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Rectal Endometriosis Simulating a Stromal Tumor of the Rectum

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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Case Study

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ABSTRACT

Introduction: Digestive endometriosis is one of the most severe forms of deep endometriosis, the rectum and sigmoid are most often affected, its clinical diagnosis is most often difficult due to the non-specificity of its clinical signs.
Case Report: We report the case of a 44-year old female patient who presented with chronic pelvic pain, dysuria, frequency and constipation. hysterectomized for a polymyomatous uterusClinical examinations revealed the presence of a mass at the pelvic level which arrives at the intimate contact of the sigmoid with loss of the fatty border of separation by place, The patient benefited from an anterior colorectal resection taking away the pelvic mass and The appendages to the uterus in monobloc with a colorectal anastomosis, with a protective ileostomy and a pelvic drainage. The postoperative follow-up of the patient was simple with an ablation of the salem probe at d4 and the patient was discharged at d6 postoperatively. The anapath of the surgical specimen showed a morphological aspect in favor of endometriosis.
Discussion: Rectal endometriosis is most often misdiagnosed as cancer of the rectum due mainly to a superficial clinical and paraclinical examination, hence the need for thorough investigations
Conclusion: Rectal endometriosis should always be considered as one of the differential diagnoses in women with a mass in the rectum. A good specimen is necessary to confirm the histopathologic diagnosis.

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Keywords: Colorectal endometriosis (CRE); rectosigmoid resection; complications; fertility; quality of life.

1. INTRODUCTION

Endometriosis is a gynecological condition defined by the presence of endometrial glands and stroma outside the uterus [1]. It is estimated to affect 10 to 15% of women of childbearing age [2]. Deep endometriosis is defined by the infiltration of anatomical structures and organs by endometriotic lesions characterized by the presence of endometrial implants associated with fibrosis and muscle hyperplasia. The various locations of deep endometriosis in decreasing order of frequency are the uterosacral ligaments, rectosigmoid, vagina and bladder [3]. Digestive endometriosis is one of the most serious forms of deep endometriosis and is thought to affect up to 12% of patients with endometriosis [4]. The rectum and rectosigmoid represent up to 93% of all intestinal lesions in endometriosis [5].

2. CASE REPORT

Patient aged 44 years, hysterectomized with conservation of the appendices in 2012 for a polymyomatous uterus with onanapathic examination: simple endometrial hyperplasia,uterine adenomyosis with interstitial uterine leiomyomas, absence of malignancy on the material examined.

Whose disease history goes back to 1 year before her admission with the installation of bilateral pelvic and lumbar pains with notion of constipation associated with dysuria and pollakiuria without vomiting nor externalized digestive hemorrhages, the whole evolving in a context of apyrexia and alteration of the general state made of unquantified slimming.

The clinical examination revealed a painless hypogastric mass, renal, measuring 15 cm of long axis fixed in relation to the deep plane, without hepatomegaly or splenomegaly. The rectal examination was normal, and the vaginal examination was not done because the patient was a virgin.

The rest of the somatic examination was unremarkable.

The patient underwent rectosigmoidoscopy which revealed an extrinsic compression aspect 10 cm from the anal margin.

The thoracoabdomino-pelvic CT scan showed a hypodense mass with irregular contours and heterogeneous enhancement after PDC injection. It measures 78x71 mm extended on 60 mm, this mass arrives at the intimate contact of the sigmoid with loss of the fatty separation edge by place (Fig. 1).

The patient benefited from a Double J ureteral stent a Control KUB X-ray: Double J ureteral stent in place (Fig. 2).

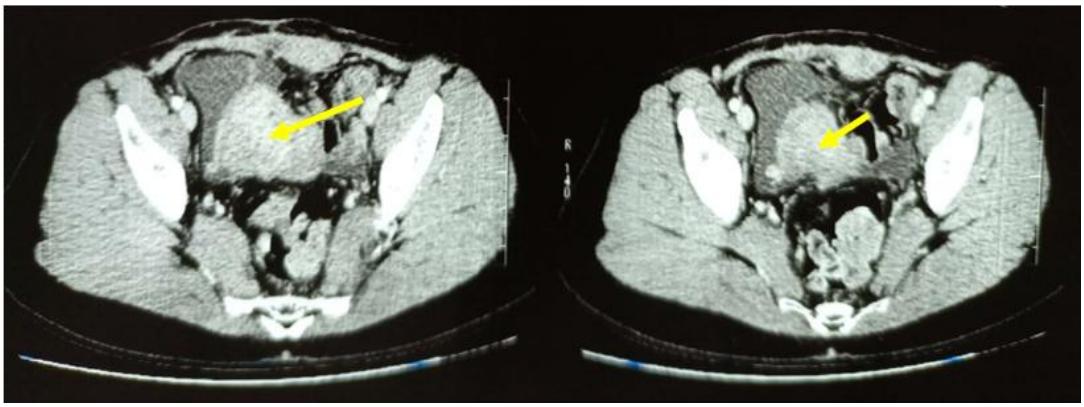

Fig. 1. CT cross-section showing a pelvic mass lateralized to the right (arrow)

Tumor markers assay are as follows:

- *CA 19.9 : 18.4IU/ml,*
- *ACE : 2.7ng/ml,*
- *CA 125: 79 IU/ml.*

She was subsequently prepared for surgery. Some of the important intra-operative findings include: Presence of a pelvic tumor mass adherent to the posterior aspect of the bladder, to the right and left iliac vessels, to the right and left ureters, and to the 2 right and left fallopian tubes, this mass is at the expense of the rectosigmoid hinge. (Fig. 3), presence of bilateralparatubalcysts.

The patient underwent an anterior colorectal resection removing the pelvic mass and appendages en blocwith a colorectal anastomosis using 33mm circular forceps. She also had a protective Ileostomy and pelvic drainage by Salem tube.

The postoperative follow-up of the patient was simple with a removal of the salem probe on day 4 and the patient was discharged on day 6 postoperatively.

The histology of the surgical specimen showed an endometriosis of complete exeresis without sign of malignancy. The distal and proximal resection limits were oedematous but devoid of malignant cells while fluid from an ovarian cyst was inflammatory..

Fig. 2. Control KUB X ray showing double J stent in place (Arrow)

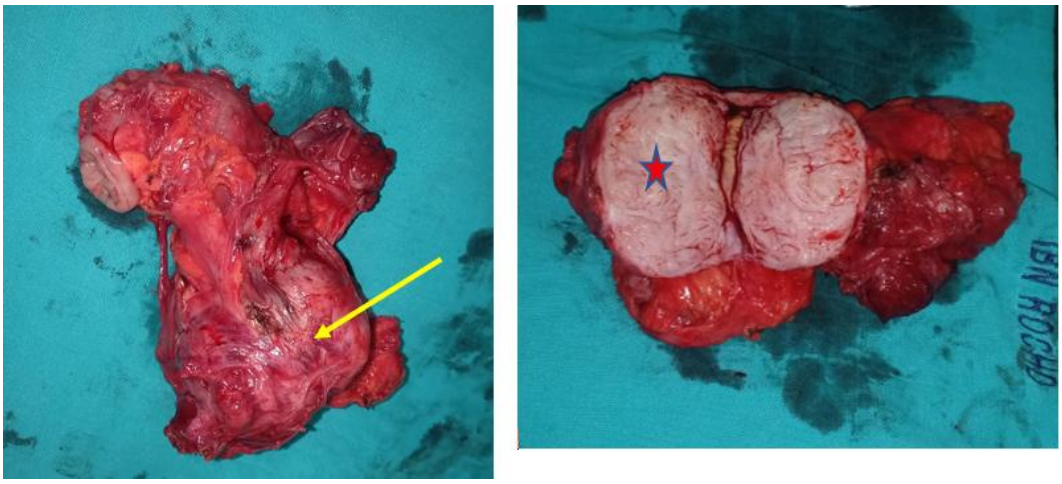

Fig. 3. Image of the surgical specimen showing the mass (arrow) opening of the mass (star)

3. DISCUSSION

Digestive endometriosis is defined by endometrial infiltration of the digestive muscularis [1]. It represents 8 to 12% of endometrioses [4] and its prevalence increases with the severity of the pelvic involvement, reaching 50% in American Fertility Society (AFS) stage IV [6]. The proximity of the genital tract places recto-sigmoid and ileo-caeco-appendicular involvement in the foreground. Thus, sigmoidal involvement represents 60% of digestive involvement, ileo-caecal involvement 25% and rectal involvement 15% [4]. In the majority of cases, digestive endometriosis is part of a deep, severe and multifocal endometrial disease [7]. Deep pelvic endometriosis lesions are associated in 70% of cases, and adnexal lesions are associated in 80% of cases [7].

Risk factors include certain characteristics of the menstrual cycle or genital life leading to hyperoestrogenism (early menarche and/or late menopause, nulliparity or late first pregnancy, short menstrual cycles, hypermenorrhea, menorrhagia) could, however, favor the development of ectopic lesions [8-9] . Smoking and a high body mass index seem, on the contrary, to protect against the disease [10-11]. More recently, the involvement of certain toxic agents such as dioxin [12] or endocrine disruptors has been incriminated. In the index patient, nulliparity and hypermenorrhoea were identified as the risk factors.

Similar to the development of the tumor process, ectopic implantation of endometrial cells requires complex interactions between the host tissue and endometrial epithelial cells and probably stromal cells [13]. In endometriosis, endometrial cells must also survive outside the uterine cavity, implant, escape the immune system, induce angiogenesis, lymphangiogenesis, and then proliferate [14]. During these processes, endometrial cells interact with host cells in surrounding tissues. These include epithelial cells of the mesothelium and ovary, fibroblasts, endothelial cells, leukocytes and macrophages.

Histologically, deep nodular lesions are characterized by the presence of endometrial glands, rarefied endometrial stromal cells, and significant fibromuscular hyperplasia. These lesions are also the site of angiogenesis and lymphangiogenesis as in tumor processes [15].

The implantation of endometriosis nodules in the colon and/or rectum characterizes colorectal endometriosis. The involvement is initially superficial, only serous, in the form of small, blue or blackish nodules, in clusters or spaced out, then the nodules increase in size and progressively infiltrate the muscular wall of the digestive tract concerned [13,16].

The symptomatology of digestive endometriosis is characterized by pain with perimenstrual recrudescence, most often in a context of infertility. Painful constipation and dyschezia are the most frequent signs of recto-sigmoid involvement. The classic catamenial rectal bleeding is observed in only 10 to 31% of cases [4,17].

However, the symptoms of digestive involvement are not very specific, which explains the frequently reported delay in diagnosis. This is why the diagnosis of deep pelvic endometriosis associating dysmenorrhoea, deep dyspareunia and chronic pelvic pain must systematically lead to a search for digestive or urological involvement [18,19].

When the rectum is affected, the lesion is most often subperitoneal, accessible on clinical examination. The rectal examination reveals a mass embedded in the anterior rectal wall respecting the mucosa. The reawakening of pain on close palpation of the lesion is an argument in favour of the diagnosis [20]. The rectal examination in our patient was unremarkable as the lesion concerned the recto-sigmoid hinge. The limitations of the clinical examination require a complete imaging work-up [20]. The CT scan (which was performed in our patient) allows to specify certain ureteral localizations. It allows multi-planar reconstructions and curved measurement of distances between lesions and anatomical landmarks including the anal margin and ileocaecal valve. It is less sensitive than MRI to peristalsis and residual material. Its limitation in women wishing to become pregnant is the radiation [21].

This is the reference examination for the diagnosis of infiltration of the rectal muscularis with a sensitivity of over 97% and a specificity of over 85% [22]. However, it is much less efficient for the precise topographical diagnosis of the digestive lesion or for the diagnosis of extra-digestive pelvic involvement. Our patient did not benefit from an echo-endoscopy, but a recto sigmoidoscopy was performed.

Control of the painful symptoms [23,24] and prevention of recurrence requires exeresis of all the digestive endometriosis lesions and all the associated deep pelvic, urological, genital and peritoneal endometriosis lesions.

Surgical treatment of rectal endometriosis must therefore be based on radical treatment consisting of real "R0 carcinological surgery" of all the macroscopic lesions of endometriosis, with the aim of preserving fertility [25]. On the digestive side, excision of the lesion is transmural and requires segmental resection in the vast majority of cases. Anovulatory hormonal treatment is started one month before the operation [26]. However, in our case, the diagnosis was only made postoperatively on the surgical specimen.

The most frequently performed operation is an anterior resection of the rectum removing the descending portion of the sigmoid colon. A gynecological procedure associated with the colorectal resection is necessary in most cases. For most authors, there is no indication for a bilateral oophorectomy in principle [27]. Our patient had an anterior colorectal resection removing the pelvic mass and adnexa in monobloc with a colorectal anastomosis.

The benefit of postoperative medical treatment of endometriosis has not been proven. In the RCT, the benefit of postoperative treatment was not studied. The only notions established concern GH-RH agonists, which do not reduce the rate of recurrence, but lengthen the delay in their occurrence and reduce painful recurrences [27]. Our patient did not benefit from postoperative medical treatment.

4. CONCLUSION

Colorectal endometriosis is not uncommon in patients with advanced pelvic endometriosis. A high index of suspicion is required along with meticulous clinical examination including proctoscopy , imaging and laparoscopy maybe required in order to make the diagnosis.. Complete surgical excision alongside with hormonal therapy are the standard of treatment for deep colorectal endometriosis.There is usually a positive outcome in these patients if managed approporiately and timely.

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

CONSENT

As per international standard or university standard, patients' written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Author has declared that no competing interests exist.

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