Case Report

Rectosigmoid endometriosis as a diagnostic chameleon mimicking colorectal carcinoma

Shraddha Rakesh Singh[1], Vijay Dhondiraj Dombale[2], Rahul Yeshwant Sakpal[3], Amardeep Ajinath Patil[4]

From [1]Junior Resident, [2]Professor and Head, [3]Professor, [4]Associate Professor, Department of Pathology, BKL Walawalkar Rural Medical College, Chiplun, Maharashtra, India

ABSTRACT

Bowel endometriosis is an uncommon manifestation of endometriosis that can clinically and radiologically mimic colorectal malignancy. Because the disease predominantly involves the deeper layers of the bowel wall with relative sparing of the mucosa, endoscopic findings may be normal, posing a significant diagnostic challenge. A 38-year-old woman presented with abdominal distension, epigastric pain, vomiting, constipation, and loss of appetite for 3 months. Radiological imaging revealed circumferential wall thickening at the rectosigmoid junction with luminal narrowing and features suggestive of distal colonic obstruction suspicious for malignancy. Sigmoidoscopy demonstrated normal mucosa with the inability to negotiate the scope beyond the narrowing. Mucosal biopsy revealed chronic non-specific colitis. Due to persistent radiological suspicion of malignancy, surgical resection was performed. Histopathological examination demonstrated endometrial glands and stroma infiltrating the serosa, muscularis propria, and submucosa of the rectosigmoid colon, confirming the diagnosis of rectosigmoid endometriosis. Rectosigmoid endometriosis may closely mimic colorectal carcinoma on imaging, while endoscopic findings remain non-specific. Awareness of this diagnostic pitfall is essential in reproductive-age women presenting with colorectal obstruction to prevent misdiagnosis and unnecessary radical treatment.

Key words: Bowel endometriosis, Colorectal obstruction, Diagnostic mimic, Rectosigmoid endometriosis, Reproductive-age women

Endometriosis is defined as the presence of ectopic endometrial glands and stroma outside the uterine cavity. It is a chronic gynecological condition commonly affecting women of reproductive age. Gastrointestinal involvement occurs in approximately 5–12% of patients with endometriosis, with the rectosigmoid colon being the most frequently involved segment [1]. Bowel endometriosis can present with symptoms and radiologic findings that closely resemble colorectal malignancy [2-4]. The disease typically involves the serosa and muscularis propria of the bowel wall with relative sparing of the mucosa [1,5]. Consequently, colonoscopic examination may reveal normal mucosa despite significant transmural disease, resulting in diagnostic confusion [1,6,7].

We report a case of rectosigmoid endometriosis presenting as suspected colorectal carcinoma with inconclusive endoscopic findings, highlighting the importance of considering this entity in the differential diagnosis of colorectal obstruction in women of reproductive age [2,3,6].

Access this article online	
Received - 06 March 2026 Initial Review - 18 March 2026 Accepted - 15 April 2026	Quick Response code
DOI: 10.32677/ijcr.v12i5.8151	

CASE REPORT

A 38-year-old female presented with complaints of abdominal distension, epigastric pain, which is colicky, moderate intensity, intermittent, aggravated after meals, vomiting, which is of non-bilious, 2–3 episodes/day, more after food intake, constipation, and reduced appetite for 3 months. There was no history of rectal bleeding, melena, hematemesis, urinary complaints, or significant weight loss. Her menstrual cycles were regular.

Routine laboratory tests such as hemoglobin, Total leukocyte count, liver and renal function tests, were within normal limits.

Radiological imaging revealed circumferential wall thickening at the rectosigmoid junction with luminal narrowing and proximal colonic dilatation suggestive

Correspondence to: Shraddha Rakesh Singh, Junior Resident, Department of Pathology, BKL Walawalkar Rural Medical College, Sawarde, Chiplun - 415 606, Maharashtra, India. E-mail: singhshraddha07697@gmail.com

of distal colonic obstruction, suspicious for malignancy (Fig. 1).

Colonoscopy demonstrated normal mucosa with an inability to negotiate the scope beyond the narrowed segment. Mucosal biopsy revealed chronic non-specific colitis. Due to persistent radiologic suspicion of malignancy, surgical resection was undertaken (Fig. 2). Due to persistent suspicion of malignancy, segmental resection of the rectosigmoid colon with hysterectomy and bilateral salpingo-oophorectomy was performed. Intraoperatively, a firm indurated lesion involving the rectosigmoid junction with proximal bowel dilatation and adhesion to the uterus was noted.

We received a specimen of distal sigmoid colon with proximal rectum measuring approximately 15 cm in length. A circumferential indurated area was noted at the rectosigmoid junction with adhesion to the uterine adnexa. The accompanying specimen consisted of the uterus with cervix, bilateral fallopian tubes, and ovaries measuring 8 × 5 × 3 cm (Fig. 3).

Histopathological examination revealed endometrial glands lined by benign columnar epithelium surrounded by endometrial-type stroma involving the serosa, muscularis propria, and submucosa of the rectosigmoid colon. Associated fibrosis and focal hemorrhage were noted. No evidence of dysplasia or malignancy was identified. These findings were consistent with rectosigmoid endometriosis (Fig. 4).

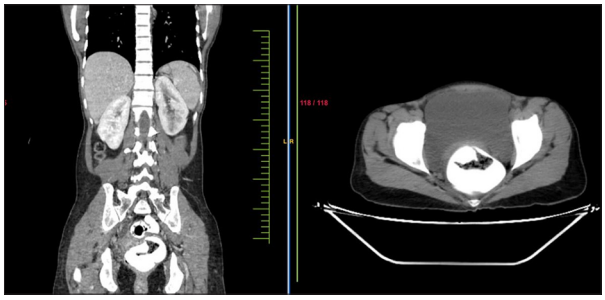

Figure 1: Contrast-enhanced computed tomography scan showing circumferential wall thickening at the rectosigmoid junction with luminal narrowing and proximal colonic dilatation suggestive of distal colonic obstruction

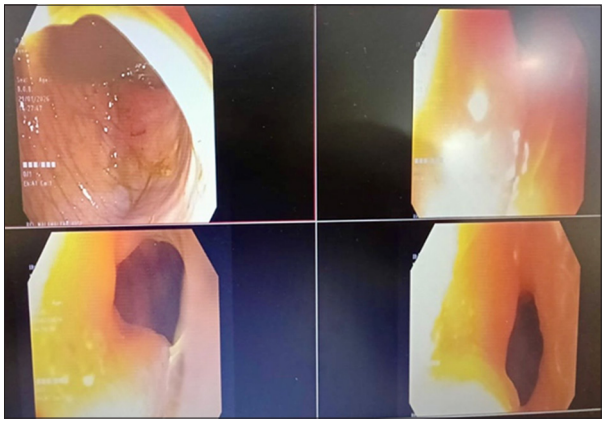

Figure 2: Colonoscopic image showing luminal narrowing at the rectosigmoid junction with relatively normal appearing mucosa

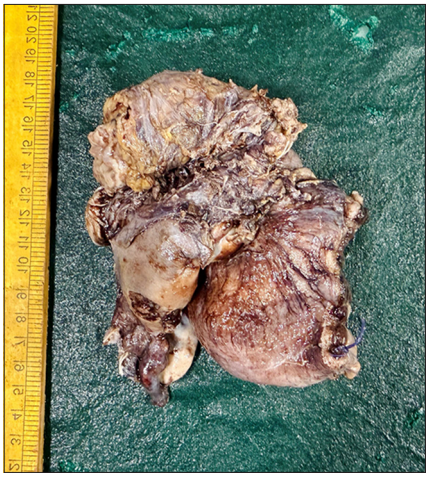

Figure 3: Gross specimen of rectosigmoid colon showing circumferential indurated lesion with adhesion to uterine adnexa

DISCUSSION

Rectosigmoid endometriosis is a well-recognized diagnostic mimic of colorectal malignancy because of its infiltrative growth pattern and ability to produce circumferential wall thickening and luminal narrowing. Radiologic findings often raise a strong suspicion of malignancy, particularly when associated with features of bowel obstruction [2,3,6,8]. Endoscopic evaluation may be misleading because bowel endometriosis predominantly involves the serosa and muscularis propria, with relative sparing of the mucosa. Consequently, mucosal biopsies frequently reveal non-specific findings such as chronic colitis, leading to diagnostic uncertainty [1,6,7].

In the present case, both radiologic and endoscopic findings suggested a possible neoplastic lesion. However, definitive diagnosis was established only after histopathological examination of the resected specimen, which demonstrated characteristic endometrial glands and stroma within the bowel wall, a pattern emphasized in prior clinicopathologic studies [1]. Liang *et al*. reported a similar case misdiagnosed as malignancy. Engman *et al*. described obstruction due to rectosigmoid endometriosis [6]. Yantiss *et al*. highlighted transmural involvement as a key feature [1].

Although benign, rectosigmoid endometriosis can mimic malignancy clinically, radiologically, and intraoperatively due to fibrosis, adhesions, and transmural involvement [2-4,6,9,10]. Differential diagnoses based on these radiological findings most commonly include tuberculosis, colorectal adenocarcinoma, gastrointestinal stromal tumor, lymphoma, Crohn's disease, and endometriosis.

Therefore, in women of reproductive age presenting with colorectal obstruction and discordant endoscopic biopsy findings, bowel endometriosis should be considered an important differential diagnosis [1,2,3,6].

Bowel endometriosis can mimic colorectal carcinoma clinically and radiologically. Endoscopic biopsies may be inconclusive because the mucosa is often spared. Histopathological examination remains the gold standard

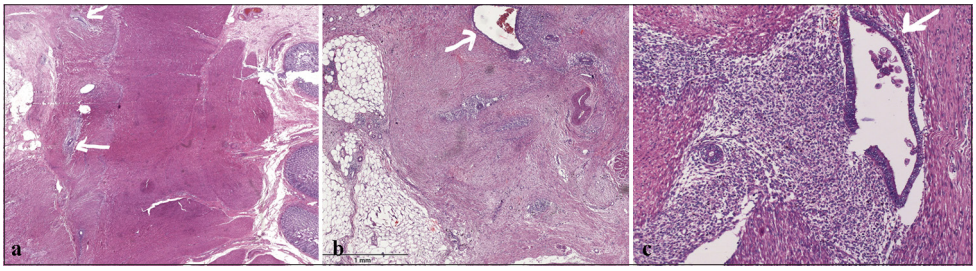

Figure 4: (a) Photomicrograph showing white arrow indicating endometrial glands and surrounding endometrial-type stroma within the muscularis mucosae of bowel with mucosal sparing (Hematoxylin and Eosin stain, ×100); (b) Photomicrograph showing white arrow indicating endometrial glands and surrounding endometrial-type stroma within serosa and muscularis mucosae of bowel (Hematoxylin and Eosin stain, ×100); (c) High-power view showing white arrow indicating benign endometrial glands lined by columnar epithelium surrounded by endometrial stroma (Hematoxylin and Eosin stain, ×400)

for definitive diagnosis. Awareness of this diagnostic pitfall can prevent misdiagnosis and unnecessary radical oncologic treatment.

CONCLUSION

Rectosigmoid endometriosis can closely simulate colorectal carcinoma both clinically and radiologically. When imaging suggests malignancy but endoscopic findings are inconclusive, particularly in reproductive-age women, bowel endometriosis should be considered in the differential diagnosis.

ACKNOWLEDGMENT

The authors sincerely thank the Department of Pathology, BKL Walawalkar Rural Medical College, for their support in providing necessary facilities and guidance. We also acknowledge the technical staff for their assistance in histopathological processing and slide preparation.

REFERENCES

1. Yantiss RK, Clement PB, Young RH. Endometriosis of the intestinal tract: A study of 44 cases of a disease that may cause diverse challenges in clinical and pathologic evaluation. Am J Surg Pathol 2001;25:445-54.
2. Liang Y, Mei L, Ning Q, Zhang J, Fei J, Dong J. A case of rectal endometriosis misdiagnosed as rectal malignancy on three colonoscopies and biopsies sharing a combined literature review. Int J Womens Health 2024;16:163-74.
3. Tripathi R, Sharma A, Gupta P, Yarra P, Nelson A. Rectosigmoid endometriosis masquerading as colon cancer. Am J Gastroenterol 2025;120 10 Suppl 2:S858-9.
4. Kim SH, Kim SH, Yang DM, Kim H, Sohn SK, Cho CH, *et al*. Intestinal endometriosis mimicking carcinoma: Report of five cases. World J Gastroenterol 2008;14:1472-7.
5. Bazot M, Darai E, Hourani R, Thomassin I, Cortez A, Uzan S, *et al*. Deep pelvic endometriosis: MR imaging for diagnosis and prediction of extension of disease. Radiology 2004;232: 379-89.
6. Engman S, Puello F, Labowitz DA, Ha Lan TT. Rectosigmoid endometriosis. ACG Case Rep J 2023;10:e01120.
7. Chen H, Wang X, Liu Y, Xiong H, Jiang Q. Rectal mucosal endometriosis primarily misinterpreted as adenocarcinoma: A case report and review of literature. Int J Clin Exp Pathol 2015;8:5902-7.
8. Biscaldi E, Ferrero S, Remorgida V, Fulcheri E, Rollandi GA. Rectosigmoid endometriosis with unusual presentation at magnetic resonance imaging. Fertil Steril 2009;91:278-80.
9. Chapron C, Fauconnier A, Dubuisson JB, Barakat H, Vieira M, Bréart G. Deep infiltrating endometriosis: Relation between severity of dysmenorrhea and extent of disease. Hum Reprod Update 2010;16:356-66.
10. Meuleman C, Tomassetti C, D'Hoore A, D'Hooghe T. Clinical outcome after bowel resection for endometriosis. Fertil Steril 2011;96:331-6.

Funding: Nil; Conflicts of interest: Nil.

How to cite this article: Singh SR, Dombale VD, Sakpal RY, Patil AA. Rectosigmoid endometriosis as a diagnostic chameleon mimicking colorectal carcinoma. Indian J Case Reports. 2026;12(5):286-288.