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Case Report

Ileocecal endometriosis: diagnosis and management

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ABSTRACT

Objective: Ileocecal endometriosis is rare. Symptoms range from no symptoms, cramps, vomiting, to acute intestinal obstruction. Our objective was to review our cases, clarify, and resume its most appropriate management focusing on the factors to determine diagnosis. This is a retrospective study by revision of medical charts of all ileal endometriosis cases of our unit from 2006 to 2014.

Case Report: Seven cases were found; three (43%) had previous endometriosis laparoscopic diagnosis, four (57%) had partial bowel obstruction episodes, three (43%) had chronic pelvic pain, and one developed acute intestinal obstruction in postoperative ileostomy closure. In three (43%), the diagnosis was made with magnetic resonance imaging (MRI) and double contrast barium enema, in one (14%) only with MRI, and the other three (43%) during surgery. All patients underwent resection of the ileum and evolved favorably.

Conclusion: Variability in symptoms hinders diagnosis. The gold standard for diagnosis is MRI, but clinical suspicion optimizes imaging test diagnosis. Segmental resection should be indicated in the majority of the cases.

Introduction

Endometriosis is a chronic gynecological disease characterized by the presence of endometrial tissue, which lies outside the uterine cavity. It affects 10–15% of women of reproductive age [1].

The most frequent location is the ovary, followed by the Douglas cul-de-sac and the uterosacral ligaments [2]. The bowel is the most affected extragenital location (3–12%), 50–90% in the rectosigmoid junction; however, it can also affect the small bowel (2–16%), appendix (3–18%), and cecum (2–5%) [3].The ileum is affected in 4.1% patients [4].

The clinical features that patients with bowel endometriosis present add to the usual symptoms (cyclic pelvic pain, dysmenorrhea), others that are more specific of bowel involvement, such as rectal pain extended to the perineum (rectosigmoid location), which worsens with defecation, sitting, and especially during menstruation (52%), constipation, diarrhea, catamenial rectal bleeding (15–20%), and subocclusion symptoms (12%). Acute occlusion is rare [5]. When ileal involvement is added to other locations, symptoms overlap and the diagnosis can be omitted; in the cases where it is presented separately, unspecific symptoms (cramps, vomiting, abdominal distension) will require the patient to undergo numerous tests for differential diagnosis with other intestinal diseases, leading to frustrating results and inadequate treatment for many years [6].

The purpose of this study was to review our experience with regard to the ileal endometriosis focusing on the importance of clinical suspicion for the diagnosis.

Case report

After the Institutional Review Board approval, we retrospectively reviewed the medical charts of all ileal endometriosis cases operated and followed-up at the Endometriosis Unit of La Paz Universitary Hospital from 2006 to 2014.

During the study period, 150 patients were operated for symptomatic deep endometriosis at our center. Among these, 73 patients

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had bowel endometriosis and only 7 patients had ileum involvement; their characteristics are given in Table 1.

Four (57%) patients had previous surgeries that allowed the diagnosis of endometriosis: one patient for endometrioma resection 4 years before; one patient for segmental resection of the rectum due to endometriosis 3 months before, and two patients had a diagnostic laparoscopy, one several months before the ileum resection (it allowed to establish diagnostic suspicion) and the other with rectal biopsy and cystectomy 9 years before.

Three (43%) patients presented with the main symptom episodes of catamenial intestinal pseudo-occlusion. One patient presented an acute bowel obstruction during the postoperative care from the closure of a prophylactic ileostomy. Four (57%) patients had chronic pelvic pain; one of them suffered two episodes of intestinal pseudo-occlusion short before the scheduled surgery.

In three (43%) patients, diagnosis was reached by magnetic resonance imaging (MRI; Figure 1) and double contrast barium enema (DCBE; Figure 2), in one (14%) patient just by MRI, and three (43%) patients were diagnosed during surgery. One patient with negative MRI for an ileum lesion from 6 months before and who had a scheduled focus surgery on the rectosigmoid suffered two episodes of pseudo-occlusion prior to the surgery; a re-evaluation of the MRI was requested from the radiology department without visualizing a lesion at that level.

The seven patients received hormonal treatment; Patients 1, 2, and 5 received combined oral contraceptives, Patients 3 and 7 got levonorgestrel intrauterine device, and patients 4 and 6 received GnRH analogs.

In all the patients, the surgery was performed in collaboration with the general surgery unit; surgery was performed by laparoscopy in five patients and by subumbilical midline laparotomy in two patients, obtaining histologic confirmation of the presence of endometriosis in the resected ileum segments in all the patients.

A resection of the ileum by end-to-end anastomosis was performed in all of them, and they all progressed toward recovery. Surgeries were performed by laparoscopy (single-port Olympus TriPort+; Figure 3) in Patients 1, 2, 3, 4, and 7 (71%). In the other two patients, the resection was performed by laparotomy due to excessive bowel distension; in Patient 5, emergency laparotomy was performed due to intestinal occlusion.

Three patients had deep lesions only in the ileum (43%). In two patients, adenomyosis was diagnosed by MRI (one of them had also several superficial peritoneal implants), and one had an ovarian endometrioma. Four patients had other deep lesions (57%), three of them (Patients 2, 5, and 7) in the rectosigmoid, two of which were resected during the same surgery, whereas in Patient 5, it was previously resected. In both patients, we performed a laparoscopic end-to-end anastomosis with CEEA-31 device. In Patient 2, we extracted the sectioned rectum through the colpectomy to perform the proximal section and place the anvil, while in Patient 5, this step was performed through a 4-cm suprapubic incision.

The painful symptoms of all patients improved significantly and the subocclusion symptoms were repeated in none of the patients. Only Patient 2 had surgical complications: a fistula due to dehiscence of the rectal anastomosis, which required a colostomy, leaving an ample vagina defect, and also a severe postoperative hemorrhage originating from a cervical artery that also required surgery. After a failed attempt of reconstruction, she continues with the ileostomy (probably permanent). Patient 1 is currently pregnant. Patients 2, 3, and 4 were treated with hormonal anticonceptives. Patient 5 received assisted reproductive treatment. Patient 6 received no treatment. Patient 7 underwent the hormone replacement therapy with estrogen and progestins.

Discussion

Infiltrating endometriosis affecting the terminal ileum is quite infrequent, accounting for 4.1% of all endometriosis cases that affect the bowel [4], which is 15–37% of the patients with pelvic endometriosis [7].

Indeed, since Melody [8] published the first case in 1956, multiple isolated cases [9,10] have appeared in the literature. Fedele

Table 1
Characteristics of the patients with an involvement of the ileum.

Patient	Age	Endometriosis previous diagnosis	Main symptom	Medical treatment	Diagnosis focus ileum	Associated lesions	Performed surgery	Via	ASRM
1	35	No	Catamenial pseudo-obstruction	Combined oral contraceptives	MR and DCBE	Adenomyosis (MR)	Ileum resection	SILS	I
2	30	LPSC	CPP	Combined oral contraceptives	LPSC (endometriosis)	Rectosigmoid, USL, and vagina	Ileum resection rectosigmoid resection partial colpectomy and USL resection	LPSC	IV
3	38	LPSC	CPP	LNG-IUD	MR and DCBE	Left USL and left ovarian endometrioma	Ovarian cystectomy + USL resection + ileum resection	LPSC	IV
4	31	No	Catamenial pseudo-obstruction	GnRH analogs	MR and DCBE	Small peritoneal implants and adenomyosis (MR)	Ileum and peritoneal implants resection	LPSC	I
5	34	LPSC	Bowel obstruction after closure of prophylactic ileostomy after LAR performed by endometriosis	Combined oral contraceptives	LAP (acute abdomen)	Rectosigmoid, USL and bilateral ovarian cyst	Ileum resection	LAP	IV
6	41	No	Catamenial pseudo-obstruction	GnRH analogs	MR	Right ovarian endometrioma	Right adnexectomy + myomectomy + ileum resection	LAP	IV
7	41	LPSC	CPP and 2 episodes pseudo-obstruction	LNG-IUD	LPSC	Rectosigmoid, USL, vagina and bilateral ovarian cystcs	HYS + partial colpectomy + Double adnexectomy + ileum and rectosigmoid resection	LPSC	IV

ASRM = American Society for reproductive medicine classification; CPP = chronic pelvic pain; DCBE = double-contrast barium enema; HYS = hysterectomy; SILS = single-incision laparoscopic surgery; LAP = laparotomy; LAR = low anterior resection; LNG-IUD = levonorgestrel intrauterine device; LPSC = laparoscopy; MR = magnetic resonance; USL = uterosacral ligaments.