

Case Report

A rare case of invasive endometriosis of sigmoid colon incidental finding in case of tubo-ovarian endometriosis

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ABSTRACT

Endometriosis is a common gynaecological disease in child bearing age group women. Ectopic endometrium most commonly involves the ovary and uterine sacral ligament but intestinal endometriosis is a rare condition. In this case report, we present a case of sigmoid endometriosis with clinical presentation of bowel obstruction. Histopathological examination of the specimen is the main basis for the diagnosis of intestinal endometriosis. Surgery and hormonal therapy were the effective method for the treatment of intestinal endometriosis. It should be considered as a differential diagnosis in the females at fertile age group presenting with gastrointestinal symptoms and intestinal mass causing bowel obstruction.

Keywords: Intestinal endometriosis, Sigmoid, Resection, Anastomosis, Rare, Diagnosis, Treatment

INTRODUCTION

Incidence of endometriosis in young women is 10%.¹ Endometriosis is the presence of active endometrium tissue outside the uterine cavity.² Ovary is the most common site for endometriosis. Most common symptom of pelvic endometriosis is dysmenorrhea, dyspareunia and infertility. Gastro intestinal tract (GIT) endometriosis is rare entity. GIT endometriosis accounts for 3-37% of all cases of endometriosis.¹⁻³ Sigmoid colon is the most frequently involved followed by rectum and ileum.^{2,4} Bowel endometriosis is mostly asymptomatic but it can produce nonspecific symptoms such as colicky pain, nausea, vomiting, constipation and these symptoms are cyclic.^{2,5} Retrograde menstruation is one of the causes of endometriosis, other causes include vascular dissemination, colonic metaplasia, and autoimmune disease.^{6,7} Intestinal endometriotic tissue respond to ovarian hormones and it causes bleeding per rectum during menstrual phase and causing pain, fibrosis, scarring and

ultimately obstruction. Intestinal endometriosis mainly involves the submucosal, muscularis and subserosal layer and mucosal layer rarely involved. Radiological investigations like computed tomography (CT) and magnetic resonance imaging (MRI) shows non-specific features such as thickened bowel wall with narrow lumen. Endoscopy biopsy in intestinal endometriosis is generally non diagnostic as mucosal layer is generally spared in it. Gold standard for diagnosis is laparoscopy and biopsy.^{1,8} First line drug therapy for endometriosis is non-steroidal anti-inflammatory drugs with oral contraceptive pills used cyclically or continuously. Other options include gonadotrophin releasing hormone agonist and aromatase inhibitors.

CASE REPORT

A 37-year-old female patient was admitted to the hospital with chief complaint of lower abdominal pain, menorrhagia, and dysmenorrhea for 2 months and

constipation for last 1 month with no history of bleeding per rectum and it was not related to menstrual cycle. For lower abdominal pain, patient started taking pain killer by herself and then patient was visited to AIIMS Bilaspur, when her pain did not resolve despite taking pain killers and she had advised ultrasonography which was suggestive of uterine lesion. She was diagnosed with abnormal uterine bleeding for which she was investigated, her CECT abdomen and pelvis was suggestive of large heterogenous lesion of size 6.5×6.5×5.7 cm involving uterus. Right ovary was bulky, showing cystic lesion of size 4.7×6×5.5cm and left ovary was normal in size. CECT abdomen shows short segment circumferential thickening showing heterogenous enhancement arising from sigmoid colon measuring 3.8×3.2×3.6 cm and this lesion is protruding into the lumen of sigmoid colon (Figures 1 and 2).



Figure 1: Saggital view of CECT abdomen showing the local thickening at sigmoid colon in the left lower abdomen which causes significant luminal narrowing.

For this sigmoid lesion, general surgery consultation was taken for which colonoscopy was advised. Colonoscopy was showing irregular protruding growth in sigmoid colon about 30 cm from anal verge from which biopsy was taken.

Biopsy showed chronic inflammatory features; no evidence of malignancy was seen. Patient was planned for diagnostic laparotomy and proceeds from gynaecological department and surgery consultation was taken for intra-operative assessment for sigmoid lesion.



Figure 2: Axial view of CECT abdomen showing thickening at the sigmoid colon causing luminal narrowing.

Trans-abdominal hysterectomy with bilateral salpingo-oophorectomy was performed from gynaecology department. Intra-operative exploration showed bulky uterus and adhesions between uterus and bladder. There is thickening of 3 cm sigmoid colon with with partial occlusion of lumen (Figures 3 and 4).



Figure 3: Intra-operative exploratory laparotomy revealed a stricture causing luminal narrowing in sigmoid colon.

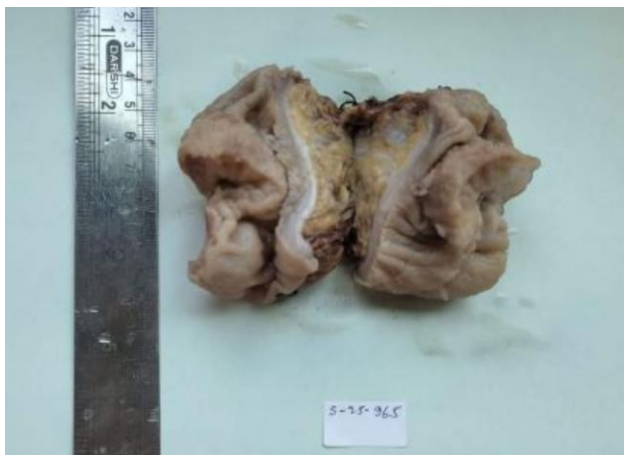


Figure 4: Gross surgical pathology specimen showing sigmoid colon stricture involving 3 cm of sigmoid colon and involving 50% circumference of sigmoid colon.

So, resection of 5 cm of sigmoid colon and double barrel sigmoid colostomy was made. Post-operative histopathology report showed endometrial gland and stroma in sigmoid colon which was suggestive of sigmoid endometriosis (Figure 5).

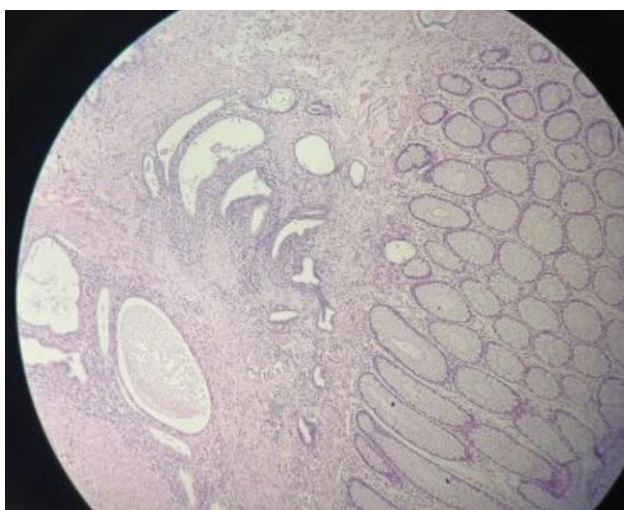


Figure 5: Histopathology showed endometrial gland and stroma in the tissue and bowel endometriosis was considered.

Patient sigmoid colostomy was functional 4 days after surgery. Patient was uneventfully discharged 10 days after surgery and continued GNRH-analogue after surgery.

DISCUSSION

It is difficult to diagnose intestinal endometriosis preoperatively due to its overlapping clinical features and radiological features with other intestinal pathology such as carcinoma, inflammatory bowel disease. Definitive diagnosis is made by histopathological examination. GIT is involved in about 3-37% cases of endometriosis and the

most common site in intestinal endometriosis is recto-sigmoid colon.¹⁻³ Sigmoid colon is the most commonly involved followed by rectum and ileum.^{2,4} Bowel endometriosis is mostly asymptomatic but it can produce nonspecific symptoms such as nausea, colicky pain abdomen and constipation.^{2,5} Among all cases of intestinal endometriosis, only 0.1-0.7 present with obstruction. Retrograde menstruation is one of the causes of endometriosis other causes include vascular dissemination, colonic metaplasia and autoimmune disease. Intestinal endometriotic tissue respond to ovarian hormones and it causes bleeding per rectum during menstrual phase and causing pain, fibrosis, scarring and ultimately obstruction.^{6,7} Intestinal endometriosis mainly involves the submucosal, muscularis and subserosal layer and mucosal layer rarely involve in endometriosis. Radiological investigations like CT and MRI shows non-specific features such as thickened bowel wall with narrow lumen. Endoscopy biopsy in intestinal endometriosis is generally non diagnostic as mucosa is sparing in intestinal endometriosis. Gold standard diagnosis is laparoscopy and biopsy.^{1,8} First line drug therapy for endometriosis is NSAIDs with oral contraceptive pills used cyclically or continuously. Other options include Gonadotrophin releasing hormone agonist and aromatase inhibitors. Surgery is the main choice of treatment symptomatic endometriosis because in case of medical therapy, symptoms recur when medication discontinued. The main surgical methods for intestinal endometriosis include shaving excision, full thickness disc resection and segmental excision and re-anastomosis. Intestinal endometriosis should be considered in the differential diagnosis of females at fertile age presenting with gastrointestinal symptoms and intestinal mass causing bowel obstruction.

CONCLUSION

Large bowel endometriosis is a rare entity. Clinical symptoms are similar to other gastrointestinal diseases. It is challenge for surgeons to diagnose endometriosis preoperatively because symptoms, signs and radiological imaging such ultrasonography and CECT abdomen are non-specific showing intestinal obstructive features and thickening at large bowel. Colonoscopy is also normal in cases of large bowel endometriosis. Histopathological examination of resected specimen is the basis for diagnosis of bowel endometriosis.

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REFERENCES

1. Long-Zhi Z, Jian G, Wei L. Endometriosis within the sigmoid colon: A rare cause of bowel obstruction. Pak J Med Sci. 2020;36(6):1421-24.
2. Nguyen P, Kirstin PH, Janice OMD, Kevin GA. History Matters: A Rare Case of Rectosigmoid

- Endometriosis Disguised as Colorectal Malignancy. *Am J Gastroenterol.* 2024;119(10S):S1996.
3. Tsuei A, Nezhat F, Amirlatifi N, Najmi Z, Nezhat A, Nezhat C. Comprehensive Management of Bowel Endometriosis: Surgical Techniques, Outcomes and Best Practices. *J Clin Med.* 2025;14(3):977.
 4. Mittelstadt S, Stäbler A, Kolb M, Krämer B, Horvat H, Reisenauer C, et al. Acute endometriosis-related sigmoid perforation in pregnancy- case report. *BMC Pregnancy Childbirth.* 2022;22(1):647.
 5. Muşat F, Păduraru DN, Bolocan A, Constantinescu A, Ion D, Andronic O. Endometriosis as an Uncommon Cause of Intestinal Obstruction-A Comprehensive Literature Review. *J Clin Med.* 2023;12(19):6376.
 6. Thirumurthy SK, Mohammed M. A rare case of invasive endometriosis causing intestinal obstruction. *J Surg Case Rep.* 2024;2024(2).
 7. Frouhar F, Mesbah N, Esmailpour S, Bastani P, Salimi M. Endometriosis Presenting as a Rare Cause of Intestinal Perforation: A Case Report With Literature Review. *Clin Case Rep.* 2025;13(2).
 8. Khawaja UB, Khawaja AA, Gowani SA, Shoukat S, Ejaz S, Farzana Nawaz Ali, et al. Frequency of endometriosis among infertile women and association of clinical signs and symptoms with the laparoscopic staging of endometriosis. *J Pak Med Assoc.* 2009;59(1):30-4.
 9. Nezhat C, Li A, Falik R, Copeland D, Razavi G, Shakib A, et al. Bowel endometriosis: diagnosis and management. *Am J Obstet Gynecol.* 2018;218(6):549-62.

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