World Journal of Advanced Research and Reviews
eISSN: 2581-9615 CODEN (USA): WJARAI
Cross Ref DOI: 10.30574/wjarr
Journal homepage: https://wjarr.com/

(CASE REPORT)

A rare case of intestinal obstruction caused by endometriosis

Kenneth Oluchukwu Ugwuanyi [1,*], Kingsley Odinaka Idoko [1], Onyekachi Amos Onu [2], Chinedu Onwuka Ndukwe [3], Harrison Chiro Ugwuoroko [4], Achomma Amobi Egwuonwu [1] and Princeston Chukwuemeka Okam [4]

[1] *Department of Surgery, Nnamdi Azikiwe University Teaching Hospital, PMB 5025, Nnewi, Anambra State, Nigeria.*
[2] *Urology Department, Nnamdi Azikiwe University Teaching Hospital, PMB 5025, Nnewi, Anambra State, Nigeria.*
[3] *Histopathology Department, Nnamdi Azikiwe University Teaching Hospital, PMB 5025, Nnewi, Anambra State, Nigeria.*
[4] *Department of Obstetrics and Gynaecology, Nnamdi Azikiwe University Teaching Hospital, PMB 5025, Nnewi, Anambra State, Nigeria.*

World Journal of Advanced Research and Reviews, 2025, 26(01), 2910-2914

Publication history: Received on 14 March 2025; revised on 20 April 2025; accepted on 22 April 2025

Article DOI: https://doi.org/10.30574/wjarr.2025.26.1.1409

Abstract

Intestinal obstruction is a rare complication of endometriosis, a condition characterised by the deposition of endometrial tissue outside the uterine cavity. The rectosigmoid region is the most common site for intestinal endometriosis.

We report a case of 33-year-old woman who presented with features of acute intestinal obstruction of 2 days duration. She has had similar symptoms in the past which were managed conservatively. She was resuscitated, initially managed conservatively, and eventually had exploratory laparotomy with finding of a rectosigmoid mass and a histological diagnosis of endometriosis. The case was reported because of the rarity of endometriosis causing intestinal obstruction

Keywords: Endometriosis; Intestinal obstruction; Rectosigmoid; Rectum; Sigmoid

1. Introduction

Endometriosis is the presence of endometrial tissue outside of the uterine cavity (1). The incidence is 10-15% in women of reproductive age (2). Bowel involvement occurs in approximately 3.8-33% of cases, most commonly affecting the rectosigmoid tract with 7–23% of these patients progressing to intestinal obstruction (3).

The clinical diagnosis of Intestinal endometriosis is difficult as the presentation is not specific and requires a high index of suspicion. Diagnosis is often made incidentally during surgery or following complications such as bowel obstruction, perforation, or ileocecal intussusception using the histology of the resected specimen. The definitive treatment of intestinal obstruction caused by endometriosis is resection of the affected bowel and subsequent anastomosis. This measure is both diagnostic and therapeutic.

2. Case Report

A 33-year-old female presented with complaint of colicky abdominal pain of 2 days duration with associated progressive abdominal distension, constipation, and nausea. She had multiple prior episodes which were managed conservatively. There was history of constipation that started 2 years prior to presentation, worse during menstruation. There was no weight loss or anorexia. There was no family history of colorectal tumor. She was being managed by a gynaecologist for secondary infertility and she has had In vitro fertilisation 4 years prior to presentation with delivery of twins via caesarean section. She also had laparoscopic adhesiolysis for endometriosis 15months prior to delivery. Examination

* Corresponding author: Kenneth Oluchukwu Ugwuanyi

revealed a woman in intermittent painful distress, afebrile, not pale but dehydrated. The abdomen was distended, non-tender with hyperactive bowel sound. The rectum was collapsed with no fecal matter. Abdominal ultrasound scan showed features of intestinal obstruction and a plain abdominal x-ray showed a dilated large gut (Fig. 1).

Figure 1 Plain Abdominal X-ray Showing Dilated Loops of Large Intestine

Figure 2 Intra-Operative Finding: Distended Colon

A diagnosis of adhesive intestinal obstruction was made and she was managed conservatively for 3 days. However, there was no resolution of symptoms and she therefore had an exploratory laparotomy. Intra-operative findings included dilated small and large gut down to the rectosigmoid region at which point there was a constricting hard tumor and subsequent collapsed rectum (Fig. 2). Defunctioning sigmoid colostomy was done and postoperative recovery was uneventful.

She had a sigmoidoscopy done three weeks later with findings of a stromal/subepithelial mass at the rectosigmoid junction. (Fig. 3). A biopsy was taken and the initial histology showed a lymphoid polyp. 3 months later, the patient had an anterior resection with reversal of colostomy. Post-operative recovery was normal. The final histology showed endometriosis.

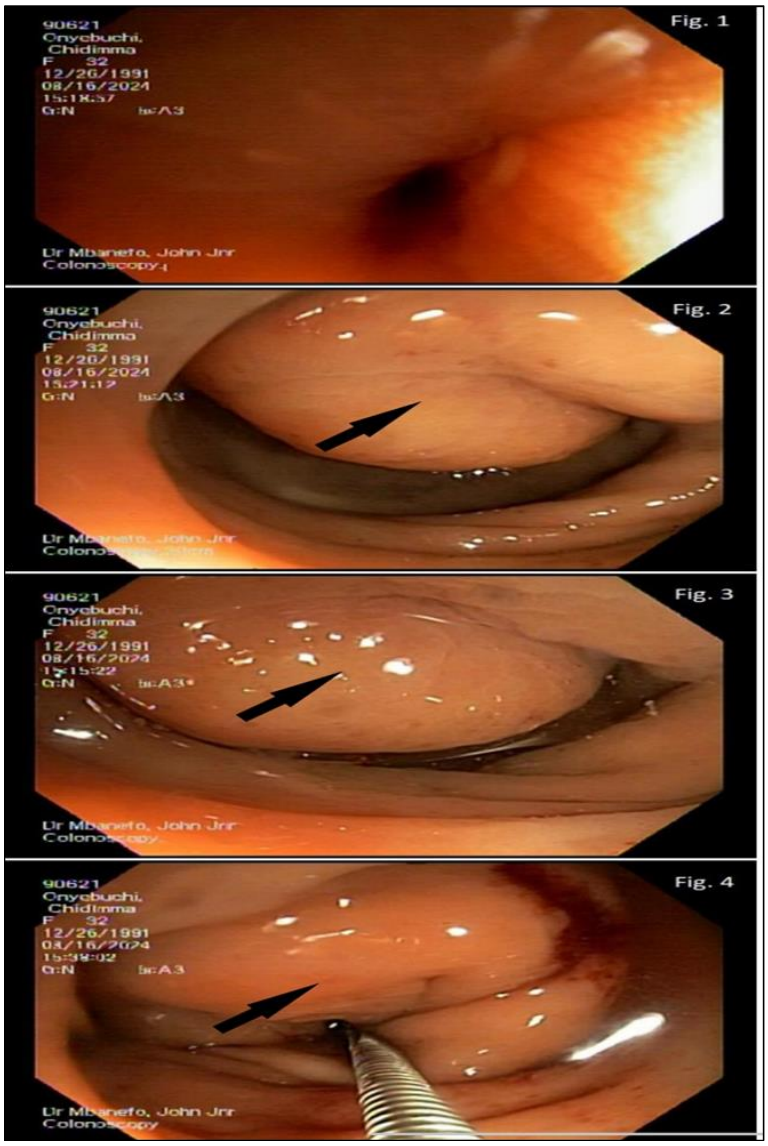

Figure 3 Sigmoidoscopy: Stromal Mass at the Rectosigmoid Junction

3. Discussion

One of the earliest descriptions of the pathology of endometriosis was by Daniel Shroen in the work "Inauguralis Medica de Ulceribus Ulceri" in 1690 (4). About one and a half centuries later, the intestinal type was described by Sampson in 1922 (5). The rectosigmoid region is the most common location for intestinal endometriosis (up to 95% of cases), followed by the ileum, appendix and then cecum (6). While intestinal endometriosis is estimated to account for between 3.8% to 33% of all endometriosis cases, cases of intestinal obstruction due to endometriosis is very rare, accounting only for 0.1-0.7% of all cases(7).

Clinically, the patient could be asymptomatic. Those who are symptomatic may present with dysmenorrhoea, dyspareunia, subfertility and infertility. More specific symptoms of bowel involvement can include constipation, diarrhea, dyschezia, and bowel obstruction. While these symptoms are generally more pronounced during menstruation, misdiagnosis is common because they can be mistaken for other pathologies such as malignancy and inflammatory bowel disease (3). Endometriotic foci may be located in the lumen or in the wall of the intestine (like in

the index patient) and may cause an obstruction by mechanical compression, formation of adhesions, or intussusception (7).

The pathogenesis of bowel endometriosis as explained by Yong et al (8) is multifaceted and involves a complex interplay between the unique anatomy of parts of the bowel in relation to the uterus and other deleterious processes like invasion, fibrosis and neoangiogenesis that enable the mass establish itself in this location. They also explained that bowel endometriosis exhibits a predilection for the rectum and sigmoid colon, a phenomenon that may be linked to anatomical factors such as the deposition of refluxed endometrial tissue within the pouch of Douglas and its confinement by the sigmoid colon's position, as in the index patient. A possibility has also been offered for the role of oncogenes such as RAS (9)(10) and local neurogenesis (11)(12) in the pathogenesis.

Mild, non-obstructive cases of intestinal endometriosis can sometimes be managed with hormonal therapies like oral contraceptives and intrauterine devices (13)(14). In a few obstructive cases, the obstruction can temporarily be relieved by endoscopic balloon dilatation or stenting, allowing a latter single-stage resection and anastomosis. This temporary relief is attractive as it provides surgeons some time to correct any fluid and electrolytes imbalance and to undertake some bowel preparation, both of which are likely to improve surgical outcomes (7). However, because these procedures are not always available in emergency settings, to which most patients present with intestinal obstruction, most cases of bowel obstruction secondary to intestinal endometriosis are treated by a midline laparotomy, as was the patient reported here. The index patient only got a colonoscopy after the initial laparotomy and colostomy and the diagnosis was retrospectively made.

4. Conclusion

Intestinal obstruction secondary to endometriosis is rare and diagnosis requires a high index of suspicion especially in women of reproductive age presenting with intestinal obstruction. Timely surgical relief of the obstruction and subsequent colonoscopy & resection is curative.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of informed consent

Informed consent was obtained from the individual whose case was discussed.

References

[1] Smolarz B, Szyłło K, Romanowicz H. Endometriosis: epidemiology, classification, pathogenesis, treatment and genetics (review of literature). Int J Mol Sci. 2021; 22 (19): 10554.

[2] Parazzini F, Esposito G, Tozzi L, Noli S, Bianchi S. Epidemiology of endometriosis and its comorbidities. Eur J Obstet Gynecol Reprod Biol X. 2017; 209: 3-7.

[3] Rana R, Sharma S, Narula H, Madhok B. A case of recto-sigmoid endometriosis mimicking carcinoma. Springerplus. 2016; 5: 643.

[4] Crause RW, Schron DC. Disputotio Inauguralis Medica de Ulceribus Uteri. Literis Krebsians, 171690: 6-17

[5] Sampson JA. Intestinal Adenomas of Endometrial Type: their Importance and their Relation to Ovarian Hematomas of Endometrial Type (perforating hemorrhagic cysts of the ovary). Arch Surg. 1922; 5(2): 217-280.

[6] Bergqvist A. Extragenital endometriosis: A review. Eur J Surg. 1992; 158 (1): 7-12.

[7] Muşat F, Păduraru DN, Bolocan A, Constantinescu A, Ion D, Andronic A. Endometriosis as an Uncommon Cause of Intestinal Obstruction—a Comprehensive Literature Review. J Clin Med. 2023; 12(19): 6376.

[8] Yong PJ, Bedaiwy MA, Alotaibi F, Anglesio MS. Pathogenesis of Bowel Endometriosis. Best Pract Res Clin Obstet Gynaecol. 2021; 71: 7-13.

[9] Serrano M, Lin AW, McCurrach ME, Beach D, Lowe SW. Oncogenic RAS Provokes Premature Cell Senescence Associated with Accumulation of p53 and p16INK4a. Cell. 1997; 88(5): 593-602.

[10] Guerra C, Mijimolle N, Dhawahir A, Dubus P, Barradas M, Serrano M et al. Canc Cell. 2003; 5(2): 111-120.

[11] Wang G, Tokushige Natsuko, Russell P, Dubinovsky S, Markham R, Fraser IS. Hyperinnervation in Intestinal Deep Infiltrating Endometriosis. J Minim Invasive Gynaecol. 2019; 16(6): 713-719.

[12] McKinnon BD, Bertschi D, Bersinger NA, Mueller MD. Inflammation and Nerve Fiber Interaction in Endometriotic Pain. Trends Endocrinol Metabol. 2015; 26(1): 1-10.

[13] Egekvist AG, Marinovskij E, Forman A, Kesmodel U.S, Riiskjaer M, Seyer-Hansen M. Conservative Approach to Rectosigmoid Endometriosis: A Cohort Study. Acta Obstet Gynecol Scand. 2017; 96: 745–750.

[14] Egekvist AG, Marinovskij E, Forman A, Kesmodel U.S, Graumann O, Seyer-Hansen M. Conservative Treatment of Rectosigmoid Endometriosis: A Prospective Study. Acta Obstet Gynecol Scand. 2019; 98: 1139–1147.