nonresponders, noncompliance, and those not willing for medical therapy.^[12]

To conclude, intestinal endometriosis is a rare entity. Due to lack of reliability of clinical features, endoscopic procedures and radiological studies, it is arduous to distinguish it from malignancy. In the absence of tests for preoperative diagnosis and lack of consensus for therapy, it is imperative to consider intestinal endometriosis in women with reproductive age group who are presenting with intestinal symptoms or intestinal mass of unidentified origin.

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