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Deep Infiltrating Endometriosis Mimicking Colorectal Cancer: A Case Report

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Abstract **Case Report**

***Introduction*:** Colonic endometriosis is a rare and often misdiagnosed disease that can mimic colorectal cancer, particularly in women of reproductive age. ***Case Presentation*:** A 41-year-old woman presented with intermittent rectal bleeding and cyclic pelvic pain. Imaging and colonoscopy suggested sigmoid cancer, but histopathology after segmental resection confirmed deep infiltrating endometriosis. ***Conclusion*:** Endometriosis should be considered in the differential diagnosis of colorectal masses in women with cyclical gastrointestinal symptoms to avoid misdiagnosis and unnecessary oncologic surgery.

Keywords: Endometriosis, Colonic Endometriosis, Deep Infiltrating Endometriosis, Colorectal Cancer Mimic, Rectal Bleeding, Diagnostic Challenge.

INTRODUCTION

Endometriosis is a chronic, benign gynecologic disease characterized by the presence of functional endometrial tissue—glands and/or stroma—outside the uterine cavity [1]. Affecting approximately 10% of women of reproductive age, it can develop in various anatomical sites beyond the uterus [2]. Among extragenital locations, the gastrointestinal (GI) tract is the most frequently involved, with intestinal endometriosis reported in up to 37% of affected women [3]. The urinary tract is the second most common extragenital site [4]. Within the bowel, the sigmoid colon and rectum are the most commonly affected regions, followed by the ileocecal area [5]. In this report, we present a case of deep infiltrative sigmoid colon endometriosis that closely mimicked colorectal cancer, highlighting the diagnostic challenges and the importance of considering endometriosis in the differential diagnosis of colorectal masses in women of reproductive age.

CASE REPORT

A 41-year-old nulliparous woman presented with intermittent rectal bleeding lasting for nine months, associated with moderate pelvic pain of cyclical onset, occurring mainly during menstruation. Her menstrual cycles were regular, with menses every 29 days. She reported a history of unexplored primary infertility, despite several unsuccessful attempts to conceive. Clinical examination revealed a patient in good general condition, with stable vital signs. The abdomen was soft and non-distended. Digital rectal examination showed no palpable mass, nodules, or bleeding.

Laboratory tests were unremarkable: hemoglobin at 12.7 g/dL, C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), and tumor markers (CA-125, CEA, CA 19-9) were all within normal limits. Colonoscopy revealed a semi-circular mass with an erythematous surface, causing a significant narrowing of the sigmoid colon lumen. Passage of the colonoscope beyond the stenosis was not possible. Sigmoid colon cancer was highly suspected. However, endoscopic biopsies showed only non-specific chronic inflammation, with no evidence of dysplasia or malignancy. An abdominal CT scan demonstrated a 4 cm thickening of the sigmoid colon wall, associated with a 5 cm hypodense mass within the uterine myometrium.

Given the strong clinical and radiological suspicion of colonic endometriosis, a histopathological re-evaluation of the biopsy specimens was requested. This review revealed the presence of endometrial glands and stroma, leading to a preoperative diagnosis of colonic endometriosis mimicking a malignant tumor.

Due to persistent colonic stenosis and ongoing symptoms, a segmental resection of the sigmoid colon with side-to-side anastomosis was performed. The patient declined to undergo hysterectomy with bilateral salpingo-oophorectomy. Histological analysis of the surgical specimen confirmed the presence of endometrial glands and stroma within the wall of the sigmoid colon, with no evidence of malignancy.

The patient was subsequently referred to a gynecology outpatient clinic for specialized postoperative follow-up.

DISCUSSION

Deep infiltrating endometriosis (DIE) of the bowel, and especially of the rectosigmoid junction, can be difficult to diagnose as it presents with a wide spectrum of mimicry of gastrointestinal diseases and often can be initially mistaken for colorectal carcinoma. Clinically, rectal bleeding, cyclic pelvic pain, constipation, diarrhea, and signs of subocclusion are symptoms, which are often confused with common diseases like the irritable bowel syndrome, the inflammatory bowel disease, or the haemorrhoids [5, 6].

The relapsing and remitting pattern of symptoms of rectal endometriosis in the reproductive age group of women patients should be a red flag with regard to the intestinal endometriosis, particularly if it is cyclical and correlated with the menstrual bleeding [7]. The severity of symptoms and the extent of disease are frequently not correlated, however. As reported in a few series, DIE can be asymptomatic and minimal disease can cause severe clinical symptoms [8].

The rectosigmoid colon is the most frequent site for gatromintestinal endometriotic lesions, which are located on the serosa and muscularis propria in around 90% of the cases [9]. In the rare instance of mucosal engagement, it may be challenging to differentiate from colorectal carcinoma, especially when the endoscopic biopsies are negative [10]. Indeed, colonoscopy is seldom positive for these lesions because they are typically extrinsic or submucosal in location, and when mucosal changes are found, histologic confirmation is often unhelpful owing to limited tissue sampling [11]. Imaging is essential for preoperative diagnosis. Pelvic MRI, especially with an endometriosis protocol, has high sensitivity (94%) for the detection of DIE [1], particularly in the evaluation of rectovaginal septal or rectosigmoid disease. Typical radiologic findings are hypointense fibrotic nodules on T2 and hyperintense areas on T1, indicating hemorrhagic foci. However, specificity is still moderate, demonstrating the necessity of combining expertise from different fields of interpretation. Laparoscopy with histopathological examination continues to be the diagnostic gold standard [5]. DIE histologically features ectopic endometrial glands and stroma that infiltrate a minimum of 5 mm below the peritoneal surface, commonly extending into the subserosa with occasional extension to submucosa or mucosa [12]. Immunohistochemistry (Estrogen Receptor, Progesterone Receptor, CD10) is especially valuable when endoscopic samples are limited, aiding in the distinction from neoplasia [13].

Therapeutic management of intestinal DIE depends on the location, depth, size of the lesion, and symptom burden. Medical management includes hormonal therapies (combined oral contraceptives, GnRH agonists/antagonists, progestins, aromatase inhibitors), primarily aimed at symptom control [14]. However, in cases of significant luminal stenosis (e.g., >50% circumference involvement or lesions >3 cm), medical therapy alone is insufficient, and surgical resection becomes necessary [15]. Surgical options range from conservative shaving or discoid excision to segmental resection. The latter is preferred in cases with transmural involvement and functional obstruction, despite higher morbidity [16]. Postoperative hormone therapy is often recommended to reduce recurrence, which may reach 50% at 5 years without adjuvant treatment [17].

Finally, the potential for misdiagnosis—often as colorectal cancer—warrants vigilance. Several reports have highlighted patients undergoing oncologic resections for presumed malignancy, only to have histological confirmation of benign endometriosis postoperatively [7-10]. This underscores the need for comprehensive preoperative evaluation, including a detailed gynecologic history, targeted imaging, and, when necessary, reanalysis of pathology specimens.

CONCLUSION

Colonic endometriosis represents a true diagnostic challenge and should always be considered among the differential diagnoses in women of reproductive age presenting with nonspecific gastrointestinal symptoms or signs suggestive of malignancy.

REFERENCES

1. Zondervan KT, Becker CM, Missmer SA. Endometriosis. *N Engl J Med.* 2020;382(13):1244–1256.
2. Olive DL, Schwartz LB. Endometriosis. *N Engl J Med.* 1993;328:1759–1769.
3. Antonio M. Bowel endometriosis: a benign disease? *Rev Assoc Med Bras.* 1992;55(5):611–616.
4. Chapron C, Fauconnier A, Vieira M, Barakat H, Dousset B, Pansini V, et al. Surgery for bladder endometriosis: long-term results and concomitant management of associated endometriosis lesions. *Hum Reprod.* 2010;25(4):884–889.
5. Remorgida V, Ferrero S, Fulcheri E, Ragni N, Martin DC. Bowel endometriosis: presentation, diagnosis, and treatment. *Obstet Gynecol Surv.* 2007;62(7):461–470.

6. Clement RH, Parazzini F. Selected food intake and risk of endometriosis. *Hum Reprod.* 2004;19(8):1755–1759.
7. Jiang W, Roma AA, Lai K, Carver P, Xiao SY, Liu X. Endometriosis involving the mucosa of the intestinal tract: clinicopathologic study of 15 cases. *Mod Pathol*. 2013;26(4):556–563.
8. Corona A, Chapron C, Dubuisson JB, Vieira M, Dousset B, Breart G. Endometriosis and irritable bowel syndrome: co-morbidity or misdiagnosis? *BJOG*. 2009;116(1):129.
9. Robertson J, Abbott J. The Evolution of Bowel Endometriosis Surgery. *AGES ASM Conference Presentation*. 2023.
10. Kelly P, McCluggage WG, Gardiner KR, Loughrey MB. Intestinal endometriosis morphologically mimicking colonic adenocarcinoma. *Histopathology*. 2008;52(4):460–462.
11. Jinushi M, Arakawa A, Matsumoto T, Kumakiri J, Kikuchi I. Histopathological analysis of intestinal endometriosis after laparoscopic low anterior resection. *J Minim Invasive Gynecol.* 2011;18(6):754–759.
12. Ferrero S, Camerini G, Maggiore ULR, Venturini PL, Biscaldi E, Remorgida V. Diagnosis of bowel endometriosis: a review. *Int J Womens Health.* 2010;2:163–172.
13. Song SJ, McGrath CM, Yu GH. Fine-needle aspiration cytology of endometriosis: a diagnostic pitfall. *Diagn Cytopathol*. 2017;45(5):359–363.
14. Mahutte NG, Arici A. Endometriosis and assisted reproductive technologies: are outcomes affected? *Curr Opin Obstet Gynecol.* 2001;13(3):275–279.
15. Vercellini P, Frattaruolo MP, Rosati R, Dridi D, Roberto A, Mosconi P, et al. Medical treatment or surgery for colorectal endometriosis? Results of a shared decision-making approach. *Hum Reprod.* 2018;33(2):202–211.
16. Cho A, Park CM. Minimally invasive surgery for deep endometriosis. *Obstet Gynecol Sci.* 2024;67(1):49–57.
17. European Society of Human Reproduction and Embryology (ESHRE). ESHRE Guideline: Endometriosis. 2022. Available at: https://www.eshre.eu/guideline/endometriosis