

# Endometriosis of the Sigmoid Colon Mimicking Malignant Lesion

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## Abstract

Endometriosis is defined as the presence of endometrial tissue outside the uterus. It is a benign pathology involving 15% of women of reproductive age. The sigmoid site represents 7% of endometriosis but it is the most frequent area in the digestive tract. We report two cases of colonic endometriosis in which the initial diagnosis suspected a malignant disease. Respectively, the patients were 31 and 48 years old. The first patient complained about abdominal pain with symptoms of intestinal obstruction and was classified after radiological examination as an intrasigmoid tumor with bladder adhesion. The second patient was undergone for a radiological examination because of a bowel obstruction syndrom and a mass in the sigmoid colon was suspected. In both cases, sigmoid colon resection was performed and histological diagnosis was sigmoid endometriosis. Sigmoid endometriosis is rarely diagnosed before surgical excision. Suspicious bowel obstruction and malignant origin lead to large surgical excision. Histological examination is important to establish the diagnosis.

## Keywords

Endometrial Mucosa, Endometriosis, Sigmoid Endometriosis

## 1. Introduction

Endometriosis is defined as the presence of endometrial tissue (glands and stroma) outside the uterine cavity and musculature [1]. It was first described by Rokitansky Kitansky in 1860 [2]. Worldwide, around 15% of women between 15 and 49 are affected by this pathology [3]. The most common sites are the ovaries, broad ligament, bladder [4]. The colon is a less frequent location (7%) [5]. Clinical features may suggest a mass obstructing the colonic lumen, mimicking a

malignant tumor. We report two cases of sigmoid endometriosis misdiagnosed as a sigmoid tumor.

## 2. Cases

### Case n° 1

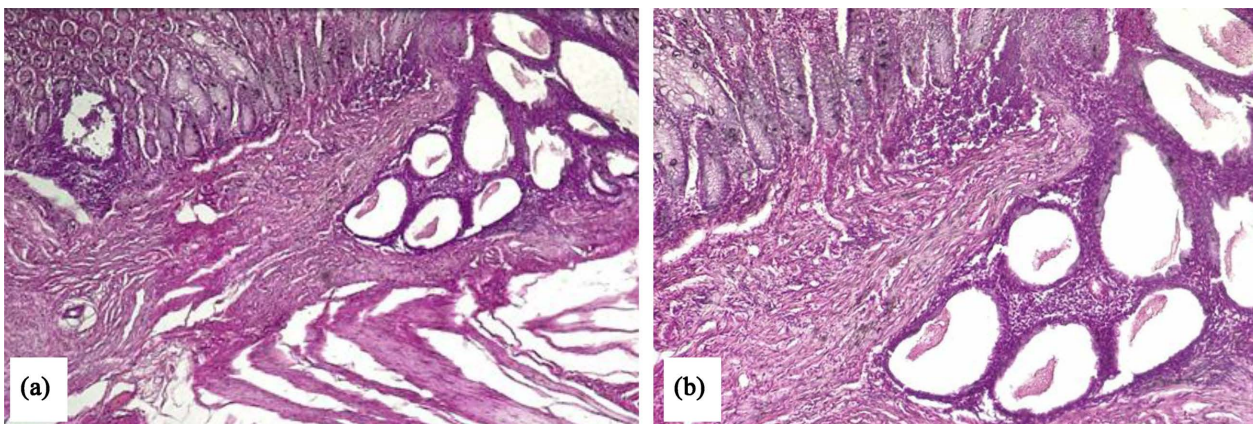
It was Mrs BA., 48 years old, who complained for abdominal pain. The clinical examination revealed a distended and tender abdomen. Abdominal radiography revealed intestinal obstruction, was suggestive a sigmoid tumor origin. Laparoscopy revealed a tumor and colonic distension, from the cecum to the sigmoid. The ovaries, fallopian tubes, and uterus appeared to be normal, and there were no other intra-abdominal lesion. A sigmoid resection was performed with suspicious of colon cancer. On gross examination, the specimen was presented an infiltrative and obstructive tumor measuring 4 cm. On histological examination, the mucosa has normal features. There were numerous glands endometrial-type, without atypia, surrounded by an endometrial stroma in the submucosa and muscularis (**Figure 1**). The diagnosis was sigmoid endometriosis.

The patient was in good general condition after 6 months of control, with no notion of recurrence.

### Case n° 2

This was a 31-year-old woman with abdominal pain and constipation. Clinical examination revealed a very tender pelvic mass. She was undergone for abdominal radiography and it suspected a tumor partially obstructing the sigmoid lumen with sigmoid colon and bladder adhesion. Then the patient underwent to sigmoid and bladder resection. On gross examination, the colonic segment contains a partially obstructive mass, measuring 6 cm. Microscopic sections revealed a normal structure of the mucosa. The muscularis and the serosa were infiltrated by endometrial-like glands lined with columnar cells without atypia and surrounded by endometrial stroma. The histological diagnosis was sigmoid endometriosis.

The patient had a symptom free and no complication at the time of follow-up evaluation.



Source: Departement of Pathology at JRA Hospital.

**Figure 1.** Sigmoid endometriosis HE  $\times 40$  (a),  $\times 100$  (b).

### 3. Discussion

The pelvic region is the most common site of endometriosis and the ovary is involved in 54.9% of cases [6] [7]. Endometriosis of the digestive tract represents 3% to 37% of cases [8] and recto-sigmoid site represents 50% - 90% [9].

Several hypotheses have been put forward to explain the development of this ectopic endometrial tissue, the most common being the so-called implantation theory: this is trans-tubal reflux or retrograde menstruation in the abdominal cavity [10].

Clinical presentation is only observed in one third of patients with sigmoid endometriosis and it depends on the extent and site of involvement. It can mimic other intestinal lesions and the diagnosis can be difficult due to this lack of pathognomonic clinical features [1] [5] [11]. Symptoms include nausea, constipation, painful defecation, rectal bleeding, lower abdominal and pelvic pain [1] [6]. Bowel obstruction complicates sigmoid endometriosis in less than 10% [12], as was observed in our patients.

Some patients presented cyclic symptoms occurring at the time of menstruation [1] but according to Selim Sassi *et al.* [12], these patients represented only about 40% of cases.

On radiological examination, the appearances are nonspecific and may be mistaken for malignant lesions. The diagnosis of colonic endometriosis remains difficult to establish preoperatively and sometimes involves extensive resection of the suspected colonic segment [1], which was the case with our patients.

Histological examination is the key for the diagnosis of endometriosis [7]. The diagnosis was made by the presence of an endometrial mucosa in the sigmoid wall, contains endometrial-type glands of variable sizes and lined by cells without atypia. These glands are surrounded by endometrial stroma. The endometrial tissue can invade the various tunics but it generally concerns the serosa and the muscularis. The mucosa is often intact [1] [6] [9]. Several mechanisms can explain the occurrence of intestinal obstruction. In our cases, it may be due to fibrosis and wall thickening following endometriotic implants in the intestinal wall [8]. Invasion of the serosa by the endometrial tissue can lead to an inflammatory reaction and fibrosis causing adhesion to neighboring organs [9] which may explain sigmoid colon and bladder adhesion for one of our patients.

After surgical excision, the recurrence rate depends on the completely resected or not of the lesion, and when the ovaries are preserved, the recurrence rate is 62% [13] [14].

### 4. Conclusion

The sigmoid colon is a common location for endometriosis of the digestive tract. Intestinal obstruction is less common. The bowel endometriosis is difficult to be diagnosed pre-operatively due to the absence of pathognomonic features on clinical and radiological examination. It can be mimic a malignant lesion. Histological examination is essential for the diagnosis.

## Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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