



# Sigmoid Colon Endometriosis Case Report: A Rare Large Bowel Entity

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## Abstract

*Endometriosis refers to the extrauterine presentation of ectopic functional uterine tissue. It is a common gynaecological condition in reproductive females. Its clinical presentation involves irregular menstrual cycles, pelvic pain, and infertility. However, it is highly unusual for Endometriosis to present as a large bowel mass with symptoms of obstruction. Here, we present a 41-year-old female with symptoms of chronic constipation and abdominal discomfort due to an endometrial colonic mass.*

## Introduction

Endometriosis refers to ectopic uterine glands and stroma in the adnexa and pelvic region [1]. The prevalence of endometrial tissue in reproductive females ranges from 2–22%; however, this incidence is increased in females with dysmenorrhea and subfertility, ranging from 40–60% and 20–40%, respectively [2]. Large bowel masses caused by various aetiologies are among the most common presentations requiring surgical intervention. However, this presentation is rare in Endometriosis. This case report describes the course and management of a 41-year-old female diagnosed with a sizeable endometriotic mass in the sigmoid colon.

## Methods

A 41-year-old female was referred to our surgical casualty complaining of abdominal pain and rectal bleeding post-colonoscopy. The patient had a history of chronic constipation and was referred to the gastroenterology team. A colonoscopy was performed, which revealed a 7 cm sigmoid mass 28 cm from the anal verge. A biopsy was taken; however, the procedure was complicated and aborted due to bleeding and a suspected bowel perforation. The on-call surgical team were informed, and the patient was admitted to the surgical ward. The patient was hemodynamically stable upon admission, with minimal tenderness in the left lower quadrant. All laboratory investigations appeared unremarkable. Urgent computed tomography (CT) scans

with intravenous and oral contrast were ordered, which revealed a short sigmoid colon segment with a nodular eccentric mass lesion and edge shouldering, measuring approximately 4 cm in length and 26 mm in width. The mass was observed to be causing luminal narrowing. However, there was no evidence of proximal significant colonic dilatation. The mass was associated with mild circumferential mural thickening of the adjacent sigmoid colon segments. There was no colonic perforation or contrast leakage (Figures 1 & 2). The patient was admitted to the surgical ward for further observation. The histopathology results from the colonoscopy revealed morphological and immune-profile findings of Endometriosis, with no epithelium dysplasia or malignancies identified. The patient was counselled regarding these findings and was advised to undergo an elective laparoscopic left hemicolectomy. The patient consented to this procedure following anaesthesiology clearance.

## Intra-operative findings

A sizable sigmoid mass was identified, and laparoscopic left-hemicolectomy was performed using end-to-end anastomosis via circular staplers. Drains were placed at the anastomosis site and pelvis.

## Post-operative findings

The patient tolerated the procedure well, with no post-operative events. She was placed on broad-spectrum antibiotics for five days and discharged after resuming a regular diet and demonstrating typical bowel motions.

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**Figure 1.** Coronal view CT scan showing an infiltrating sigmoid endometrial mass.

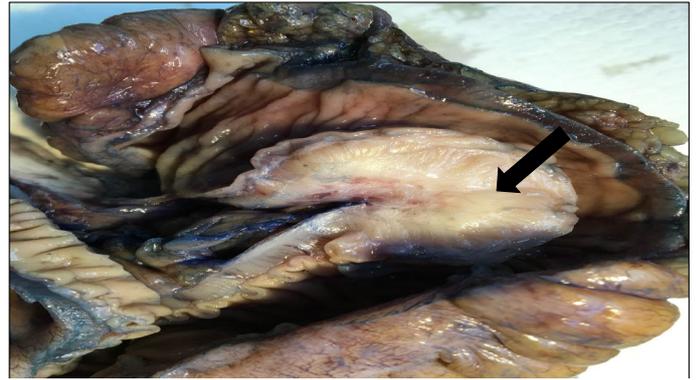


**Figure 2.** Axial view CT-scan shows a nearly obstructing sigmoid endometrial mass.

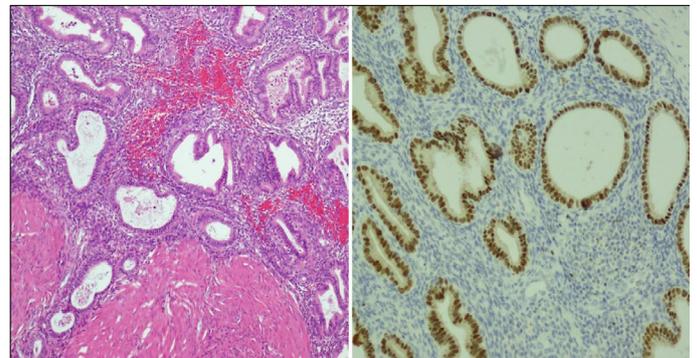
The first outpatient clinic visit was 14 days after discharge. The patient reported no complaints, and the wounds were clean. Histopathology of the resected specimen revealed sigmoid colon endometriosis with two doughnuts. In line with the previous histopathology biopsy result, the margins were free, and 14 reactive lymph nodes were noted (Figures 3 & 4).

### Discussion

Endometriosis is defined as the implantation of endometrium outside the uterus. Endometriosis is thought to occur following retrograde menstruation [3] potentially. It affects approximately 10–20% of fertile females, with incidence peaking between the ages of 29–39 [4]. The gastrointestinal tract is involved in 3–37% of women with Endometriosis [5]; it was first described in the 1950s [6]. There are several theories



**Figure 3.** A gross examination of the sigmoid revealed a polypoid endometriotic lesion of size 3.0 x 2.5 x 2.5 cm on the opening of the sigmoid colon, having tiny haemorrhagic specks on the cut section.



**Figure 4.** Microscopic images revealing endometrial glands and stroma among the sigmoid smooth muscle with high positive immunization marker.

regarding how Endometriosis develops, including retrograde menstruation and vascular dissemination. However, these theories have little associated evidence. Endometriosis can occur in the entire abdominal cavity and can be categorized into three groups: peritoneal, ovarian, and infiltrating Endometriosis [7]. Approximately 5–12% of females with Endometriosis develop infiltrating ectopic tissues in the recto-sigmoid leading to masses or narrowing. The mechanism behind this is hypothesized to involve the response of smooth muscle in the bowel to inflammation caused by ectopic endometrial stroma, leading to metaplasia, hyperplasia, and muscle fibrosis, which consequently causes narrowing and obstruction [8].

The diagnosis of intestinal Endometriosis can be challenging, as numerous differential diagnoses are associated with its presentation, such as neoplastic mass, lymphoma, diverticular disease, and inflammatory bowel disease. Patients can present with non-specific symptoms, such as constipation, diarrhoea, dysmenorrhoea, pain during defecation, and intermittent rectal bleeding during menstruation [9]. Furthermore, physical examination provides insufficient evidence to indicate a diagnosis. Transvaginal ultrasound is a highly reliable diagnostic tool, demonstrating a sensitivity of 91% and specificity of 96% [10]. Using the Doppler technique,

transvaginal ultrasounds can detect reduced blood flow to the endometrioma. CT scans and magnetic resonance imaging (MRI) can reveal intestinal wall thickening and luminal narrowing; however, for large infiltrating deep masses, MRI with rectal contrast is the superior imaging technique [11]. Endometriosis management depends on its presentation and severity. For small deposits, medical management using non-steroid anti-inflammatory drugs (NSAIDs) and oral contraceptives is a viable option to reduce the deposit size and symptoms [12].

Nevertheless, larger masses with an obstructive presentation similar to our case report require surgical intervention. Several techniques have been described for this purpose. However, laparoscopic resection remains the gold standard except for extensive adhesions requiring laparotomy with primary anastomosis [13]. Few complications associated with surgery were mentioned in the literature, such as rectovaginal fistulae and anastomotic leakage, which have an incidence of 2-8% and 3%, respectively [14]. The risk of recurrence after intervention for infiltrating Endometriosis varies, and it is not easy to assess because of different studies and follow-ups duration. However, most of the reviewers and authors conclude it is approximately 5 -25% [1,15]; surprisingly, it is not influenced by the radicality of the resection [16].

### Conclusion

Endometriosis is a common presentation in reproductive-age women. Nevertheless, it is rarely presented as a colonic mass. This presentation can offer a formidable challenge to physicians and surgeons; thus, it is essential to report such cases to help future doctors consider Endometriosis as a differential diagnosis in women of productive age with gastrointestinal symptoms.

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