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Rectal obstruction due to endometriosis: A case report and review of the Japanese literature

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ABSTRACT

INTRODUCTION: Colorectal obstructive endometriosis is relatively rare in Japan and its differentiation from malignancy is often difficult. We report a case of rectal obstructive endometriosis.
PRESENTATION OF CASE: A 37-year-old woman was referred to our hospital with a suspected ileus. Her chief symptoms were left lower abdominal pain and vomiting. Colonoscopy showed an intraluminal mass of redness in the upper rectum. A proctectomy was performed because of the bowel obstruction. The rectum was filled with an intraluminal mass measuring 5 cm × 4 cm, and endometriosis was diagnosed pathologically.
DISCUSSION: A preoperative diagnosis of colorectal obstructive endometriosis is often difficult because of the lack of definite diagnostic, clinical, sonographic, or radiological findings that are characteristic of this disease. Medical treatment is not always effective for colorectal obstructive endometriosis, and surgery is often performed.
CONCLUSION: Colorectal obstructive endometriosis should be considered as a differential diagnosis in cases of various gastrointestinal symptoms in women who are of reproductive age.

1. Introduction

Bowel endometriosis occurs in approximately 10% of all cases of endometriosis[1,2] and usually arises in the rectum and sigmoid colon in 80% of these.[3] It is usually asymptomatic, but may cause non-specific symptoms, such as abdominal colic-like pain, nausea, vomiting, and general symptoms of intestinal obstruction.[4,5] Circumferential endometriosis of the rectum should be differentiated from inflammatory or malignant diseases,[6] but because obstructive bowel endometriosis is often difficult to diagnose preoperatively, postoperative histopathological examination may be used to establish a definitive diagnosis. Obstructive endometriosis involving the colon or rectum is relatively rare, and a search on the Ichushi Web, a Japanese medical database, revealed that only 49 Japanese patients were diagnosed as having colorectal obstructive endometriosis during the 16 years from 1995 to 2010 (Table 1). We report a case of rectal obstructive endometriosis.

2. Presentation of case

A 37-year-old Japanese woman was referred to our hospital on February, 2011 with a suspected ileus. During the 7 days before admission, she had experienced left lower abdominal pain and vomiting. She was 153 cm in height and weighed 46 kg. Physical examination revealed left lower abdominal tenderness. Her body temperature was 36.5 °C, white blood cell count was 16,900/μL, and cancer antigen 125 level was 70.8 U/mL. She had a history of an endometriosis at 36 years of age.

Abdominal supine X-ray showed dilatation of large bowel segments (Fig. 1). A contrast-enhanced abdominal computed tomography scan revealed a swelling of the rectal wall and colonic dilatation, and colonoscopy showed an intraluminal mass of redness in the upper rectum, which was peculiarly shaped (Fig. 2) and the scope could not pass through the mass. Endoscopic biopsies were taken and histopathological examination revealed non-specific inflammatory changes. It was thought that this mass had caused the colorectal obstruction, but this one could not be diagnosed as being differentiated from benign or malignant diseases.

A proctectomy was performed to relieve the bowel obstruction after informed consent was obtained. Macroscopically, the mucosa

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Table 1
Japanese cases of colorectal obstructive endometriosis from 1995 to 2010 based on a search of Ichushi Web (Japanese database).

Case numbers	49
Age (years) (range)	39.6 ± 6.3 (18–54)
Chief complaint	
Abdominal pain	36 (42)
Abdominal fullness	17 (20)
Vomiting	17 (20)
Constipation	8 (9.3)
Hematochezia	2 (2.3)
Others	6 (6.4)
CA125 (U/mL) (range)	135.8 ± 108.6 (13.3–323)
Regions of obstruction	
Rectum	19 (39)
Sigmoid colon	18 (37)
Cecum	5 (10)
Rectosigmoid colon	4 (8)
Descending colon	2 (4)
Ascending colon	1 (2)
Hormone therapy before operation	15 (31)
Diagnosis of pre-operation	
Endometriosis	25 (51)
Colorectal cancer	19 (39)
Ovarian tumor	3 (6)
Others	2 (4)
Type of surgery	
Proctectomy	16 (33)
Sigmoidectomy	13 (27)
Colostomy	6 (12)
Cecectomy	5 (10)
Hartmann op.	4 (8)
Right hemi-colectomy	2 (4)
Others	3 (6)
Endometrial regions excluding colorectum	
Ovary	9 (39)
Uterus	5 (21)
Peritoneum	3 (13)
Ureter	2 (9)
Lymph node	2 (9)
Others	2 (9)
Pathology post-operation	
Colorectal endometriosis	47 (96)
Endometrioid adenocarcinoma	2 (4)
Prognosis (range)	
Dead	1 (638 days) (due to PC)
Alive	48 (217.8 ± 354.1; 12–1460 days)

Data on age, CA125 and prognosis are demonstrated as mean ± SD; numbers in parenthesis on chief complaint, regions of obstruction, hormone therapy before operation, diagnosis of pre-operation, type of surgery, endometrial regions excluding colorectum and pathology post-operation are shown as percentage; PC, peritoneal carcinomatosis.

of the resected specimen was intact. The rectum was filled with an intraluminal mass measuring 5 cm × 4 cm (Fig. 3a and b), specimens of which demonstrated near complete luminal obstruction at the site of the mass and extraluminal fibrotic adhesion (Fig. 4).

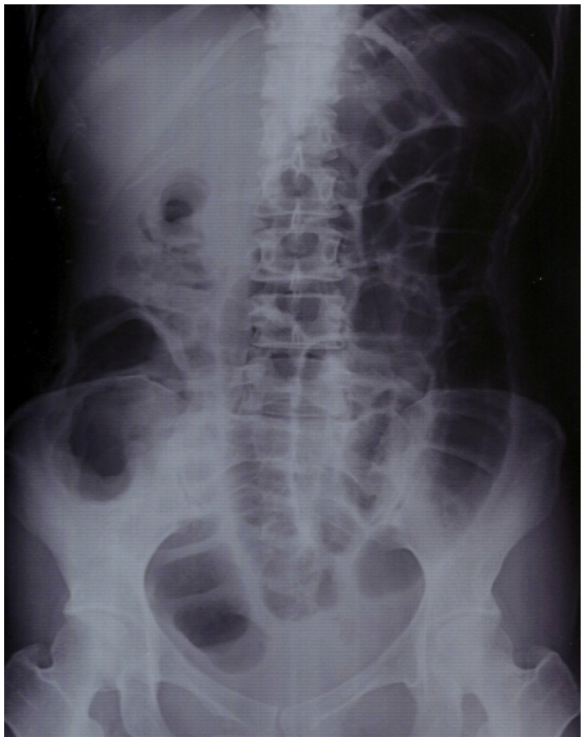

Fig. 1. Abdominal supine X-ray showed dilatation of large bowel segments.

Microscopic examination revealed that the rectal muscularis propia and submucosa included endometrial glands and stroma, and a diagnosis of rectal endometriosis was made in the absence of malignancy (Fig. 5).

She left the hospital 33 days after surgery and was doing well at the 16 months follow up with no recurrence of bowel endometriosis.

3. Discussion

Endometriosis was first described as the presence of functioning endometrial glands and stroma outside the uterine cavity.[7,8] Endometriosis occurs in 6–10% of the general female population, who are of reproductive age and affects 50–60% of women and teenage girls causing pelvic pain and infertility.[9,10] Abdominal pain is the most frequent symptom in Japanese patients with colorectal obstructive endometriosis (Table 1). Bowel endometriosis occurs in 10% of all cases of endometriosis,[1,2] and affects the ileum, appendix, sigmoid colon, and rectum, but

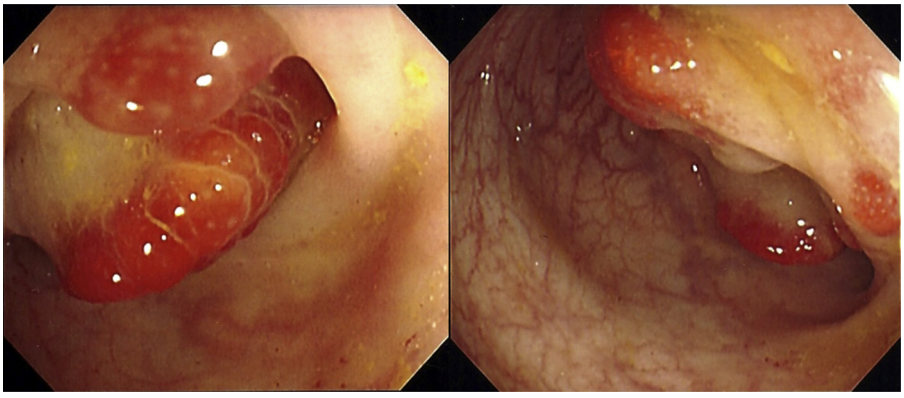

Fig. 2. Colonoscopy showed a red, intraluminal mass in the upper rectum.