

Incisional Endometriosis: A Clinical Case Report

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ABSTRACT

Endometriosis results from the implantation of functional endometrial tissue, involving both glandular and stromal cells, outside the uterine cavity. Only rarely is endometriosis found at the site of an episiotomy, with the incidence rate of this form of the disease ranging from 0.01 to 0.06% of cases. The physiopathology of this form of endometriosis is believed to be related to the implantation of decidual cells secondary to postpartum lochia and is associated with obstetric surgical procedures. This case report provides a brief review of the literature and describes a clinical case involving a patient with a diagnosis of endometriosis in an episiotomy scar. A retrospective, observational study was conducted by analyzing the patient's medical records. The clinical manifestations of a nodule suggestive of endometriosis at the site of her episiotomy scar were confirmed as those typically found in endometriosis, with the best treatment option being resection of the lesion.

Keywords

Endometriosis, Episiotomy, Incisional endometriosis.

Introduction

Endometriosis is a common disease in gynecology, affecting 10-15% of women of reproductive age, around 30% of infertile women and up to 70% of women suffering from chronic pelvic pain. This chronic, multifactorial and recurrent disease involves immunological, genetic and environmental alterations [1].

The prevalence of endometriosis has increased over recent years, and this could be associated with greater exposure to estrogen resulting from the current drop in birthrates and the corresponding increase in the number of lifetime cycles experienced by women. Estimates suggest that seventy million women worldwide have been diagnosed with endometriosis [1,2].

The presence of functioning endometrial tissue, including stromal and glandular tissue, outside the uterine cavity represents the principal physiopathological process. The theory of retrograde menstruation suggests that the endometrial cells present in the peritoneal cavity are not eliminated [1-3]. The most commonly affected sites are the pelvic peritoneum, ovaries and rectovaginal

septum. Symptomatology may vary; however, the most classic symptoms consist of dysmenorrhea, chronic pelvic pain and dyspareunia [2,4,5].

Diagnosis is complex and involves observation of the clinical characteristics of the disease together with additional investigative techniques. Treatment should be individualized, taking clinical manifestations and the impact of the disease on the woman's quality of life into consideration [4,5].

Endometriosis in a surgical scar is rare, with an incidence rate of 0.03 to 3.5%. When the site affected is the episiotomy scar, the incidence is even lower, between 0.01 and 0.06%, and it may be related to the implantation of decidual cells. The most generally accepted theory put forward to explain this pathological process concerns the direct implantation of endometrial tissue during surgery, with the lesion then growing in response to subsequent hormone stimulation [1,2,6].

The most common clinical sign of incisional endometriosis is the presence of painful nodules situated close to the surgical scar, with pain increasing in intensity during menstruation. The treatment of choice is resection of the lesion, since hormone suppression is

only partially effective. The objectives of surgical treatment are to minimize pain, which can be incapacitating, and to prevent the recurrence of lesions, since malignant transformation may occur in 0.3 to 1% of cases, with clear cell carcinoma being the most common histological type encountered in recent years [1-3,6-8].

This work was conducted in accordance with the Declaration of Helsinki (1964). The internal review board of the School of Sciences, Santa Casa de Misericórdia de Vitória (EMESCAM) evaluated and approved the publication of this report on August 29, 2017, under reference number CAAE 72294717.0.0000.5065. The patient gave her written informed consent to publication.

Case Report

The patient, MFFC, a 31-year old woman, reported having experienced menarche at 12 years of age and having regular menstrual periods with dysmenorrhea. She began her sexual life at 15 years of age and reported no dyspareunia. She had three pregnancies and three natural deliveries.

She presented at the vulvar outpatient clinic of the Santa Casa de Misericórdia Hospital on November 30, 2015 complaining of lumps in the vulvar region, on the episiotomy scar, that became extremely painful just prior to and during menstruation. She was currently in use of a monthly injectable contraceptive. The condition evolved over a 5-year period. Following physical examination, the diagnostic hypothesis was of incisional endometriosis, with fibrosis as the differential diagnosis (Figure 1).



Figure 1: Nodular lesion at the site of an episiotomy scar.

The proposed approach was to completely resect the lesion, leaving a wide margin (Figures 2 and 3).

After the procedure, the patient returned to the general gynecology outpatient department for a follow-up visit and reported complete resolution of all the symptoms, adding that she had opted to stop using contraception (Figure 4).

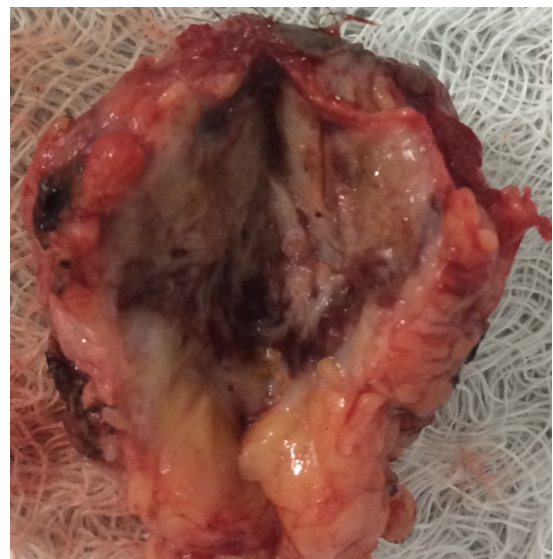


Figure 2: Macroscopic appearance of the lesion, measuring 3x3 x 2.2 cm.

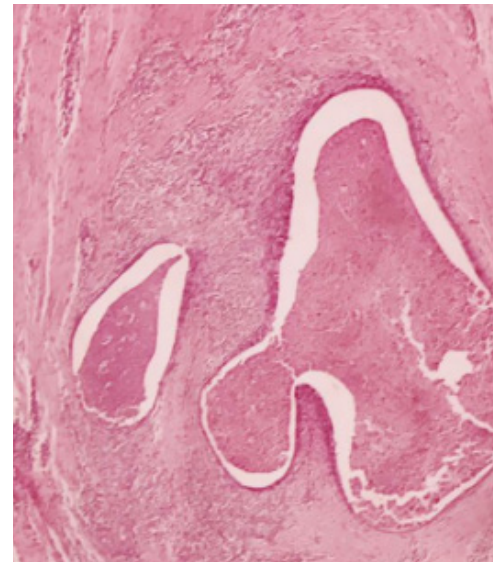


Figure 3: Hematoxylin-eosin staining; magnification 100x; endometrial glands with connective and adipose tissue.



Figure 4: Appearance following surgical procedure.

Discussion

Endometriosis is a disease that occurs as a result of implantation of endometrial tissue outside the uterine cavity. The underlying physiopathological mechanism has yet to be defined. The principal mechanism behind incisional endometriosis at the site of an episiotomy scar is believed to be through the direct implantation of placental cells during childbirth, followed by estrogen stimulation that permits the disease to develop (cellular transport theory) [4,9].

Extrapelvic implants are uncommon, with most cases being associated with cutaneous implantation following gynecological and obstetric surgical procedures. According to the literature, the presence of nodules at the site of an episiotomy scar occurs in 0.01 to 0.06% of cases [4].

Nodulation that becomes painful during menstruation is the principal characteristic of endometriosis in an episiotomy scar. Diagnosis is based on anamnesis and physical examination; however, ultrasonography and magnetic resonance imaging can provide further information. The usefulness of molecular markers such as CA-125, C-reactive protein, anti-Müllerian hormone and follistatin has yet to be established and they cannot yet be taken into consideration when screening for diagnosis. The principal differential diagnoses include granuloma, abscess, sarcoma, desmoid tumors and lipoma. Diagnosis can only be confirmed by anatomopathology [4,9-11].

The interval between the obstetric procedure (in this case, normal childbirth) and the onset of the clinical manifestations varies; however, the majority of retrospective studies reported in the literature refer to an interval of less than four years [9,12].

The treatment of choice is complete surgical resection of the nodulation, including the removal of adjacent tissue. The typical macroscopic appearance is described as a whitish lump containing thick, chocolate-colored fluid. The mean diameter of nodules situated in an episiotomy scar or in a Cesarean section scar is 3.1 cm (range 1.5 to 4.8 cm) [8,9,11,13].

Recurrence is possible, albeit uncommon, and occurs when resection of the tumor is incomplete. Pharmacological treatment with non-steroidal anti-inflammatory drugs (NSAIDs), combined oral contraceptives, progesterone and GnRH analogs can partially improve symptoms; however, they cannot be considered a

definitive treatment [12,14].

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