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Case Report

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Endometriosis of the Sigmoid Colon Presenting as Acute Intestinal Obstruction: A Case Report

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Abstract

Background: Intestinal endometriosis is usually asymptomatic and complete obstruction of the bowel lumen occurs in less than 1% of cases.

Case presentation: We report a case of endometriosis of the sigmoid colon, which caused complete intestinal obstruction and mimicked carcinoma of the sigmoid colon in a 30-year-old woman who presented with signs and symptoms of acute abdomen. Plain abdominal X-ray showed dilated large bowel and multiple air fluid levels, subsequent exploratory laparotomy showed a constricting sigmoid colon surrounded by fibrous tissue, leading to its angulation and extensive lumen obstruction. Pathological examination revealed endometriosis in the bowel wall with preservation of the mucosa.

Conclusions: Endometriosis of the large bowel presenting with signs and symptoms of acute intestinal obstruction may mimic large bowel malignancy and present as a diagnostic dilemma as is this case.

Key Words: endometriosis, malignancy, acute intestinal obstruction

Introduction

Endometriosis is a common disease of women within the reproductive age group. The intestine is involved in 12-37% of cases [1]. These cases are usually asymptomatic and involved the serosa surfaces of the sigmoid colon]. Complete obstruction of the bowel lumen occurs in less than 1% of cases [1, 2, 3, 4, and 5].

Clinically about 5.0% of intestinal endometriosis requires treatment of which only 0.7% needs intestinal resection [5]. The lack of specific symptoms of bowel endometriosis makes accurate pre-operative diagnosis difficult [6].

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Although endometriosis of the colon may have been diagnosed clinically or histologically in Ghana, no case has been published in the literature from Ghana. We report a case of histologically confirmed endometriosis of the sigmoid colon in a 30-year old woman that presented as acute intestinal obstruction.

Case Report

A 30 years old nulliparous woman presented on the 06/09/2014 to the Kaneshie polyclinic with a three day history of constipation, colicky abdominal pain, abdominal distension and nausea. She was referred to the Korle-Bu Teaching Hospital as a case of intestinal obstruction. She mentioned that the abdominal pain and the distention were gradual in onset. She was a seamstress by profession and the 3rd of four females, no family history of a similar condition. She had menarche at the age of 12 years and till date, each cycle is

Figure 1: Segment of the sigmoid colon of a 30-year old woman showing a tan tumour occluding the lumen of the bowel.

associated with severe dysmenorrhea. She also had no history of contraceptive usage. Her last menstrual period was 20/08/2014.

Physical examination revealed a young woman in pain, dehydrated, warm to touch with pallor of the conjunctiva. The abdomen was distended, with generalized tenderness, guarding and rebound tenderness.

Plain abdominal X-ray showed dilated loops of large bowels with multiple air-fluid levels. The haemoglobulin level was 13.1 g/dl, WBC was $6.93X10^9$/L, and the neutrophil count was 80.8%, Lymphocyte count, 12.9%, Monocyte count 6.1%, Basophils count 0.2% and Eosinophils count, 0.0%. The BUE & Cr was 10/09/2014, Sodium (Na) 126 mmol/L, Potassium (K) 5.3 mmol/L, Chloride, 98mmol/L, Urea (SI), 1.7 mmol/L (Low), Creatinine (SI), 38 umol/L. The Liver Function Test (LFT) was normal,

The diagnosis of intestinal obstruction was confirmed. She was transfused a unit of whole blood and prepared for surgery. She had left hemicolectomy on the 6/09/2014. A constricting sigmoid colon tumour with dilated bowel extending from the caecum to the sigmoid colon was found at surgery. There were neither ascites nor liver metastases.

Histopathology report

On gross examination, the left hemicolectomy specimen was 924.0cm in length. On opening, the bowel revealed a

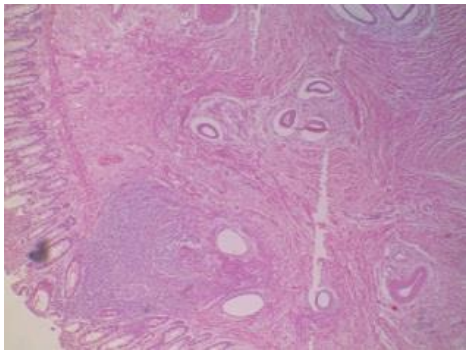

Figure 2: Histological section of the sigmoid tumour in the 30-year old women showing endometrial glands and stroma within the muscular wall of the sigmoid colon. There is an associated lymphoid follicle.

solid tan concentric tumour that was 8.0cm from the distal resection margin and 15.0 cm from the proximal resection margin.(Figure 1) The tumour measures 3.0x2.5 cm. The overlying mucosa was normal. A total of 21 lymph nodes were retrieved from the pericolic fat.

Microscopy examination of sections of representative portions from the sigmoid colon showed endometrial glands and stroma deeply buried within the muscular layer and the submucosa. (Figure 2, 3) The mucosa is intact. Also seen were areas of old and recent hemorrhages. The 21 lymph nodes retrieved showed reactive changes with no evidence of malignancy. This large number of benign lymph nodes retrieved supports the fact that madam VN had this condition for about 18 years, and this is subjected to the monthly hormonal response (menstrual cycle).

Discussion

Thirty year old lady presented with a three day history of signs and symptoms of acute intestinal obstruction. A pre-operative diagnosis of acute intestinal obstruction secondary to sigmoid colon malignancy was made. The tumour was histologically an endometriosis of the wall of sigmoid colon. The mass completely occluded the lumen without mucosal involvement. Histological

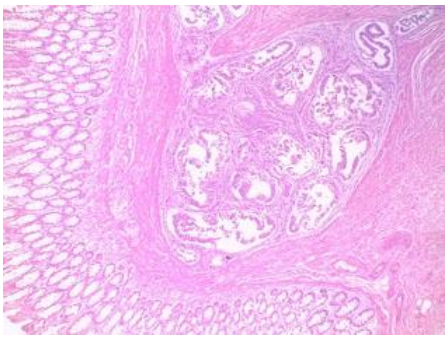

Figure 3: Histological section of the sigmoid tumour in the 30-year old women showing endometrial glands and stroma within the bowel with an intact mucosa over the tumour

examination of the resected colonic specimen revealed endometriosis of the sigmoid colon.

Endometriosis of the sigmoid colon has been reported in women within the reproductive age group [1] similar to the current case report. The serosa of the bowel is commonly involved [3, 4], but in a rare proportion of the cases, the muscular wall of the bowel is involved induced secondary smooth muscle hypertrophy with occlusion of the lumen and patients thus present with acute intestinal as in case [1, 2, 6]. In this case report, the mucosa of the bowel was uninvolved, a finding that differs from studies that found various types of inflammatory and ulcerative changes simulation inflammatory bowel disease [7].

There has been a case report of three case of bowel endometriosis with lymph nodes involvement [8]. We retrieved a total of 21 lymph nodes but all showed reactive changes without nodal involvement.

The clinical presentation of endometriosis of the colon is none specific, practically mimicking most large bowel conditions including neoplasms [4]. In this current case report, the patient had a clinical diagnosis of colonic malignancy leading to intestinal obstruction, a diagnosis that was confirmed by plain abdominal X-rays. This was however not supported by histology, which reported it to be sigmoid colon endometriosis. This case demonstrates the difficulty of establishing an accurate pre- and per-operative diagnosis of large bowel endometriosis and the propensity of intestinal endometriosis to mimic colon cancer [5].

One thing that is worrisome is the fact that neoplastic transformation can supervene in these endometriotic foci usually in the form of carcinoma in situ, endometriod adenocarcinoma, Mullerian adenocarcinoma and endometrial stroma tumor [9, 10, 11]. However, repeated sampling of the lesion in this current case report did not show any evidence of malignancy.

The management of bowel endometriosis on bowel surfaces without significant involvement of the bowel wall and the lumen is conservative. However, cases presenting as intestinal obstruction surgery is recommended as in this case.

Conclusion

Patient had left sigmoid colectomy for a clinical diagnosis of carcinoma of the colon presenting as acute intestinal obstruction. The tumour however was histologically found to be endometriosis of the wall of sigmoid colon which completely occluded the lumen without mucosa involvement. It is therefore important for the surgeons to endometriosis may mimicked large bowel malignancy and present as a diagnostic dilemma as is the case

Authors' contributions

EMD: Preparation of the case report, literature review and revision of manuscript.

SEQ: Pathological reporting and literature search

AT: Prepared the case report and operating surgeon.

SBN: Revision of the case report and final revision.

Conflict of interests

The authors declare that there are no conflicts of interests.

Ethical considerations

The authors declare that the written consent was obtained from the patient for publication of this case report. The consent is available with the authors.

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