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Endometriosis of the Rectus Abdominis Muscle a Case Report and Review of the Literature

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Abstract **Case Report**

Endometriosis is defined as the presence of ectopic functioning endometrial tissue outside the uterine cavity, the abdominal wall, especially the rectus abdominis muscle, is an uncommon site of extra pelvic endometriosis. It usually develops in a previous surgical scar. We propose during this work and through a case of the rectus abdominis endometrioma reported at the service of visceral surgeryI HMIMV, to review in a rather exhaustive, specific epidemiological, clinical, para clinical and therapeutict of the parietal endometriosis, in the light of contemporary literature.

Keywords: Endometriosis, Rectus abdominis muscle, Cesarean, Diagnosis, Treatment.

INTRODUCTION

The parietal Endometriosis is characterized by its prevalence among women in the fourth decade of life, on a favorable ground of antecedents of abdominal or gynecological surgery.

The presence of endometrial mucosa outside its usual site (uterine cavity) defines external endometriosis. Parietal localization is a rare entity. It occurs most often in surgical scars with hysterotomy, and affects 0.03 to 0.4% of caesarean section scars [1]. It is part of the small proportion of endometriosis considered as iatrogenic [2] and its etiopathogeneses remains unclear [3]. We report a new case of endometriosis located in the abdominal wall, through which and in the light of a review of the literature we will insist on all the characteristics of this entity, in particular its prognosis, which will allow the practitioner to understand the interest of early diagnosis and management of this entity - for which we never think enough in front of a parietal mass - and of its prevention during each gynecological surgery.

We propose during this work and through a case of the rectus abdominis endometrioma reported at the service of visceral surgery I HMIMV, to review in a rather exhaustive, specific epidemiological, clinical, para clinical and therapeutic of the parietal endometriosis, in the light of contemporary literature.

MATERIALS AND METHODS

Type of study: Our work concerns an observation of a patient presenting a Mass of the abdominal wall, treated in the department of visceral surgery at the Military Hospital of Rabat. The objective is to discuss the different aspects of this pathology.

Patient Observation

34 years old, married, mother of three children, no diabetes or hypertension, no immunodeficiency. patient reports no medical history and no toxic habits. She was operating 3 caesarean sections, the last one 2 years ago.

The onset of the symptomatology dates back to one and a half years ago with the installation of a periodic, abdominal pain, located at the right para-umbilical level, without patient in good general condition with palpation of a firm, mobile, slightly tender mass in the peri-umbilical region, 6 cm in size, located to the right of the midline and para-umbilical.

The rest of the somatic examination was unremarkable. Faced with this picture of periodic

abdominal pain in a woman who had undergone caesarean section 3 times, our patient underwent an abdominal ultrasound scan, which revealed a parietal image with a poly-lobed tissue appearance and central arteriovenous vascularity on the color Doppler scan, giving rise to the discussion of an endometriotic mass or a soft tissue tumor.

Then the patient underwent an abdominopelvic CT scan with injection, which showed the presence of a right parietal mass, involving the right muscle, just above the right iliac crest, measuring 4.5x2x4.1cm in diameter, discreetly hypodense, moderately and progressively enhancing without CT signs of hemorrhage within it. The CT appearance suggests endometriosis to be confirmed by a complementary MRI.

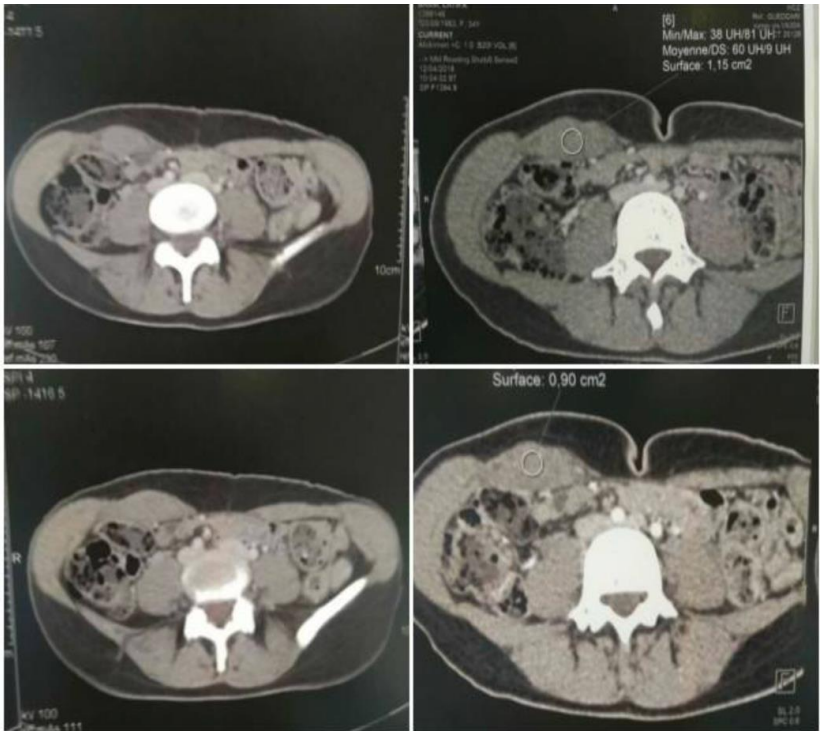

Figure 1: CT images demonstrating the size and location of the mass

Figure 2: CT image of a sagittal section showing the location of the mass

MRI showed the presence of a tissue mass within the rectus abdominis muscle lateralized to the right in T1 isosignal to the muscle and T2 hypersignal and diffusion enhancing intensely, early and gradually. It is well limited oval measuring 61mm(H) x 40mm(T) x 21 (AP). It takes the epigastric artery; an aspect suggestive of a hypervascular mass of the rectus muscle that may correspond to an endometriosis to be compared with the histological exams.

Figure 3: Images demonstrating the size and location of the mass

The treatment was a median laparotomy is performed allowing the excision of the entire mass.

Figure 4: Parietal endometrioma removal specimen

The anatomopathological study of the surgical specimen confirmed the diagnosis of parietal endometriosis. The postoperative course was simple with a good clinical and radiological evolution. There was no sign of recurrence after three years.

DISCUSSION

Parietal localization of endometriosis most often occurs on the scars of gynecological or obstetrical surgical procedures (curettage, episiotomy, cesarean section, hysterectomy with ovarian conservation....) [4, 5].

This damage is thought to be due to direct grafting of endometrial cells onto the abdominal wall during uterine perforation or rupture, amniocentesis, episiotomy, see gynecological laparoscopic procedures or after cesarean section.

Parietal endometriosis complicates 0.03 to 0.4% of cesarean sections. Other studies state that 57% of cases with this condition were associated with a previous cesarean section.

The scars involved are at the level of the Pfannentiel incisions, but also of median laparotomy under the umbilical, less practiced nowadays [6, 7].

Hysterotomy followed by feto-placental extraction during caesarean section favours contact between the endometrial cells and the detached or traumatized musculoaponeurotic zones of the abdominal wall. On the other hand, postoperative inflammatory and scarring sites could constitute favorable environments where the endometrial cells proliferate and end up becoming autonomous. The same symptoms as pelvic endometriosis are then observed in the abdominal wall [8, 9].

CONCLUSION

The rectus abdominis is an atypical location of endometriosis, it is a rare entity that usually develops after abdomino-pelvic surgery, most often on a caesarean section scar, more rarely after hysterectomy, appendectomy or on a laparoscopic trocar insertion hole.

Various pathophysiological theories concerning the origin of endometriosis have been proposed, but none is clearly established and the subject remains controversial. It is a poorly understood pathology, most often suffering from a great delay in diagnosis.

The presence of a history such as pelvic endometriosis or gynaecological or abdominal surgery, as well as the very anal and catamenial nature of the lesion, may facilitate the diagnosis. If this is the case, the diagnosis will only be made at the anatomical-pathological stage.

The examination of choice in the diagnostic orientation remains parietal ultrasound, which allows both to confirm the parietal origin of the lesion (typically intra-muscular) and to eliminate differential diagnoses.

The CT scan and the magnetic resonance allow to orient the diagnosis without allowing a formal diagnosis because only the anatomopathology allows the confirmation.

Because of the functional, aesthetic and psychological damage that these abdominal wall nodules can cause, treatment is often necessary.

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