Ileal endometriosis and Crohn’s disease: an unusual association causing acute bowel obstruction

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AIM: Endometriosis is a common health disorder in women, which is defined as the presence of bowel endometrial-like tissue outside the uterus. Bowel endometriosis occurs in approximately 10% of all cases, with ileal localization as a very rare clinical intestinal occlusion: acute intestinal obstruction is possible presentation of this disease. We report a case of a patient with known history of Crohn’s treated with ileal resection for acute intestinal occlusion; histology showed the co-existence of IBD and endometriosis in the intestinal wall.

CASE REPORT: A 35 years old female patient, with previous diagnosis of Crohn’s disease confirmed by endoscopic biopsies, was admitted to our Institutions because of acute intestinal obstruction. She previously suffered of dysmenorrhea and pelvic pain during menstration. A contrast enhanced CT abdominal scan was performed with evidence of diffuse small bowel fluid distension and thickening of terminal ileum wall, compatible with ileal stenosis in acute Crohn disease.

RESULTS: The patient underwent laparoscopic resection of distal ileus. Definitive histological examination showed ileal wall with multiple endometriosis foci and chronic follicular flogosis.

CONCLUSION: The case that we have described shows a rare co-existence of the two clinical entities (Crohn’s disease and ileal deep endometriosis), histologically demonstrated, with acute presentation as intestinal obstruction, successfully treated with laparoscopic ileal resection.

KEY WORDS Bowel obstruction, Crohn’s disease, Endometriosis

Introduction

Endometriosis is a common health disorder in women, which is defined as the presence of endometrial – like tissue outside the uterus, inducing a chronic inflammatory reaction; the so-called deep endometriosis, defined as disease located more than 5mm beneath the peritoneal surface, is mostly found on the uterosacral ligaments, inside the rectovaginal septum or in vagina, ovarian fossa, pelvic peritoneum, ureters and bladder.

Bowel endometriosis occurs in approximately 10% of all cases of endometriosis, and usually arises in the rectum and sigmoid colon in 80% of these; other tracts of intestine, such as ileocecal junction, are more rarely involved (20% of cases).

Bowel endometriosis usually causes non specific symptoms, such as recurrent pain and abdominal bloating; however, acute small bowel obstruction is described.

We report the case of a patient with known history of Crohn’s disease treated with ileal resection for acute intestinal occlusion; histology showed the co-existence of IBD and endometriosis in the intestinal wall.
Case Report

In May 2015, a 35 years old female patient came to Emergency Department, referring abdominal pain and swelling, vomiting, inability to flatus in a clinical pattern of symptomatic small bowel obstruction.

In 1998 a large right ovarian cyst was diagnosed; the patient suffered from dysmenorrhea and episodic pelvic pain during menstruation, that were mostly irregular in duration and flow: she had never desired pregnancy, so no data about her fertility were ever collected.

In 2011 the patient was admitted to a Division of Gastroenterology for fever, diarrhea and low right abdominal pain; a diagnosis of Crohn's disease had been obtained by endoscopic ileal biopsies (Fig. 1, 2); a the acutization of the IBD was treated with immunosuppressive drugs (azathioprine) and corticosteroids with complete remission of symptoms; a periodic follow up was started, but with weak compliance by the patient herself.

Three months before the onset of the acute bowel occlusion, the patient suffered from severe constipation, so she was admitted to Gastroenterologic Division and a complete colonoscopy was performed: it revealed a 2-3 mm ulcerative lesion located in terminal ileum, near ileocecal valve; biopsies showed focal ulcerative mucosal spots, with plasmacellular infiltration in lamina propria and focal criptitis in clinical feature mainly compatible with acute phase of IBD.

A therapy with corticosteroids was started with complete symptoms resolution; a maintenance therapy with azathioprine was prescribed.

Results

During hospitalization in our Division for bowel obstruction, the patient was treated by positioning of nasogastric tube, infusive and corticosteroid therapy without healing of symptoms.

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Fig 1.

Bowel biopsies. Focal ulcerative mucosal areas, with plasmacellular infiltration in lamina propria and focal criptitis.

Fig 2.

Fig 3: CT scan showing diffuse small bowel fluid distension and thickening of terminal ileum wall.

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A contrast enhanced CT abdominal scan was performed with evidence of diffuse small bowel fluid distension and thickening of terminal ileum wall, compatible with ileal stenosis in acute Crohn disease. No sign of bowel perforation and no pathological features to uterus and ovaries were discovered (Fig. 3). Because of the worsening of clinical conditions, the patient underwent surgical treatment. Laparoscopic exploration showed the presence of a stenotic ileal tract without signs of acute flogosis and perforation; a terminal ileus resection with ileal-right colonic anastomosis was performed through laparoscopy. Postoperative stay was uneventful, with canalization and alimentation restarting two days after the surgical procedure, and discharge in IV postoperative day. Definitive histological examination showed ileal wall with multiple endometriosis foci and chronic fullicolar flogosis, compatible with inflammatory disease (Figs. 4, 5, 6). At 3 months follow up, the patient was in good conditions, no abdominal pain was complained, regular feeding and canalization was referred: menstruation was painless; Crohn’s disease was quiescent without any maintenance therapy. Gynecological evaluation suggest only periodic follow-up, no medical treatment was considered necessary.

Discussion

Deep endometriosis with intestinal involvement (generally located to rectum) is condition that causes significant morbidity in affected individuals, and, despite our current knowledge of this disease, it continues to be a challenging diagnosis to make preoperatively 6. Laparoscopy is considered the gold standard for the diagnosis (and also for resective treatment when possible and indicated) of infiltrating endometriosis and histological confirmation can be beneficial due to high false positive rates of visual diagnosis; other diagnostic methods such as transvaginal and transrectal ultrasound, CT colonography and magnetic resonance; although colonoscopy is often performed in many patients with intestinal endometriosis to evaluate presenting complaints, most authors believe that the paucity of mucosal involvement makes colonoscopy more useful in excluding other diagnosis than confirming the diagnosis 7. Bowel is involved in between 3.8% and 37% of women with deep endometriosis 8. Ileal involvement is anyway very rare and the patients generally present with an asymptomatic or a painful mass 9, or other symptoms such as intestinal obstruction, perforation, hemorrhagic ascites, protein – losing enteropathy, anasarca and intussusception 10. Intestinal endometriosis with ileo – cecal localization can cause a variety of symptoms clinically mimicking other pathologies such as irritable bowel syndrome and, or, particularly when subacute or acute obstructions occur, Crohn’s disease 11. Underlining the importance of differential diagnosis between Crohn’s Disease and small bowel endometriosis, Literature describes very few cases in which these two pathologies co – exist 12, and usually, as we observed in our case, the diagnosis of inflammatory bowel disease precedes the discovering of endometriosis 13; anyway, following results from a long term study group observed in Denmark in 2011, it is suggested that likelihood of Crohn’s Disease in women affected by endometriosis is higher than in the control population 14; the possible
link can be explained taking into consideration that: both are inflammatory conditions; the Crohn's Disease is more common in women; both diseases are characterized by intermittent appearance; common immunological features or an impact on endometriosis treatment with oral contraceptives on risk of Crohn's Disease can also be discussed as possible links 15.

Conclusions

The case that we have described shows a rare co-existence of two clinical entities (Crohn's Disease and ileal deep endometriosis), histologically demonstrated, with acute presentation as intestinal obstruction, successfully treated with laparoscopic ileal resection.

Riassunto

INTRODUZIONE: La localizzazione intestinale dell'endometriosi ha un'incidenza di circa il 10% delle pazienti affette da tale patologia, e si localizza in genere al retto. La sintomatologia è spesso caratterizzata da dolori addominali ricorrenti; sono descritti in Letteratura rari casi di occlusione ileale. Riportiamo il caso di una paziente sottoposta ad intervento chirurgico per occlusione intestinale correlata alla coesistenza di endometriosi ileale e morbo di Crohn localizzati allo stesso tratto di ileo

CASE REPORT: Una paziente di 35 anni di età, nota per dolori addominali ricorrenti; sono descritti in Letteratura rari casi di occlusione ileale. La sintomatologia è spesso caratterizzata da dolori addominali ricorrenti; sono descritti in Letteratura rari casi di occlusione ileale. Riportiamo il caso di una paziente sottoposta ad intervento chirurgico per occlusione intestinale correlata alla coesistenza di endometriosi ileale e morbo di Crohn localizzati allo stesso tratto di ileo

RIASSUNTO

CONCLUSIONI: Il caso descritto riporta una inusuale asso-