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Case Report

Sigmoid Colon Endometriosis Presenting as Colon Obstruction Due to Stricture - A Case Report

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ABSTRACT

Endometriosis is an estrogen dependent inflammatory disease characterized by the presence of functional endometrial tissue outside the uterus. Endometriosis, a relatively common condition, rarely involves the bowel and present as a large-bowel stricture with intestinal obstruction. We report the case of young female with sigmoid colon endometriosis presenting as a colon obstruction with stricture. The definitive diagnosis of endometriosis can be confirmed by histopathological examination only

Key words: Endometriosis, colon obstruction, stricture, cancer

INTRODUCTION

Endometriosis is defined as the presence of functional endometrial tissue outside mucosal lining of the uterus which causes symptoms including pelvic pain, dysmenorrhoea, infertility and constipation. Endometriosis involving the intestines accounts for 5% of premenopausal women and 70% patients present with large bowel obstruction. [(1)] Intestinal obstruction occurs secondary to cancer, volvulus or diverticular diseases in 90% of patients and 10% of patients with other conditions like adhesions, ulcerative colitis, radiation enteritis, inflammatory strictures, foreign bodies, obstructed hernia and endometriosis. [(2)]

Gastrointestinal endometriosis is reported in 3 to 37% of the individuals and most common site was recto sigmoid colon (72%) followed by small intestine (7%), caecum (3.6%), and appendix. [(3-5)] Endometriosis can be intra or extra peritoneal depending on the location of the endometrial tissue. Gastrointestinal tract is the most common site of extra pelvic endometriosis. [(3)] Common sites of intra peritoneal disease involvement are ovaries, uterine ligaments, fallopian tubes and pouch of Douglas. The differential diagnosis of colonic endometriosis form other intestinal diseases of colon is difficult due to lack of specific symptoms and poor diagnostic yield of colonoscopy. We report the case of 22 years women who presented with intestinal obstruction due to stricture secondary to sigmoid colon endometriosis.

CASE REPORT

A 22 year old female patient admitted to the surgical gastroenterology department with complaints of vomiting, constipation and lower abdominal pain since 2 months. She had normal, regular menses with no history of dyspareunia, dysmenorrhea, and rectal bleeding. On physical examination revealed mild lower abdominal tenderness. Hematological

parameters, liver function tests, urea, creatine, electrolytes all were within normal limits. Clinically diagnosed as intestinal obstruction. Differential diagnosis considered is carcinoma of colon. A segment of sigmoid colon which measured 20 cm long send to pathology department in10% formalin for histopathological examination. Grossly it shows segment of intestine measuring 20 cm. Cut section of intestine segment shows stricture identified measuring 3 cm, which is 2 cm away from nearest resected margin. Distal part of intestine is dilated. Microscopic examinations of stricture site of colon reveal mucosa lined by columnar epithelium, lamina propria shows, benign mucosal glands, chronic mononuclear inflammatory cell collection. Submucosa and muscularis shows endometrial glands with decidualized endometrial stromal tissue noticed, transmural collections of chronic mononuclear cells and congested blood vessels. (Fig-1), (Fig-2)

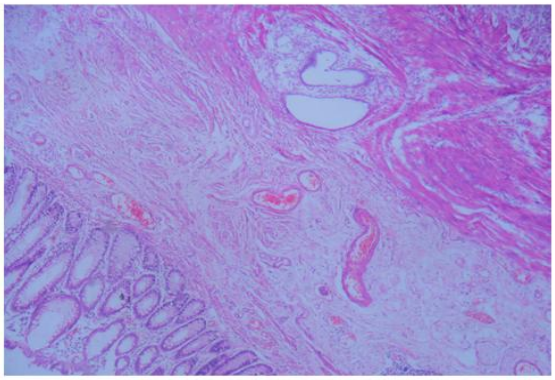

Fig.1: Microscopic examination (H & E Stain) (400x) showsmucosal glands and submucosa, muscularis shows endometrial glands endometrial stroma.

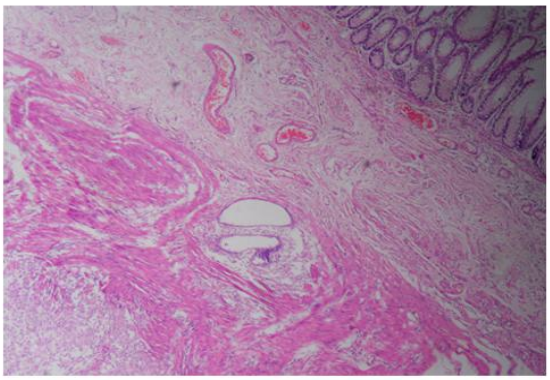

Fig.2: Microscopic examination (H & E Stain) showsmucosal glands and submucosa muscularis shows endometrial glands decidualized endometrial stroma.

DISCUSSION

Gastrointestinal endometriosis was first described by Sampson in 1922. [6] Gastrointestinal endometriosis may present wit, rectal bleeding, bowel obstruction and rarely with malignant transformation or perforation. [7] The clinical symptoms of presentation asymptomatic to variable, depending on site, abdominal pain, constipation, diarrhea, tenesmus, painful bowel movements and hematochezia. [8] Colonic involvement had been reported 14-25% of patients with endometriosis. Endometrial implants have also reported in other sites like urinary bladder, skin, umbilicus lungs, perineum, CNS and striated muscles.

The etiology of endometriosis is still elusive and three theories are prevalent but none has yet been fully accepted. Mechanical, hormonal, immunological, genetic factors and environmental have been implicated in its etiology but proved inconclusive. The most accepted is sampson's theory of retrograde menstruation, according to which endometrial tissue refluxes through the fallopian tubes during menstruation and implants on the serosal surface of abdominal and pelvic organs. [3,9] Second Meyer's theory of celomic metaplasia, based on common origin of endometrium and peritoneum from common embryonic precursor cell. Third is Halbans theory suggests that distant lesion is due to hematogenous and lymphatic spread.

Rectosigmoid colon is the common site of involvment of endometriosis in gastrointestinal tract. Bowel endometriosis occurs as an invasion phenomenon from outside implantation, which begins on the serosa and may invades the muscularis propria, but the mucosa is rarely affected. [3,5,9] The mechanism by which bowel endometriosis causes intestinal symptoms remains unclear. Lesions may cause fibrosis, thickening of the bowel wall, resulting stricturing and mechanical bowel obstruction or they may infiltrate and damage the nervous plexus. [5]

The pathological differential diagnosis of this lesion includes carcinoma of sigmoid colon. It presents as stricture or napkin ring constrictions causing luminal narrowing and intestinal obstruction. Microscopy of the lesion shows mucosa lined by columnar epithelium with adjacent tumor tissue. Tumor proper shows tumor cells arranged in glandular pattern, infiltrate in to deeper layers. Tumor cells are round to oval with pleomorphic, hyper chromatic nuclei, increased N:C ratio and moderate cytoplasm. Sigmoid colon endometriosis presented as intestinal obstruction due to stricture. Microscopy of the lesion shows mucosa lined by columnar epithelium and sub mucosa and muscularis shows endometrial glands, endometrial stromal tissue and hemosiderin laden macrophages.

The treatment of large-bowel endometriosis depends upon the patient's age, the severity of disease and desire to maintain her fertility. [3-5] Surgery is indicated when patients present with pain, bleeding and changes in bowel habits, and it is not possible to rule out a malignant tumor and intestinal obstruction resulted in an improvement of pain, quality of life and fertility. The goal of surgery for bowel endometriosis is removal of the affected area and restoration of bowel continuity and function with addition to providing tissue for definitive diagnosis.

CONCLUSION

Intestinal endometriosis is an under diagnosed condition with high mortality. Diagnosis is extremely difficult pre operatively due to unexplained bowel symptoms and limited diagnostic procedure. Histopathology is definitive diagnosis for confirmation of sigmoid colon endometriosis.

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