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Colonic Endometriosis Mimicking Colonic Cancer – A Case Report

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Abstract **Case Report**

Colonic endometriosis is a rare manifestation with incidence rate of 8% to 12% globally with 90% of the lesion seen in recto-sigmoid. Colonic endometriosis characterized by which ectopic endometrial glands and stroma in colonic wall. The condition majorly targets the middle-aged women, and the symptoms may be related to the vague gastrointestinal symptoms such as abdominal discomfort, altered bowel habits, per rectal bleeding with or without bowel obstruction. Such clinical presentations are often like colorectal cancer and inflammatory bowel disease thus making the exact diagnosis difficult. The diagnosis is not easy, due to the instability of the disorder, and due to need to combine various testing modalities. The traditional imaging, endoscopic, and histopathological investigation are often necessary though shallow biopsy of mucosa-gathered by means of colonoscopy is usually inaccurate, as it is mostly localized in muscularis propria and subserosa. Surgical resection becomes not only the mode of diagnosis but also the mode of treatment particularly in cases of obstruction and in suspected malignancies in this condition. The current case report mentions the case of a patient having both sigmoidal and appendiceal endometriosis and displaying clinical symptoms that could be first referred to colorectal carcinoma. It promotes the need to consider colonic endometriosis in female patients of reproductive age presenting with gastrointestinal symptomatology.

Keywords: Intestinal Obstruction, Colonic Endometriosis, Bowel Resection, Recto-sigmoid Tumour, Histopathology.

INTRODUCTION

Colonic endometriosis is a uncommon, but clinically relevant form of deep infiltrating endometriosis (DIE) distinguished by the existence of ectopic endometrial tissue in the bowel wall, the recto-sigmoid region being most affected. The disorder usually targets women in the reproductive age group but may imitate gastrointestinal diseases such as colorectal cancer or inflammatory bowel disease due to overlapping symptoms that include abdominal pain, bleeding per rectum, and changes in bowel habits. Problems with diagnostics become evident when no gynaecological symptoms have been observed, and mucosal biopsies are often already non-diagnostic. The matter of case report presented below highlights such diagnostic complexities and describes surgical treatment of a patient with colonic and appendiceal endometriosis.

CASE REPORT

A 36-year-old female attended the Emergency Department with per rectal bleeding that appeared acute, with a 3-month history of altered bowel habit. She claimed previously no known medical illness. No family history of colorectal malignancy. She was not using any birth control pills.

The physical examination showed a well-built person with normal body-mass index of 30 kg/m2. The abdominal and per rectal exams were both unremarkable. Laboratory tests, such as carcinoembryonic antigen (CEA) were normal (0.5 ng/mL). Colonoscopy findings show gross luminal narrowing at 20 cm of anal verge, with edematous mucosal lining around the same (**Figure 1**). Unable pass scope further. Several mucosal biopsies demonstrated non-specific chronic inflammation, and the dysplasia or malignancy were absent.

An abdominal contrast-enhanced CT (CECT) revealed a segmental thickening of the wall of the sigmoid colon with a surrounding fat strand-like appearance, which is indicative of a high probability of malignancy (**Figure 2**). During review, patient complaints of tenesmus and pencil like stool. The patient was subjected to exploratory laparotomy, anterior resection, and appendectomy in view of impending obstruction.

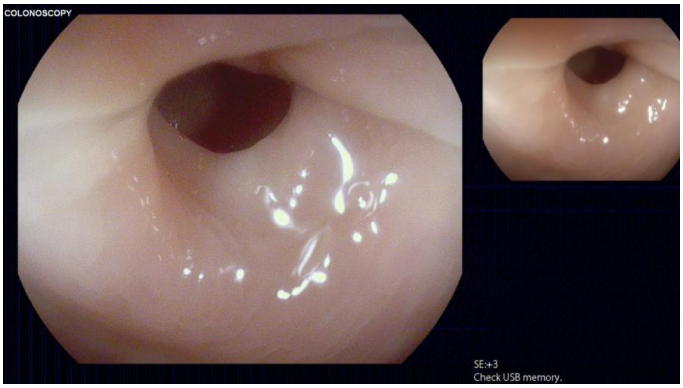

Figure 1: Colonoscopy showed significant narrowing of lumen and unable to pass scope beyond 20cm from anal verge with surrounding mucosa appeared edematous

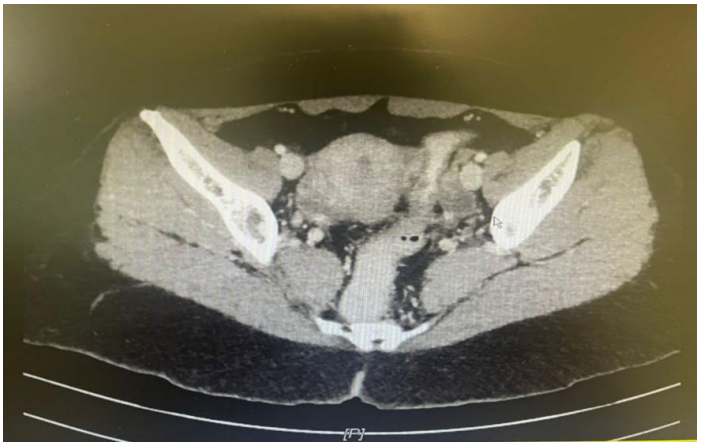

Figure 2: Contrast Enhanced CT scan (CECT) of abdomen revealed short segment enteric wall thickening in the sigmoid colon

Intraoperatively, a constricting recto-sigmoid tumour, about 6 cm, with serosal puckering and adherence to the uterus was found. (**Figure 3**)

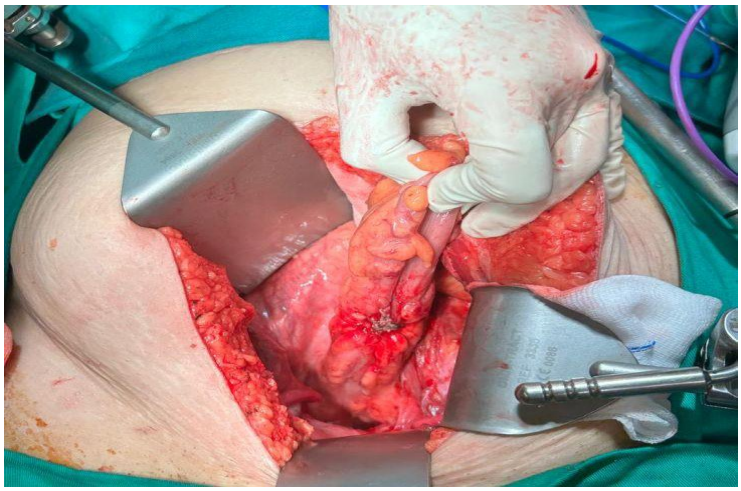

Figure 3: Constricting recto-sigmoid colon tumour with serosal puckering and loosely adhered anteriorly to uterus

The histopathological analysis of recto-sigmoid lesion showed the presence of endometrial glands and stoma, which were found buried in the muscularis propria, compatible with colonic endometriosis. Twelve regional lymph nodes reacted, one of which had endosalpingiosis. There was no sign of malignancy. Resection margins were clear and tumour free. The patient had a good postoperative course and was discharged on day six. In follow-up, she was asymptomatic with no gastrointestinal or gynaecological symptoms recurrence.

DISCUSSION

The incidence of colonic endometriosis forms about 5-12 per cent of all endometriosis cases and the

rectosigmoid is the most affected part owing to its anatomical closeness to the uterus and cul-de-sac [1]. Various symptoms including a change in bowel habits, tenesmus, and rectal bleeding can be confused with colorectal cancer, especially in the scenario where classic gynaecological symptoms are not present. It is characterized by involvement of muscularis propria and subserosa with sparing the mucosa. This underscores the problem of low diagnostic yield of mucosal biopsies when performed with a colonoscopy, as demonstrated in a case report, which found that such biopsy could diagnose intestinal endometriosis in fewer than 10 % of cases [2].

Since computed tomography (CT) imaging can account to thickening of the bowel wall or mass effect but the findings are not specific, magnetic resonance imaging (MRI) is best in the detection of deep infiltrating endometriosis (DIE) particularly in recto-vaginal involvement [3]. DIE is associated with lesions penetrating beyond 5 mm through the peritoneal level and can have a fibrose, adherent characteristics resembling cancer tubes. DIE of the recto-sigmoid colon may manifest itself surgically in the form of a constricting lesion with puckering of the serosa and fibrosis [4]. Histology still reigns as the gold standard for diagnosis. The occurrence of appendiceal involvement is uncommon (<1 %) and usually found accidentally after surgery.

Histologically, colonic endometriosis exhibits ectopic endometrial glands and structural body in muscularis propria and subserosa. Other related findings, like endosalpingiosis-benign Mullerian lesions in the lymph nodes, may masquerade metastasis, without being malignant [4].

The management is based on the intensity of symptoms, fertility interest and disease spread. In mild case, medical management using hormonal suppression (e.g. gonadotropin-releasing hormone analogues, progestins) may be effective [5]. Surgical resection should be conducted in case of bowel obstruction, intractable presentation or suspected malignancy. In this instance, surgical resection was diagnostic and therapeutic. The patient presented with multifocal disease (degree of sigmoid and appendix), which advocated adequate intraoperative exploration. Consideration should also be given to postoperative hormonal therapy to lessen the risk of recurrence, particularly with women who have residual disease or disseminated disease.

CONCLUSION

Colonic endometriosis must be considered on the differential differential diagnosis in reproductive-age women who present with gastrointestinal symptoms with imaging evidence of bowel obstruction or colorectal cancer. Endoscopic biopsy may produce even inconclusive results if located in the submucosa, thus, a multimodal approach that includes radiological methods, surgical inspection and precise histopathological confirmation is often needed. Eventually, the symptomatic or obstructive disease should be treated by surgical resection.

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Conflict of Interest: The authors declare no conflict of interest

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