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AN UNUSUAL CASE SERIES OF LARGE BOWEL OBSTRUCTION DUE TO INTESTINAL ENDOMETRIOSIS IN POST-HYSTERECTOMY WOMEN.

General Surgery

Dr. Ayyar Srinivas Mahesh Assistant professor, Department of General Surgery, ASRAMS Eluru, Andhra Pradesh, India. 534005.

Dr. N. Venkata Naga Praneeth Post Graduate, Department of General Surgery, ASRAMS Eluru, Andhra Pradesh, India. 534005.

Dr. B. Sandeep Assistant professor, Department of General Surgery, ASRAMS Eluru, Andhra Pradesh, India. 534005.

Dr. P. Varun Post Graduate, Department of General Surgery, ASRAMS Eluru, Andhra Pradesh, India. 534005.

ABSTRACT

Endometriosis is presence of functioning endometrial glands and or stroma in sites other than uterine cavity.
GI involvement of endometriosis has been found in 3-37% of women of which Postmenopausal intestinal endometriosis is rare and incidence is only 2-5% of which only 0.1-0.7% cases had presented with acute intestinal obstruction.
We report a rare series of two cases in post-hysterectomy women presented with an acute presentation of large bowel obstruction due to intestinal endometriosis which highlights the dilemmas of preoperative diagnosis.

KEYWORDS

Intestinal endometriosis, large bowel obstruction, post-hysterectomy women.

CASE REPORT 1:
A 55 year old woman presented with diffuse colicky abdominal pain, distension, obstipation from 3days with no other GI/gynecological symptoms. Past history of altered bowel habits present. She underwent Total abdominal Hysterectomy 15years ago.

On general examination, patient conscious and coherent, moderately built and moderately nourished. Vital signs PR: 106 bpm, BP: 120/90 mm of Hg, TEMP: 99 F, RR: 18 cpm, Spo2: 96 % at room air.

Examination of abdomen showed: distended abdomen with tenderness and guarding all over abdomen. No palpable mass/free fluid. Hernial orifices normal. Bowel sounds were sluggish. Proctogynecological examination was normal. Other system examination revealed no abnormality.

Investigations: Routine admission blood tests include complete blood picture, serum electrolytes, Renal function tests (RFT's), liver function tests (LFT's), coagulation profile and an arterial blood gas (ABG) were done which were within normal limits. Plain x-ray erect abdomen film showed dilated bowel loops with multiple air fluid levels. USG abdomen showed air distended bowel loops? Large bowel obstruction.

Fig 1: X-ray erect abdomen showing dilated bowel loops with multiple air fluid levels.

Preoperative diagnosis: Large bowel obstruction suspecting due to? Adhesions/malignancy/sigmoid volvulus.

Operative findings: Exploratory laparotomy was performed through a midline incision which revealed dilated small and large bowel loops and single hard 7×7 cm exophytic mass arising from sigmoid colon causing kinking and luminal narrowing of sigmoid colon.

Procedure done: HARTMANN'S procedure (resection of sigmoid colon along with mass with closure of distal rectal loop and proximal loop as colostomy)

Post operative status: Patient had an uneventful recovery and follow up.

Tumor markers were: CA-125 - 108.1 u/ml (<35u/ml), CEA – 3.80 ng/ml (0-5ng/ml), CA 19-9 – 5.7u/ml (0-37u/ml) showing marked raise in CA-125 levels.

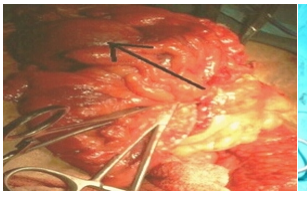


Fig 2: single hard 7×7 cm exophytic mass arising from Sigmoid colon.

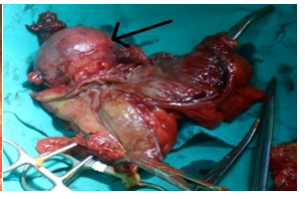
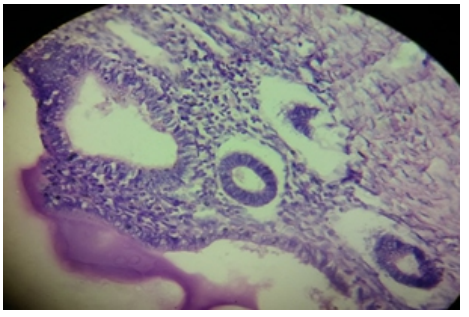


Fig 3: post resection specimen.

HPE report: ENDOMETRIOSIS OF SIGMOID COLON.

Fig 4: HPE showing endometrial glands with surrounding Stroma in seromuscular layer.



CASE REPORT 2:
A 48 year old woman presented with colicky abdominal pain, distension, associated with bilious vomiting and obstipation from 3days with no other GI/gynecological symptoms. She underwent Total

abdominal Hysterectomy 8 years ago.

On general examination, patient conscious and coherent, moderately built and moderately nourished. Vital signs PR: 94 bpm, BP: 130/80 mm of Hg, TEMP: 99 F, RR: 18 cpm, Spo2: 98 % at room air.

Examination of abdomen showed: distended abdomen with tenderness and guarding all over abdomen. No palpable mass/free fluid. Hernial orifices normal. Bowel sounds were absent. Proctogynecological examination was normal. Other system examination revealed no abnormality.

Investigations: Routine blood tests include complete blood picture, serum electrolytes, RFT, LFT, coagulation profile and ABG were done which were within normal limits. Plain x-ray erect abdomen film showed dilated bowel loops with multiple air fluid levels. USG abdomen showed air distended bowel loops? Large bowel obstruction.

Preoperative diagnosis: Large bowel obstruction suspecting due to? Adhesions/malignancy.

Operative findings: Exploratory laparotomy was performed through a midline incision which revealed dilated small and large bowel loops and single hard 5×4 cm mass arising from sigmoid rectal junction causing kinking and luminal narrowing.

Procedure done: HARTMANN'S procedure.

Post operative status: Patient had an uneventful recovery and follow up.

Tumor markers were: CA-125 - 140 u/ml (<35u/ml), CEA – 2.80 ng/ml (0-5ng/ml), CA 19-9 – 8 u/ml (0-37u/ml) showing marked raise in CA-125 levels.

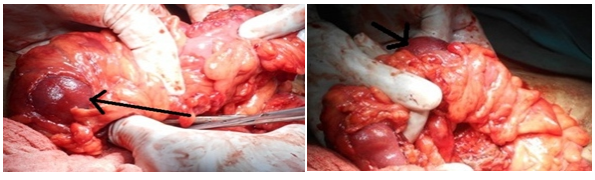


Fig 1and 2: single hard 5×4 cm mass arising from Sigmoid rectal junction.

HPE report: ENDOMETRIOSIS OF RECTUM.

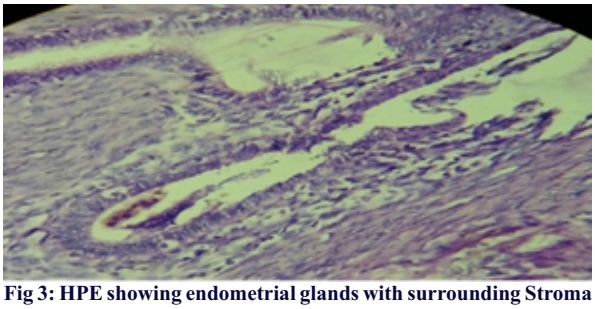


Fig 3: HPE showing endometrial glands with surrounding Stroma in seromuscular layer.

DISCUSSION:

Endometriosis is presence of functioning endometrial glands and/or stroma in sites other than uterine cavity.

It is usually seen in women of reproductive age. It affects about 10% of women in general population. Endometriosis of the GIT was described by Marshak and Friedman in 1950.[1] Gastrointestinal endometriosis (3-37% of an ectopic location) may affect the ileum, appendix, sigmoid colon and rectum with a more frequent location in the rectosigmoid (50-90%). Of the patients with a rectosigmoid location, only a few cases have been reported as an acute abdomen.[2] In a large series of patients with endometriosis, the number with intestinal endometriosis and obstruction was between 0.1% and 0.7%[3,4]; therefore, the present cases still remains very interesting, because of the diagnostic difficulties. On English literature review, only 11 reported cases of sigmoid colon endometriosis causing large bowel obstruction were found.

There are many theories which have tried to explain the pathogenesis of endometriosis such as Retrograde Menstruation (Sampson's theory) Coelomic Metaplasia (Meyer&Ivanoff), Direct Implantation, Lymphatic (Halban's) theory, Vascular dissemination, Genetic &Immunological factors. Bowel endometriosis begins by implantation on the serosa followed by invasion of the muscularispropria, but the mucosa is rarely involved. Large endometriotic lesions may cause thickening and fibrosis of the wall of the bowel resulting in stricture formation and mechanical bowel obstruction. It can also cause infiltration and damage to the nervous plexus or the interstitial Cajal cells as well as intestinal sympathetic nerve fibers attrition.[5]

The clinical features of bowel endometriosis vary depending on the extent and site of involvement, and it can be difficult to distinguish endometriosis of the GIT from other gastrointestinal pathology due to the lack of pathognomonic clinical features of the disease.[5,6,7] The symptoms of bowel endometriosis are usually abdominal pain, nausea, vomiting, fecal tenesmus, painful defecation, alternating constipation and diarrhea distention, and rectal bleeding.[8] In around 40% of the cases, symptoms get worse during menstruation. It has to be mentioned that the endometrial foci might have malignant transformation.[9] Intestinal endometriosis often presents as a sub-mucosal tumor or luminal stenosis, because it mainly involves the muscularis propria and subserosa or mesentery.

Diagnostic pre-operative evaluation in patients with chronic symptoms is easier and should include computed tomography (CT) scans, magnetic resonance imaging (MRI), and a positron emission tomography (PET) scan to avoid false positive diagnosis of malignancy.[10] Due to the emergency of our cases, no CT scan was performed. Another diagnostic problem is the intact mucosa and annular lesion in the bowel wall in the case of diagnostic endoscopy. In the present cases, endometriosis was presented as acute abdomen with rectosigmoid obstruction, so our patients were treated as an emergency case with no diagnostic endoscopy. Therefore, in emergency cases like ours, surgical treatment should be considered even when the differential diagnosis of malignancy is not certain.

The histological changes of the intestine wall involving endometriosis are located between muscular fibers, subserosa, and serosa, and the mucosa is mostly intact.

Treatment of large bowel endometriosis depends on the severity of the disease. Medical treatment in the form of combined ocp's, Progesterone (DIENOGEST), GnRH agonists and antagonists, Danazol are indicated when the disease is detected before there are complications. Surgical treatment in the form of laparoscopic or open surgery is indicated when the patient presents with changes in bowel habits, bleeding, intestinal obstruction, and when the malignant tumor cannot be ruled out.[5] Recently, the laparoscopic approach has been evaluated, with significant postoperative improvement of digestive and gynecological symptoms as well as quality of life, and should be the first surgical approach.[11] Intestinal endometriosis is difficult to diagnose when it presents as an obstruction of the large bowel. It is also difficult to differentiate it from malignancy. In the case of an obstruction, the treatment is surgical with removal of ectopic endometrial tissue, followed by confirmation of free margins. In our patients who were presented with complete large bowel obstruction, the treatment was open surgical intervention, resection of the bowel with the mass, and end colostomy.

Conclusion:

Endometriosis of the bowel may present as large bowel obstruction. To get the diagnosis is difficult because of the limited diagnostic procedures. Hence in women with acute intestinal obstruction surgeons should consider endometriosis as a differential diagnosis even though remote, mainly in reproductive age group patients.

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