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[症例報告]Endometriosis of the sigmoid colon mimicking infiltrating carcinoma : A case report

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Endometriosis of the sigmoid colon mimicking infiltrating carcinoma : A case report

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Key Words : sigmoid colon, endometriosis, colonic stricture

Abstract

A case of endometriosis of the sigmoid colon in a 25-year-old woman is reported herein. She had had occasional episodes of lower abdominal colicky pain a few days prior to her menstruation for the past seven years. Barium enema studies revealed irregular stricture of the sigmoid colon with the preserved mucosa closely simulating infiltrating carcinoma. At operation, the involved segment of the sigmoid colon was thickened and indurated, and adherent to the left fallopian tube and the uterus. Reddish brown, mottled nodules were found on the left pelvic peritoneum. The involved segment of the sigmoid colon was stenosed with thickening and kinking of the wall. Histologically, the endometrial tissues were scattered within the wall and the mesentery except the mucosa. These endometrial tissues were attended by thickening and kinking of the wall.

The patient has been doing well without any evidence of dysmenorrhea since surgery.

Introduction

Endometriosis is one of the most common gynecologic disorders seen in the reproductive age group. The pelvic organs, such as the sigmoid colon and rectum by their proximity to the genital organs are usually affected¹⁾. The intestinal involvement may lead to obstruction or hemorrhage which may be difficult to distinguish from malignancy or inflammation²⁾. Recently, we have experienced a case of endometriosis of the sigmoid colon mimicking infiltrating carcinoma at barium enema examination that has been successfully treated. The rarity and diagnostic difficulty of the disease has prompted us to describe the present case.

Case Report

A 25-year-old woman, married and nulliparous, was referred to the University Hospital on August 7, 1985 for further evaluation of stricture of the sigmoid colon. The patient complained of occasional episodes of lower abdominal colicky pain a few days prior to her menstruation for the past seven years. These episodes were usually accompanied by nausea

and vomiting, and a distention of the lower abdomen. She had been several times hospitalized and her symptoms resolved spontaneously in a few days. About two years ago, she had an episode of the same symptoms which were so severe that she was admitted to the hospital. At that time, she was diagnosed to have pelvic endometriosis and a hormonal therapy was started. One year prior to admission, she noticed that her stool was small in caliber and coffee brown in color. Six months later, she noticed passages of blood stained stool. Barium enema studies showed stenosis of the sigmoid colon (Fig.1, left).

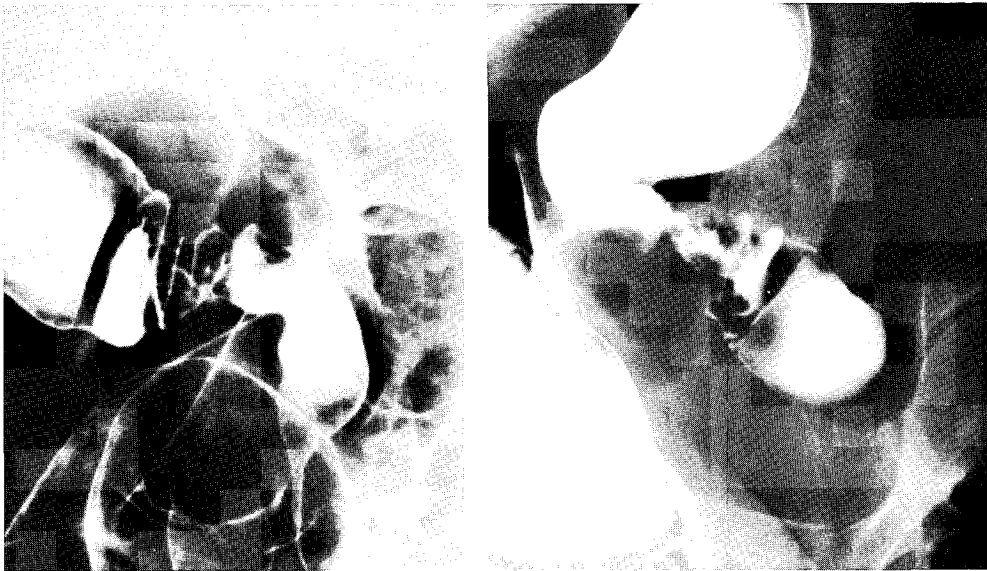


Fig. 1 (Left). Initial barium enema radiograph showing moderate stricture and relatively smooth mucosal surface of the sigmoid colon. (Right). Radiograph taken one and half months later showing more severe stricture and irregular mucosal surface.

Her obstetric history revealed that she had menarche at age 11. Her menstrual cycle was regular with 28 days duration and the menstrual period usually lasted for 5 to 6 days. Her menstrual blood flow was hypermenorrhagic with severe lower abdominal pain which was relieved by bed rest. Her past and family history was not contributory.

On admission, the patient was afebrile. Physical examination revealed mild tenderness over the hypogastric region but no mass was palpable. Bimanual examination disclosed diffuse resistance and a cord-like strand in the posterior surface of the the lower uterine wall. The adnexae and other genital organs did not show any apparent abnormality.

Laboratory Findings

Complete laboratory examination was done, but all laboratory findings were within normal limits except that the only pertinent finding was positive fecal occult blood.

Barium Enema Examination

Barium enema studies showed marked, irregular stricture of the sigmoid colon with the

relatively-well preserved mucosa as compared to the previous radiograph (Fig.1, right).

Other ancillary diagnostic procedures such as ultrasonography and computed tomography did not reveal any significant findings. Fiberoptic colonoscopy showed stricture of the sigmoid colon with the intact mucosa about 25 cm. from the anal verge.

Operative Procedures

Operation was carried out on August 27, with a possible diagnosis of endometriosis of the sigmoid colon. At operation, the involved segment of the sigmoid colon, 5 cm. long, was thickened and indurated, and adherent to the left fallopian tube and the posterior surface of the uterus. Several reddish brown, mottled nodules were found on the left pelvic peritoneal surface and the mesentery. These nodules are diagnostic of endometriosis. Subsequently, with a definite diagnosis of endometriosis involving the colon, the patient underwent partial resection of the sigmoid colon and the left ovary.

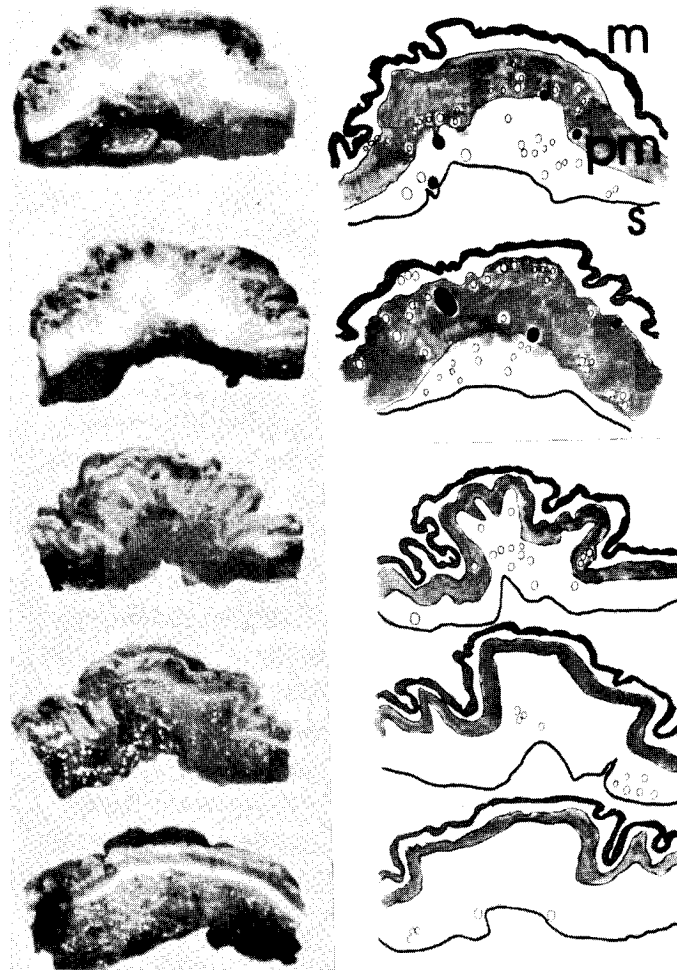


Fig. 2 (Left). Macrophotograph of the sections of the involved sigmoid colon showing thickening (upper) and kinking(lower) of the wall. (Right). Schematic illustration of alteration of the wall in relation with distribution of the endometrial tissue within the wall(open circles).

Pathologic Findings

The involved segment of the sigmoid colon was fibrous and indurated. The lumen was narrowed with thickening and kinking of the wall. The lesion was 5 cm. in length; the proximal lesion, 2 cm. long, showed thickening of the wall while the distal, lesion showed kinking of the wall without thickening (Fig. 2, left). There were multiple microcysts with or without blood within thickened the wall. The mucosa was not remarkable.

Microscopically, the endometrial tissues varying in size and shape were scattered throughout the wall except for the mucosal layer (Fig. 3). Within the muscular and subserosal layer these aberrant endometrial tissues were attended by hyperplasia of muscular and connective tissue. On the other hand, the kinking portion of the wall revealed the endometrial tissues only within the subserosal layer (Fig. 2, left). One of the sections showed endometrial gland within the lymphatic channel (Fig. 4).

The patient has been doing well without any episode of dysmenorrhea since surgery.

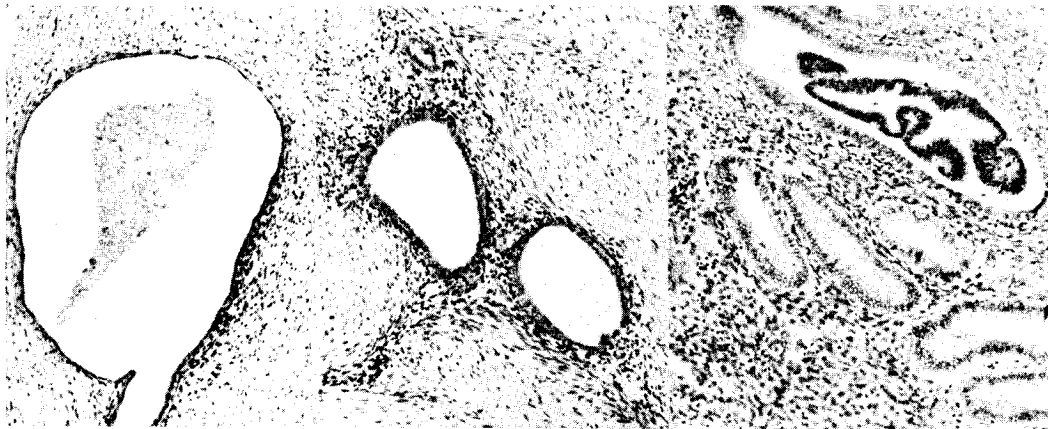


Fig. 3 Microphotographs showing the endometrial tissues varying in size and shape within the wall (HE, $\times 200$), cystic gland (left), tubular glands with scanty stroma (middle) and hyperplastic glands with rich stroma(right).

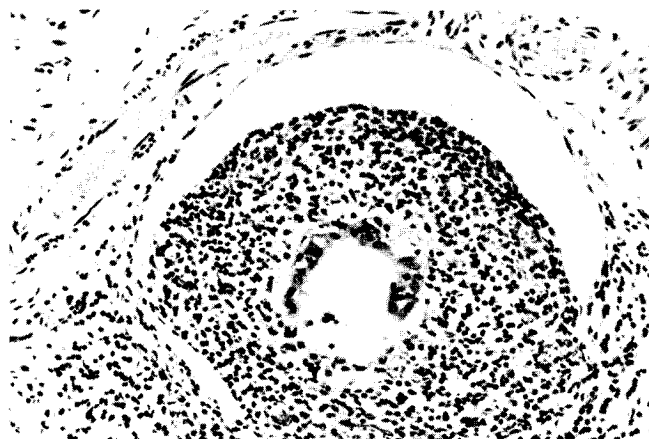


Fig. 4 Microphotograph of an endometrial gland within the lymphatic channel (HE, $\times 200$).

Discussion

The ectopic endometrial tissue is usually found in the pelvis in close relation with the reproductive organs, and is generally referred to as pelvic endometriosis^{1),2)}. Involvement of the intestine is termed enteric endometriosis. Several collective reports have described involvement of the intestine not only confined to the pelvic cavity such as the rectum and sigmoid colon but also in the peritoneal cavity such as the cecum, appendix, ileum and jejunum¹⁾⁻⁵⁾.

Endometriosis is seen almost exclusively in women of child-bearing age. According to Corman²⁾, in 75% it was usually seen in ages between 20 and 40 years and in the remaining 25% it occurred up to the age of menopause. Okada, et al³⁾, based on the collective review in Japan, reported that the age distribution was 23-53 years old with an average age of 39. The peak age was 36-45 years old. Although there is slight difference in the distribution of age group, the general consensus is that it affects mainly the menstruating women with active ovarian function. The incidence of the bowel involvement under discussion has been reported to be 3 to 37%⁴⁾. The incidence of enteric endometriosis varies with different authors. In Japan⁵⁾, the incidence of the involvement of the rectum and colon was 14 % and of the small intestine, 1.3 %. Other reports have described its rarity⁶⁾, but the occurrence is believed to be not as uncommon as it was thought previously.

With regards to the cause of endometriosis, several theories^{1),2)} have been proposed: (1) theory of tubal regurgitation and implantation, (2) metastatic dissemination theory or benign metastatic theory, (3) serosal theory or coelomic metaplasia theory, and others. None of them has been proven satisfactorily. In our case, endometrial tissue was found within the lymphatic channel surrounded by the lymphocytes as shown in Fig. 4. This seems to suggest that dissemination of the endometrial cells may be through the lymphatic channel as proposed by Halban in his metastatic dissemination theory⁷⁾.

The most common symptoms of enteric endometriosis is considered as a recurrent, colicky lower abdominal pain. Involvement of the rectum and sigmoid colon may produce stenosis or obstruction causing constipation, tenesmus and abdominal distention. Rectal bleeding or bloody stool has been considered as an uncommon clinical feature. When present, it is usually due to ischemic mucosal injury or infiltration of the mucosa by the endometrial tissue. In general, the patient with enteric endometriosis is preceded by a long standing pelvic endometriosis, and a gynecologic history reveals dysmenorrhea, infertility or low parity as seen in our case. Internal examination discloses findings of recto-uterine induration or nodularity in the posterior surface of the uterus.

Concerning diagnosis of enteric endometriosis, there is no pathognomonic feature¹⁾. The lesion at barium enema studies often presents as a filling defect or a stenosis. The mucosa is occasionally intact and may show irregularity at times as seen in our case. The initial barium enema studies in our case showed relatively smooth mucosal surface and moderate stricture of the sigmoid colon. The second, one and half months later revealed apparent irregularity of the mucosal surface and severe stricture closely simulating infiltrating carcinoma. The reason for such stricture to occur is generally believed that the implanted endometrial tissues on the intestinal serosa and within the intestinal wall results in reactive fibrosis and smooth

muscle hyperplasia under the influence of the hormone during menstruation. Thus, the stricture of the intestine progresses with each cycle of menstruation^{2),5)}. The more involvement of the muscular layer by the endometrial tissues, the more hyperplasia of the muscular layer as shown by the illustration in Fig.4. On the other hand, involvement of the subserosal layer alone may result in kinking of the intestinal wall causing an irregular stricture.

The treatment of enteric endometriosis is usually divided into medical and surgical⁹⁾, but each case needs individual evaluation. In our case, hormonal therapy was performed at the start, but the stricture of the sigmoid colon was not resolved. Therefore, the patient was operated on. Although exceptional cases have been reported^{1),2)}, it must be emphasized that once a symptom of obstruction has occurred, no amount of hormonal therapy can resolve the stricture, and surgical treatment should be instituted. The extent of the surgical intervention should depend upon the patient's menstrual status, age and future pregnancy. Consultation with a gynecologist must be considered.

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