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# Surgical Research

## Cicatricial Parietal Endometriosis: A Case Report of an Unusual Location

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#### **ABSTRACT**

Endometriosis of the abdominal wall is a rare pathology occurring after gynecological or obstetrical surgery. We report the case of a patient presenting with menstrual pain localised at the point of a caesarean scar. The clinical examination found a nodule located at the level of the right iliac fossa. The rest of the examination was normal. Computer tomography (CT) scan showed a nodular focus that has a long axis of 2.38 cm which is hypo dense, hence the decision to excise the lesion. After excision, the anatomo-pathological studies confirmed the diagnosis of endometriosis. An 18 months post-operative follow-up was done and there was no complication found, no recurrence of the mass or pain at the site of excision.

#### **Keywords**

Cesarean, Cicatricial parietal, Menstrual pain.

#### **Abbreviations**

CT: Computer Tomography, MRI: Magnetic Resonance Imaging.

### Introduction

Endometriosis is the presence of functional endometrial tissue outside the uterine cavity [1]. Its most frequent location is in the internal genitalia. The other extra-genital locations are less frequent. Its occurrence in scars from gynecological or obstetrical surgery is rare (0.03-0.4%) [2]. Through our case, we focus on the characteristics of this pathology, which will allow the practitioner to understand the interest of the diagnosis and the early management of this pathology as well as the possibility of its prevention during each gynecological or obstetrical surgery.

## **Patient and Observation**

A 32-year-old female patient with two children, who has been pregnant twice, giving birth by caesarean in both pregnancies with the last caesarean delivery dating back to 18 months. The patient complains of pain in the scar from the cesarean section

with the development of a mass gradually increasing in size. This pain is triggered by her menstruation. The abdominal examination revealed a small nodule that is difficult to palpate, fixed and sitting at the right end of the pfannenstiel incision. Abdomino-pelvic computer tomography (CT) scan showed a subcutaneous parietal nodule of  $2.38\times1.75$ cm that is poorly limited and locted at the right antero-lateral pelvic region. The lesion was hypodense with a little enhancement after injection of contrast agent (Figure 1). In this context a surgical excision was performed (Figure 2).

Treatment was based on an iterative incision to access the nodule. The mass was removed in one piece by wide excision. The macroscopic examination showed a tumor of  $4.5 \times 3.2 \times 2.5$  cm. After further studies of the nodule, we observed the presence of heterogeneous grayish lesions measuring  $2 \times 1.5 \times 1$ cm. Microscopically the lesions were made up of dilated endometrial glands lined with cubic cells that were transforming to pseudostratified cells in certain regions. The cells were devoid of cytonuclear atypia, the lumen was filled with hemorrhagic suffusions and the margins were healthy. This was a morphological appearance compatible with parietal endometriosis without histological sign of malignancy. There was no immediate postoperative complication. The patient was able to

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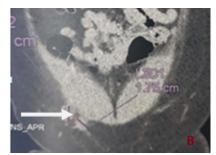
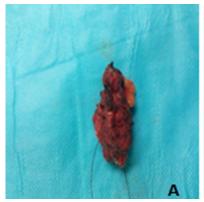


Figure 1: Axial(A) and Coronal(B) abdomino-pelvic CT scan image showing a Right Anterolateral Pelvic Subcutaneous Parietal Nodule.



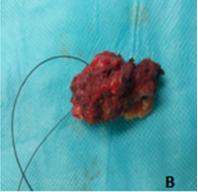


Figure 2(A&B): Surgical specimen image.

resume her normal diet the next day and discharged with analgesic medications. The patient reported that the pain disappeared in the weeks following the surgery. A follow-up of 18 months was uneventful.

#### **Discussion**

Endometriosis is the ectopic implantation of endometrial tissue. Its extra-abdominal location has been identified at various sites including the rectus muscles, the umbilicus and the trocar openings [3]. Cicatricial parietal endometriosis is a fairly rare pathology whose initial diagnosis is not easy taking into account the many differential diagnoses that can be evoked including eventration, hematoma, granuloma, abscess, lymphadenopathy, lipoma, neurofibroma, sarcoma and desmoid tumor, etc. [4]. The most frequent modes of revelation are the discovery of a palpable mass gradually increasing in size. The mass is usually painful which may be associated with skin changes next to the scar. The catamenial character, that is to say the exacerbation of these signs during menstruation is an important element of the diagnosis. Ultrasound confirms the typical intramuscular parietal origin of the mass found clinically. Computer tomography scan and magnetic resonance imaging (MRI) make it possible to orient the diagnosis without giving any certainty because only the anatomo-pathological studies allow the confirmation. Histological examination confirms the diagnosis and excludes malignant neoplasia or other benign lesion [5]. Immunohistochemical techniques for assaying steroid receptors, using specific monoclonal antibodies can detect estradiol and progesterone receptors at both the glandular

and stromal level, but the distribution is very heterogeneous. Malignant degeneration of endometriosis occur mainly in the ovary. The extra pelvic locations of endometriosis that have been studied represent only about 20% of cancers [6]. To confirm the cancerization of an endometriosis, several criteria must be present. They were defined several decades ago by Sampson then Scott [7] namely: the coexistence of benign endometriosis and malignant endometrial tissue in the same organ, the absence of primary or secondary tumor of another origin in the organ, tumor histology compatible with endometriosis, the existence of a transition zone between endometriotic tissue and malignant tissue. The medical treatments of the parietal localizations showed their limit, exposing the patients to frequent recurrences and to the side effects of hormone-suppression or to androgenic effects. The medical treatment can be conceived as induction treatment for bulky masses, aiming at reducing the volume of the endometrioma and the parietal defect resulting from its removal. The sclerotic reaction which delimits the focus of endometriosis, its poor vascularization as well as the importance of the mass compared to the low quantity of hormone receptors explain the lack of beneficial effect of a preoperative treatment [8].

The treatment of these lesions is based on surgical excision, which should be as large as possible in order to remove the entire mass. This surgery can be dilapidating requiring wall reconstruction with parietoplasty. This was not the case in our patient. In addition, the exceptional endometrioid carcinoma reported for extra-genital locations and constitutes an argument in favor of large surgical excision. This large excision involves

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the removal of the entire lesion and extending at least 5 mm in a healthy zone [9]. The prevention of these lesions in the event of laparotomy is based on abundant washing of the abdominal cavity and the incisional site at the end of the operation. Also the change of gloves for the closure of the wall can help in the prevention of endometriosis. In laparoscopy, the extraction of surgical specimen in a protective bag and abundant washing of the pelvic cavity should be systematic. Thus, these measures are good surgical practice although their benefit has never been demonstrated [3].

#### Conclusion

Parietal endometriosis is certainly a rare pathology. The diagnosis must be made in women who have undergone gyneco-obstetrical surgery and who present with pain triggered by menstruation. Treatment is primarily surgical and it is of paramount interest to undertake preventive measures during gyneco-obstetrical surgery.

#### **Declarations**

## **Ethical Approval and Consent to participate**

Our work has been carried out in strict compliance with ethical standards, in particular the informed consent of our patient to participate as a research subject. With respect for the dignity, rights, safety and well-being of our patient. We certify that all possible efforts have been made to protect the identity of the patient mentioned in this Manuscript.

Approval made by the Ethics Committee for Biomedical Research, an independent institution at the Faculty of Medicine, Rabat.

We certify that the study was performed in accordance with the ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

We certify that We have obtained informed written consent from

We certify that We have obtained informed written consent from the concerned patient to participate.

#### Availability of data and materials

All data generated or analysed during this study are included in this published article.

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