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Endometriosis on Caesarean Section Scar: About Two Cases

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Abstract: ***Endometriosis of the abdominal wall is a rare disease that usually develops on a cesarean section scar. Although frequently observed in the cutaneous and subcutaneous adipose tissue opposite the caesarean scar, its intramuscular localization is possible but remains rare. Treatment is based on surgical removal of the lesion with or without hormonal therapy. Wide surgical excision remains the treatment of choice for the disease but exposes the risk of herniation of the abdominal wall. We report two cases of parietal endometriosis occurring after a Pfannstiel scar for caesarean section collected in the department of obstetrics gynecology at the Mohamed 5 military hospitalin Rabat.***

Keywords: nodule - endometriosis - scar–caesarean

1. Introduction

Endometriosis is defined as the abnormal implantation of functional endometrial epithelium with stroma outside the uterine cavity. It affects women during their genital activity with a prevalence of 10%. Its main locations are endopelvic, mainly involving the internal genital organs (ovaries, fallopian tubes, myometrium), the utero sacral ligaments, the broad ligament and the bladder. Localization in the extragenital organs is less well described. Parietal endometriosis is a rare clinical entity; its occurrence in postoperative scars, in particular Pfannstiel scars, is even less rare (0.03 to 0.4% of all endometriosis) but constitutes the most frequent parietal location [1]. It is suspected on the basis of a number of clinical and radiological arguments, but its confirmation remains histological. Parietal endometriosis reveals a surgical treatment. We report two observations of parietal endometriosis occurring on Pfannstiel scars collected in the surgical department of the Mohamed 5 Military Hospital in Rabat.

2. Patient and Observation

Observation 1

Patient information: the patient is 28 years old, without any notable history; G3P2, she had two deliveries by caesarean section, the last one in 2019, not known to be a genitopelvic endometriosis carrier; she consulted for a 3cm painful swelling at the level of Pfannstiel's scar, evolving for 6 months. The history found a catamenial character of the symptomatology: exacerbation of pain during menstruation, without any notion of dysmenorrhea, dysuria or dyspareunia. Moreover, the patient reported a cyclic increase in the volume of the mass during menstruation. diagnostic approach: ultrasound of the soft tissue found a hypoechoic heterogeneous lesion of 18 mm, located on the left side of the pelvic scar (figure 1). The diagnosis of endometriosis was strongly suggested by this set of anamnestic, clinical and para - clinical arguments and the decision was made to operate on the patient. The patient was operated on the old scar, the exploration had found a 3 cm nodule encrusted in the rectus muscle, the parietal mass had to be widely removed, taking away the part of the rectus muscle and its aponeurosis opposite the lesion. The anatomopathological study confirmed the diagnosis of parietal endometriosis by showing an endometriosis focus in the abdominal wall. The immediate postoperative follow - up was simple.

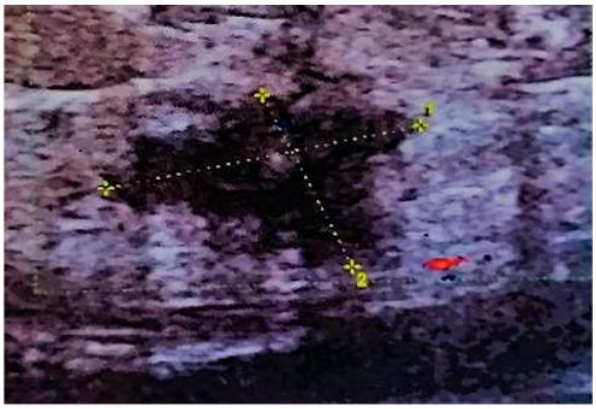

Figure 1: Ultrasound image showing the endometriosis nodule

Observation 2:

A 24 year old female patient, with a history of Mac Burney appendectomy at the age of 16, G2P2; 2 caesarean deliveries in 2014 and 2017, who presented 4 years before her admission, a painful nodule at the left angle of the Pfannenstiel scar with a cyclic exacerbation concomitant with menstruation, moreover she did not report similar pain in relation to the Mac Burney scar. Clinical examination: the examination had found a 2cm nodule at the left angle of the Pfannenstiel scar, the Mac Burney scar was solid and without abnormalities. A pelvic MRI was performed to better identify the lesions and to look for deep pelvic endometriosis lesions justifying a possible medical treatment. Pelvic MRI showed multiple endometriotic nodules over the entire caesarean section scar, including one measuring 17x19 mm embedded in the subcutaneous fat and in the thickness of the right and left rectus muscles (Figure 2). Moreover, there were no lesions in favour of deep pelvic endometriosis. the patient was operated on by a revision on the old scar, the exploration had found a 3 cm nodule

embedded in the rectus muscle and a large exeresis of the parietal mass taking away the part of the rectus muscle and its aponeurosis opposite the lesion. The anatomopathological study confirmed the diagnosis of parietal endometriosis by showing an endometriosis focus in the abdominal wall. Macroscopic anatomopathological examination revealed 2 fatty pieces with numerous haemorrhagic foci on section. The histological study confirmed the diagnosis of parietal endometriosis with the presence of glands bordered by a pseudo stratified epithelium with the presence of cytogenicchorion

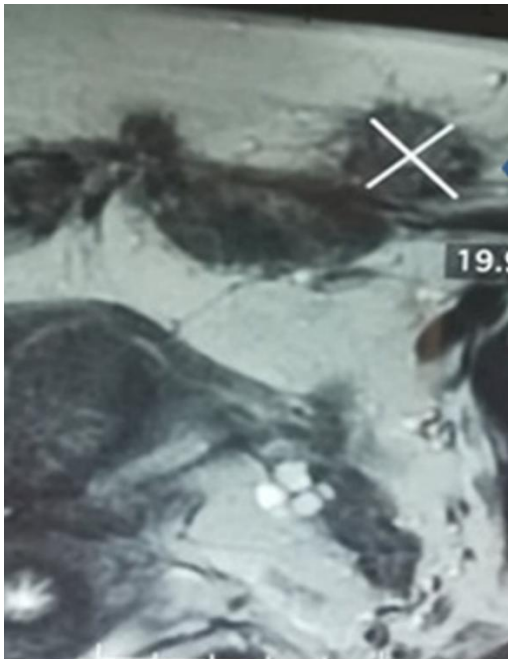

Figure 2: Coronal section of a T1 - weighted pelvic MRI fat saturation sequence; left paramedian nodule located on the cesarean scar measuring 17x19 mm

3. Discussion

Endometriosis is defined as ectopic implantation of the functional endometrial epithelium outside the uterine cavity [1]. It mainly affects women of childbearing age, with a peak around the age of 40 [1]. The main locations are pelvic. Parietal localization is rare. Localization on gynecological or obstetrical surgery scars is even rarer [1, 2]. The pathophysiology of endometriosis is still poorly elucidated and uncertain, but several theories have been put forward, including [1, 2]. Nevertheless, a few cases of cicatricial parietal endometriosis in menopausal women have been reported, probably related to the reactivation of lesions under hormone replacement therapy during menopause or in the case of oestrogen - secreting adrenal or ovarian tumours [3]. In contrast to other extragenital localizations (digestive or urinary), parietal endometriosis is associated with pelvic localizations in only 14.3 to 26% of cases [4]. In our context: parietal endometriosis can be explained by the implantation theory because it is an iatrogenic and involuntary dissemination of endometrial cells during abdominopelvic surgery. Clinically: the symptomatology of parietal endometriosis is essentially a painful mass with a catamenial character. This cyclical nature of the pain is an important element of orientation, but not essential for evoking the diagnosis. These signs may appear in the weeks or even years following the operation. However, the ultrasound appearance is not typical, the nodule may present as a well - limited hypoechoic tissue lesion vascularized on Doppler, sometimes as a cystic or mixed image [5]. The problem of differential diagnosis arises with granulomas on scars which can be confused with small endometriomas, haematoma, abscesses, ventrations but the clinical exa - menus are evocative, neurinomas, lipomas, epidermoid cysts and rarely malignant tumors (lymphoma, sarcomas) [4]. Pelvic CT or MRI to look for foci of pelvic endometriosis in the absence of suggestive clinical signs such as chronic pelvic pain is not justified given the infrequent association. They are justified in large and deep nodules for better leional mapping [3]. Indeed, the cystic/tissular appearance of the lesion depends on the hormonal impregnation according to the cycle. The fluid component was found on ultrasound in the first patient [6]. The interest of CT lies in the study of the deep invasion of the lesions. MRI is the examination of choice to be carried out; in search of deep endometrioticlesions indicating medical treatment associated with excisional surgery [6]. The reference treatment for parietal endometriosis is wide surgical excision from the outset, even if it means performing a parietoplasty to fill in the fascial dehiscence [7]. In our study, one of the patients had an isolated excision, the other one had an excision with a parietoplasty by plate. Although no benefit has been demonstrated, in case of laparotomy it is advisable to wash the scar abundantly and to change gloves before closing it. In the case of laparoscopy, to prevent endometriotic grafting on the trocar holes, it is good surgical practice to remove the operative parts in a protective bag in a systemic manner [7].

4. Conclusion

Parietal endometriosis is an infrequent pathological entity that is often unrecognized; the diagnosis is evoked on the basis of clinical and ultrasound arguments. MRI is only performed in case of diagnostic doubt. Only wide surgical excision allows healing without recurrence. Histological study is the key to confirm the diagnosis.

Conflicts of Interest

The authors declare no conflicts of interest.

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