ACUTE LARGE BOWEL OBSTRUCTION – A RARE PRESENTATION OF COLONIC ENDOMETRIOSIS

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CASE REPORT

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Abstract

Endometriosis is a common gynecological pathology, in which endometrial tissue is found outside the uterus, usually in the ovaries, fallopian tubes, utero-sacral ligaments and bladder. Depending on the location of the abnormal endometrial tissue, the symptoms are usually dysmenorrhea, menometrorrhagia, dyspareunia, dysuria, hematuria, recurrent pelvic pain during menstrual period. The recto-sigmoid junction as the only site where it can occur is a rare form of presentation. We present a rare case of recto-sigmoid endometriosis that caused acute large bowel obstruction in a 42-year-old female who have never had any specific symptoms of endometriosis.

Keywords: endometriosis, recto-sigmoid endometriosis, acute abdomen, acute bowel obstruction

Introduction

Endometriosis is a benign, common pathology that can affect 10% of women during their reproductive years (approximately 190 million women worldwide) [1]. The pathogenesis of the disease is still controversial in the scientific literature, with numerous theories such as: retrograde flow of endometrial cells during menstruation [2], metaplasia of local cells [3], estrogen hormone related proliferation and differentiation of the endometrium [4], reactive oxygen species (ROS) affecting the lipoprotein membrane of the endometrial cells [5], autoimmune disorders [6], apoptosis suppression in the endometrial cells [7], the stem cells support for perpetuation of the disease [8]. As an exhaustive review concludes, these many existing theories are more likely to coexists in the pathogenesis of the endometriosis [9] (Figure 1).

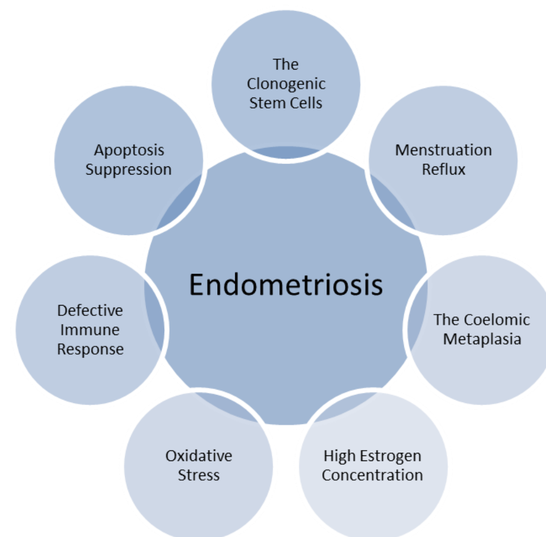

Figure 1 - Pathogenesis theories of endometriosis

The most frequent sites of endometriosis are the ovaries, followed by the fallopian tubes, anterior and posterior cul-de-sac and utero-sacral ligaments [10]. Depending on the location, the symptoms may vary: severe dysmenorrhea, chronic pelvic pain, dyspareunia, dysuria, infertility and low quality of life [11]. Extrapelvic endometriosis is a rare entity, but implantation sites of endometrial tissue such as gastrointestinal tract, urinary tract, upper and lower respiratory system, diaphragm, pleura, pericardium and abdominal wall have been reported in the scientific literature [12].

Endometriosis does not have a specific treatment, so contraceptive steroids, non-steroidal anti-inflammatory medication and painkillers are used, depending on the symptoms of each individual. Surgery can also be an efficient solution for removing the lesions and especially in emergencies where exploratory laparoscopy or laparotomy is mandatory because of the uncertainty of diagnosis.

Case presentation

We present the case of a 42-year-old woman who came to the Emergency Department with nausea, vomiting, diffuse abdominal pain and absence of stool for 10 days. The symptoms debuted 10 days prior her admission and worsened in the past 24 hours.

Clinical examination revealed diffuse abdominal pain both spontaneously and when palpated, with maximum intensity in the hypogastric region, with signs of abdominal guarding. The digital rectal examination showed an empty lower rectal cavity, without any lesions about 6 cm from the external anal sphincter.

Initial blood tests revealed leukocytosis (16,55 m/mm³) with neutrophilia (78,5%). There were no other significant changes in the blood tests.

The conventional X-ray examination of the abdominal region showed "air-fluid" levels and intense intestinal distension (Figure 2).

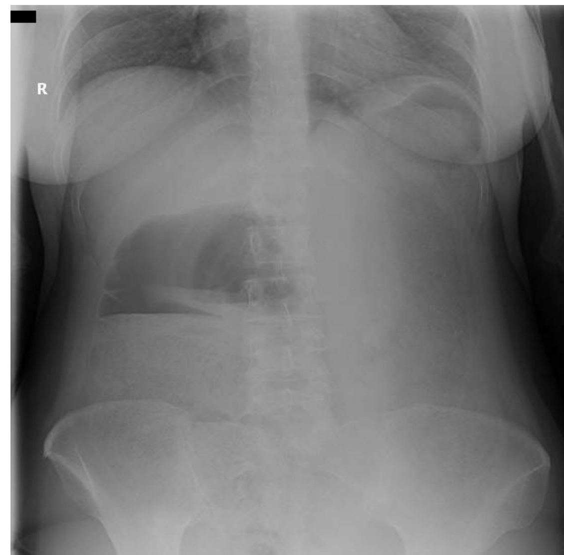

Figure 2 - "Air-fluid" level and intestinal distension

The patient clinical presentation and the paraclinical examination led us to diagnose an acute abdomen and the patient was scheduled for emergency surgery.

Intraoperative, we ascertain high quantity of purulent liquid, intense colonic distension and, at the recto-sigmoid junction, a stenotic, perforated tumor with 5 cm diameter. No other lesions were found at the macroscopic examination of the peritoneal cavity. A segmental recto- a sigmoid resection with colostomy – Hartmann procedure was performed.

The resected segment was sent to histopathological examination. The result described intramural endometriosis (Figure 3).

The patient's evolution was favorable, the clinical symptoms disappeared and the blood tests normalized after a few days. The patient remained stable in the postoperative period and came back after 3 months for colostomy reversal.

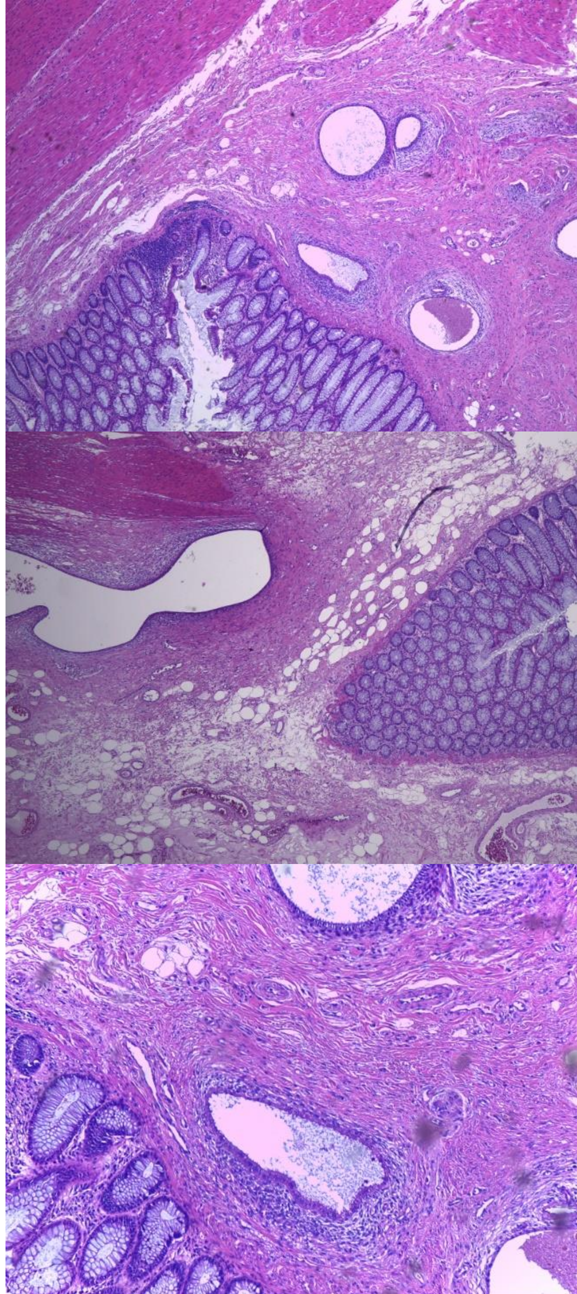

Figure 3 - Colonic endometriosis HE 10X

Discussions

Intestinal obstruction is one of the most common surgical emergency, being associated with high morbidity and mortality [13]. The main cause of large bowel occlusion is cancer in about 60% of the cases [14]; intestinal volvulus and diverticular disease are responsible for 30% of the cases [15].

Endometriosis is a benign gynecological pathology, the large intestine being the most affected extragenital site [16]. Even though is common to find endometriosis lesions in the gastro-intestinal system, the disease is rarely a cause of acute large bowel obstruction [17]. The usual symptoms of endometriosis include chronic pelvic pain, dysmenorrhea, dyspareunia [11]. The large bowel endometriosis has no pathognomonic symptoms such as rectal bleeding, non-specific abdominal pain, constipation, diarrhea, depending on the location [17] [18].

Differential diagnosis, especially in emergencies such as intestinal obstruction, is extremely difficult. The clinical presentation and the macroscopic appearance of the tumor may misled the surgeon who may raise the suspicion of adenocarcinoma, as we encounter, a common mistake as cited in literature [17] [19] [20-21]. The gold standard procedure in this situation is exploratory laparoscopy and the resection of the occlusive tumor with healthy margins. In our particular situation, we chose laparotomy because of the generalized peritonitis associated with the perforated tumor.

Conclusions

In conclusion, endometriosis, even though considered an extremely rare cause of intestinal obstruction, should be taken into consideration as a differential diagnosis whenever we encounter a female patient in her reproductive years with gastro-intestinal symptoms and a recto-sigmoid tumor, being one of the most frequent site of intestinal endometriosis.

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