Case Reports

Journal of INTERNATIONAL MEDICAL RESEARCH

Journal of International Medical Research
2023, Vol. 51(12) 1–6

DOI: 10.1177/03000605231191584
journals.sagepub.com/home/imr
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Deep endometriosis of ileocecum complicated by acute intestinal obstruction: a case report

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Abstract

Endometriosis is a frequent gynecological pathology. Digestive localization complicated by acute intestinal obstruction is exceptionally rare. We herein report a case involving a 48-year-old woman who had a long-term history of endometriosis symptoms. She was diagnosed with endometriosis by ultrasound 1 month before her admission to the emergency room with acute intestinal obstruction. The diagnosis was confirmed by histopathological examination following surgical resection. Further medical management resulted in a satisfactory outcome.

Keywords

Endometriosis, acute intestinal obstruction, deep endometriosis, ileocecum, surgical resection, case report

Date received: 30 September 2023; accepted: 21 June 2023

Introduction

Endometriosis is a frequent gynecological pathology affecting 5% to 10% of women. It is defined as the presence of endometrium-like epithelial cells and/or stroma located outside the uterus.[1] Superficial endometriosis is defined as endometriosis affecting only the peritoneal surface or the uterine serosa; an endometrioma is an endometriotic ovarian cyst; deep endometriosis is characterized by damage to the digestive tract, rectovaginal septum, bladder, ureter, uterosacral ligaments, or diaphragmatic dome; and

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adenomyosis is characterized by damage to the uterine myometrium. The symptoms associated with endometriosis are varied and nonspecific, but catamenial pain is characteristic.[2]

Digestive localization of endometriosis, particularly the rectum, sigmoid colon, appendix, and cecum, is relatively common. The symptomatology is generally governed by the menstrual cycles and variations in blood estrogen levels. This is a severe form of endometriosis characterized by fibrous lesions that infiltrate the wall of the digestive tract and lead to fibromuscular proliferation, which thickens the wall and progressively obliterates the lumen. In its extreme forms, colorectal endometriosis can lead to sub-occlusion or occlusion phenomena in the rectum, sigmoid colon, ileocecal junction, or terminal ileum.[3]

We herein report a case of deep endometriosis complicated by acute occlusive syndrome. This type of endometriosis is rare. Therefore, the aim of the present report is to emphasize the need for proper radiological exploration of deep endometriosis, which is underdiagnosed, before it becomes complicated and compromises the patient's prognosis. The management of this type of endometriosis must be multidisciplinary, involving a gynecologist, visceral specialist, and anatomic pathologist.

Case report

The patient described in this report was a 48-year-old woman (gravida 3, para 3) with three living children. Her last delivery was performed 17 years previously by emergency caesarean section because of cord prolapse.

The patient presented with a 10-year history of disabling dysmenorrhea, deep dyspareunia associated with diffuse abdominal colic, and chronic pain with recent aggravation. The diagnosis of endometrioma with adenomyosis was made by pelvic ultrasound, and the patient was lost to follow-up.

One month later, she presented to the emergency room because of a 5-day history of cessation of flatus and bowel movements associated with diffuse abdominal pain and vomiting. On clinical examination, the patient was hemodynamically stable but exhibited abdominal distension with generalized contracture. She had an empty rectal ampulla on rectal examination.

Plain abdominal X-ray examination revealed peripheral air–fluid levels (Figure 1). Magnetic resonance imaging showed multiple bilateral ovarian endometriomas and pelvic peritoneal implants and adhesions, some of which were attached to the ovarian surface. A 9-mm nodule was present at the level of the ileocolic junction. The implants and adhesions infiltrated the right side of the bowel, resulting in acute intestinal obstruction (Figures 2a, 2b). Blood tests revealed a hemoglobin concentration of 12.6 g/dL, white blood cell count of 9720 cells/μL, platelet count of 360,000 cells/μL, C-reactive protein concentration of 127 mg/L, blood urea nitrogen concentration of 0.29 g/L, creatinine concentration of

Figure 1. Plain abdominal X-ray showing peripheral air–fluid levels.

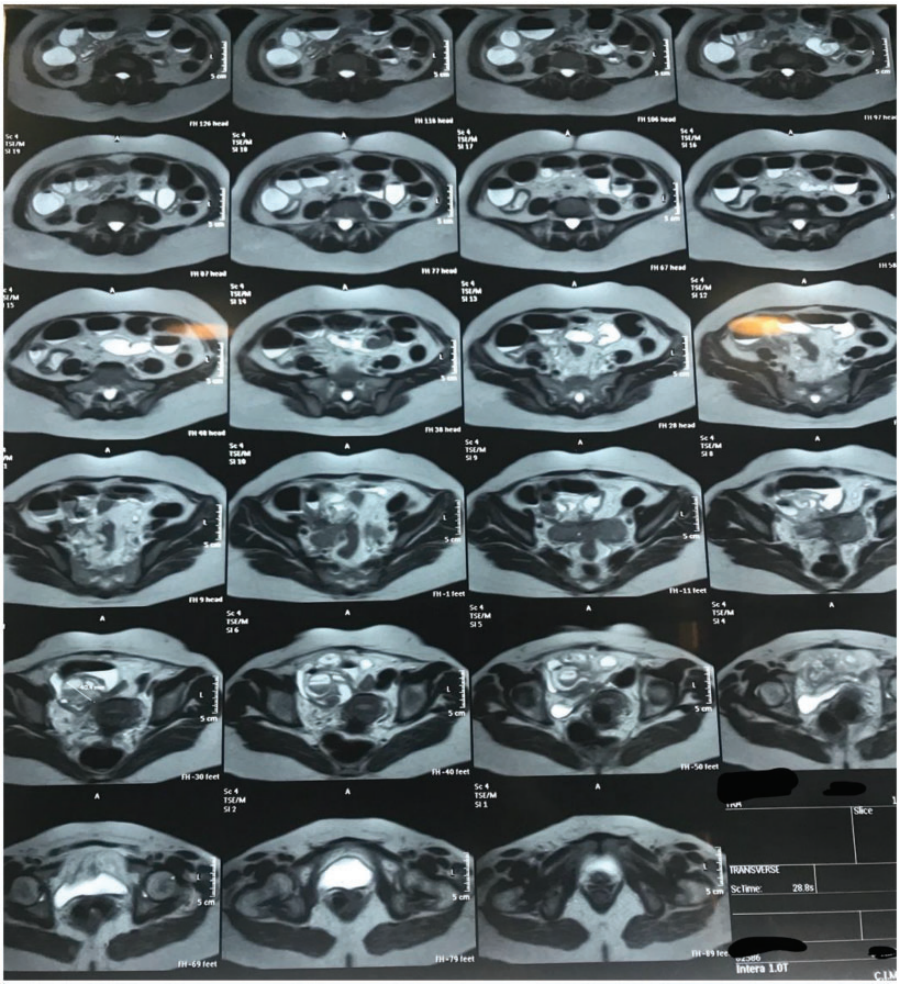

Figure 2. (a, b) Magnetic resonance imaging showing bilateral ovarian endometriomas associated with uterine, superficial, and deep peritoneal endometriosis.

5.92 mg/L, and high lipase concentration of 111 U/L. An electrolyte panel was normal.

After the patient had provided consent for treatment, she was transferred to the operating room for exploratory median laparotomy. Exploration revealed generalized peritonitis with perforation of the last ileal loop and false membranes covering the cecum, bladder, uterus, and right adnexa. Moderate hemoperitoneum was also present. The patient underwent ileocecal resection with removal of the right adnexa and bowel perforation (Figure 3). An ileostomy was performed in the left flank, and two drains were placed. Postoperative follow-up was uneventful. The patient was treated with triple antibiotic therapy, rehydration, a proton pump inhibitor, and an exclusively liquid diet.

The anatomopathological examination revealed endometriosis localized at the level of the ileocecal subserosa, associated with large hemorrhagic reorganizations; colitis and chronic nonspecific ileitis; tubal inflammation; and a right ovarian endometrioma.

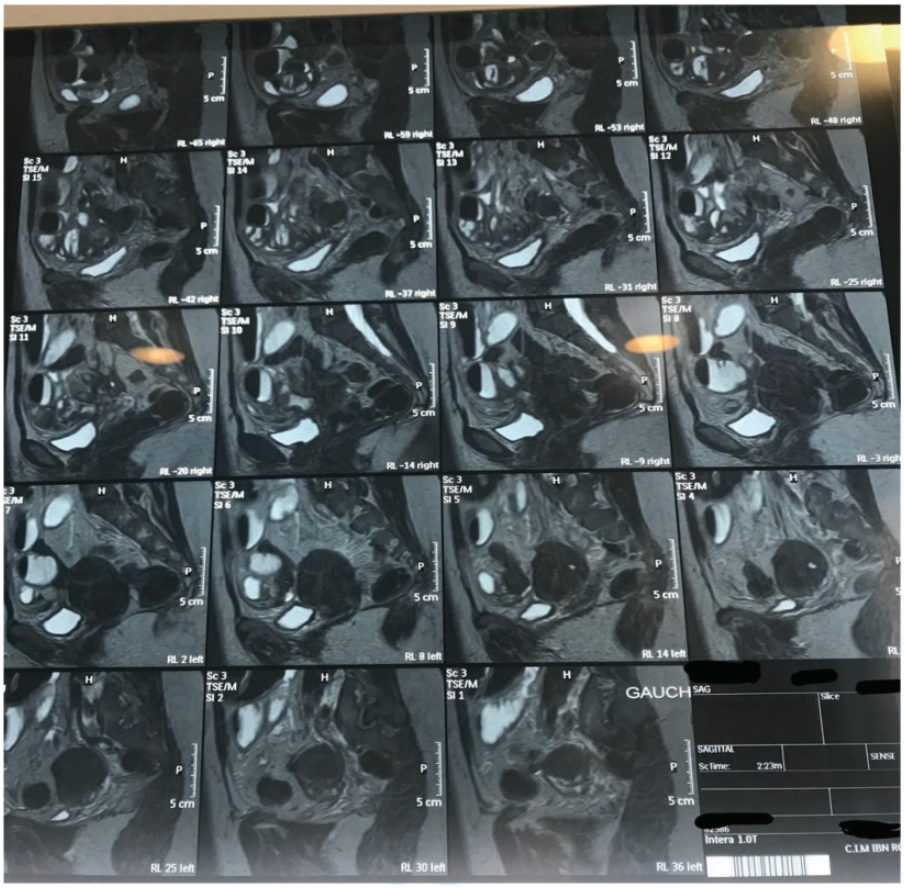

Figure 3. Surgical specimen containing the right adnexa and the bowel perforation.

Three months later, pelvic MRI showed uterine, ovarian, and superficial endometriosis with no sign of digestive involvement. Continuity of bowel function was restored, and continuous progesterone hormonal treatment was begun. However, the patient showed no clinical improvement. Therefore, she began treatment with a gonadotropin-releasing hormone agonist. The outcome was favorable with almost total disappearance of the pain.

Discussion

Endometriosis of the digestive tract affects 4% to 30% of women with endometriosis. Sigmoidal and rectal locations are among the most frequent; rectal lesions are found in 10% to 93% of digestive lesions and sigmoidal lesions in 33% to 60%.[4] We have reported a case of acute intestinal occlusion of endometriosis in an exceptional location; i.e., the patient was diagnosed with ileocecal endometriosis.

In digestive tract endometriosis, initially superficial peritoneal lesions progressively infiltrate the peritoneum and the wall of the digestive tract to reach the muscularis, which is the subsequent site of fibrous reorganization with formation of adhesions.[4]

Several theories have been developed to explain the origin of ectopic growth of

endometrial tissue. The theory initially developed by Sampson[5] in 1927 proposed that such tissue arises from retrograde menstruation, a physiological process occurring in more than 76% of women. This phenomenon is characterized by the estrogen-dependent endometrial fragments present in menstruation traveling up the fallopian tubes into the pelvic cavity to implant and form endometriotic lesions.[6]

Research has demonstrated that the symptomatology of endometriosis is directly related to the location of the lesions.[7] Similarly, pain is related to the depth of lesion infiltration (>6 mm).[8]

Diagnosis

The digestive symptoms associated with deep endometriosis are varied but nonspecific; they include pelvic pain or heaviness, rectal bleeding, and gastrointestinal transit disorders such as constipation or alternating diarrhea and constipation. The only evocative element of the diagnosis is the cyclic character of the symptoms with worsening during menstruation.

Our patient reported a typical symptomatology of adenomyosis characterized by chronic abdominal colic that worsened during menstruation and become more severe with time. Although these signs had been present in our patient for several years, she had opted for self-medication for the painful episodes, especially during menstruation.

Radiology

Although the clinical signs are suggestive, they are not specific for the disease. Therefore, ancillary examinations are important. The first examination of choice is endovaginal ultrasound. The sensitivity and specificity of this technique ranges from 83% to 97% in the diagnosis of deep endometriosis.[9,10]

Once the diagnosis has been established, MRI can aid in determining the exact location and extent of disease. In our case, MRI could not be performed until the patient was admitted to the emergency room because she had been lost to follow-up. Her history of endometriosis clinically diagnosed 1 month previously supported the need to perform emergency MRI, which showed bilateral ovarian endometriomas associated with superficial and deep peritoneal endometriosis as well as several implants and peritoneal adhesions infiltrating the bowel loops. These implants and adhesions may have been responsible for the acute bowel obstruction.

Treatment

Surgical treatment of colorectal endometriosis decreases the severity of gynecological, digestive, and general symptoms as well as the patient's quality of life as evaluated using general or specific quality of life questionnaires. The laparoscopic approach should be chosen over laparotomy for the surgical management of patients with colorectal endometriosis (grade B).[11] For our patient, we opted for ileocecal resection by emergency median laparotomy.

In addition to surgery, medical treatment aimed at amenorrheic therapy is recommended to limit the incidence of recurrence and improve pain.[12] Our patient was initially treated with oral progestogen, resulting in secondary amenorrhea. Her disease course was characterized by the persistence of disabling chronic pelvic pain despite the hormonal treatment; therefore, we switcher her therapy to a gonadotropin-releasing hormone agonist. The outcome was favorable, with total disappearance of the pain.

Conclusion

Occlusive complications of digestive endometriosis are exceptionally rare and most

commonly exhibit rectal and sigmoidal localization; ileocecal localization is even rarer. Although endometriosis is often underdiagnosed or diagnosed late, early management is essential, especially because the initiation of continuous hormonal treatment is urgently required in such patients. Management of deep endometriosis must be multidisciplinary, involving gynecologists, visceral surgeons, radiologists, and anatomic pathologists. With respect to patients wishing to become pregnant, it has not been proven that surgical treatment of deep endometriosis impacts fertility.

Declaration of competing interests

The authors declare no conflict of interest.

Ethics statement

Patient consent for publication of this report was not required because no personal information or details are included. This study was approved by our University Human Research Ethics Committee [Comité d'Ethique pour la Recherche Biomédicale d'Oujda (CERBO)], whose judgment follows the following codes: Nuremberg's code, Belmont report, Manille's statement, Helsinki declaration, and the Moroccan Law No. 09-08 promulgated by Dahir No. 1-09-15 of 22 Safar 1430 (18 February 2009).

Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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