CASE REPORT

Asymptomatic abdominal wall endometrioma 15 years after cesarean section

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Abstract

Abdominal wall endometriosis is rare and its diagnosis is difficult. However, the consequences may be serious, like recurrences or even malignant transformation. We report a rarer case of asymptomatic abdominal wall endometrioma, accidentally found during a surgical procedure for a second cesarean section, in a 39-years old patient, without any relevant history of endometriosis. The tumor was subcutaneous, 3/3 cm in size, located in the left angle of the incision from the 15 years previously performed cesarean section and freely mobile in relation with the skin and the fascia. It was excised, with clear margins (to prevent recurrences), during the procedure. The patient was discharged after five days. The postoperative period and the follow-up at one and three months were uneventful. The pathological examination clarified the diagnosis by revealing an endometrioma with decidual reaction. Such a condition may be, therefore, evoked before an abdominal wall tumor, even without specific symptoms, even in a 39-years old woman and longtime after the possible causal surgery. Pathological examination remains the ultimate diagnostic tool. Relevant prophylactic attitude at the end of the cesarean section may be considered.

***Keywords*:** abdominal wall, endometriosis, endometrioma, asymptomatic, pathology.

Introduction

Endometriosis is a condition involving up to 15% of menstruating women [1]. However, the localization within the abdominal wall, although described [2, 3] is infrequent, only a few cases being reported in the literature [1]. The series, retrospectives, vary from one (the great majority) to 12 [4, 5] – 15 [6] cases, and very rarely more [7]. It is found mostly in scared abdomen [8, 9], in women with different previous procedures [10], but mostly after cesarean section [1, 4, 5, 11–13]. It can also be diagnosed in patients without any history of surgery [14, 15]. Only exceptionally the condition is accidentally diagnosed during other procedures [16]. The incidence is, even in those circumstances, low, any how reported: 4% of all cases of endometriosis [17], 0.044% of cases undergoing cesarean section [7] or 0.2–0.8% of patients with previous cesarean section [4, 6, 18].

The diagnosis is difficult [8], as the symptoms are frequently nonspecific [4, 8] and as the contribution of the imaging diagnosis is generally weak [6, 8]. However, the consequences may be serious, like recurrences [7] or even malignant transformation [7, 19]. Pathological examination remains the ultimate diagnostic tool [4–7].

We report, below, a rarer case of abdominal wall endometrioma accidentally found during a surgical procedure for a second cesarean section and having several infrequent particularities.

Patient and methods

Miss M. M. I., 39 years old, was hospitalized and delivered in our department, by cesarean section, at term.

She had had a previous cesarean section in 1991 for a bilateral myopia (3.5) and labor progression arrest. The size of the fetus, 3 700 g, probably played an important part in the mechanism of the described dystocia.

From her history, we noted a termination of pregnancy, gastric ulcer – treated medically, a car accident with cerebral trauma, alimentary allergy and an appendectomy in her childhood.

She had no other significant history for parietal endometrioma. No other diagnosis of pelvic, abdominal or extra-abdominal endometriosis was available. No endometriosis-related symptoms or abdominal wall tumor were reported.

Her last menstrual period was concordant with the first detected fetal movements, with the ultrasonographic age and, hence with the probable date of confinement.

Blood group testing returned an AII, Rh+ result. During the pregnancy, she had had normal basic laboratory values: hemoglobin 14.1 g/dl, hematocrit 41.2%, white blood cells 7400/mm^3 (repeated four months later: 9700/mm^3), platelets 299 000/ml (repeated after four months: 354 000/ml), serum glucose 90 mg/dl (repeated four months later: 101.7 mg/dl), iron

86 mg/dl, creatinine 0.7 mg/100ml, blood calcium 8.25 mg/dl, and ionic calcium 4.81 mg/dl. Her HIV and syphilis blood test were negative.

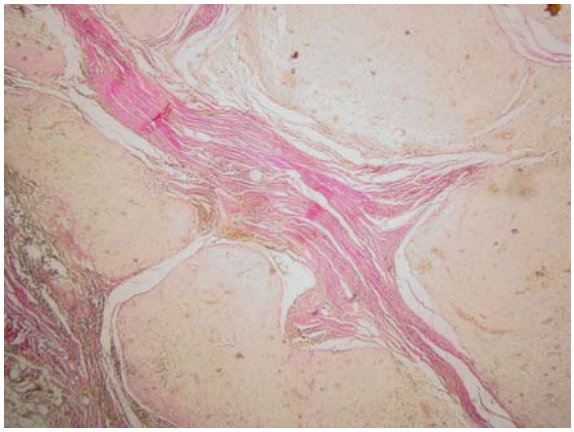
Due to her age, she was proposed a triple test, even if she did not report any genetic disturbance, nor personal or in her family, and even if there was no information concerning malformed fetuses of children in her case or within the family. The result returned normal values: alpha fetoprotein 40.41 mU/ml, estriol 4 220 mU/ml, bhCG 42 123.71 mU/ml. The integrated result corresponded with a probability of trisomy inferior to that corresponding to her age. The urine examination observed no abnormality.

The blood test performed in the third trimester revealed a slight anemia, with hemoglobin values of 10.8 g/dl, hematocrit 31.2% and serum iron 52 mg/dl. The rest of the prenatal monitoring was uneventful. We decided, at 39 gestational weeks, to deliver the patient's second child through cesarean section, because of her age, the previous cesarean section and her very strongly expressed will.

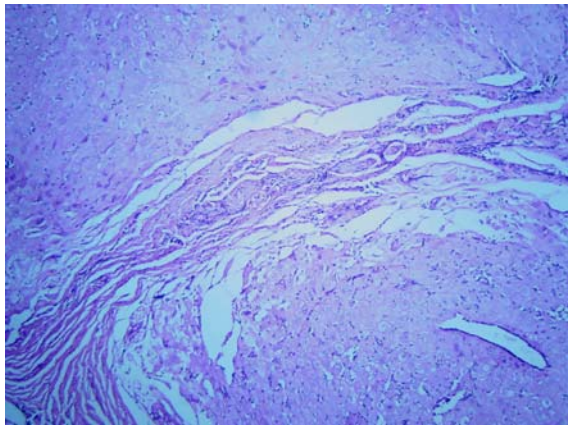
During the surgical procedure, a 3/3 cm subcutaneous lump was found, within the area of the incision from the previous cesarean section – in the left angle. The tumor was freely mobile in relation with the skin and the fascia. The tumor was excised during the same procedure. The rest of the cesarean procedure was without any particularities.

The postoperative period was uneventful and the patient was discharged after five days. The follow-up at one and three months did not notice any unwanted event. The pathological examination analyzed, macroscopically, three fragments of adipose tissue, of 1–2.5 cm in diameter, yellow in color. There were, on the section surface of the fragments, several nodular, grey zones, with increased consistency.

The microscopical examination was performed after inclusion in paraffin and coloration with Hematoxylin–Eosin or van Gieson. The sections revealed conjunctive-striate insular fragments with the presence of several islands of decidua separated by septa associated with deposits of hemosiderin and with chronic granulomatous inflammation. The final diagnosis was endometriosis of the abdominal wall (endometrioma) with decidual transformation of the chorion (Figure 1, *a* and *b*).



(a)



(b)

Figure 1 – ***Decidual reaction in a focus of parietal endometriosis: (a) van Gieson, ×5; (b) HE, ×10***

Discussion

We will not reiterate the discussion concerning the rarity of the abdominal wall endometriosis. The relevant low incidence is even more stressed because of the lack of any symptom – the lump being discovered during the cesarean section.

Different papers mention, in favor of such a situation, that, if some patients have cyclic, suggestive symptoms [4, 7], others have not [4, 8].

Patient's age was not within the average figures described by other authors: 20–34 years [13].

On the other hand, the previous cesarean section was found in her history, as in the majority of other reports [1, 4, 5, 11–13].

Local endometrial cell transplant seems to be the most probable physiopathologic mechanism [6]. Some authors express concern related to this issue, in the light of the rising caesarean section rate [20]. Others recommend that, at the end of the cesarean section and before closure, the abdominal wall incision should be thoroughly cleaned and generously irrigated with high-jet saline solution [13].

The time interval from the previous surgery (15 years) is longer in our case, compared with the figures we have found in the literature: 1.9–7 years [6, 13, 17].

The size of the endometrioma reported here (30/30 mm) is somehow bigger than generally reported: around 25 mm [4, 6].

We found a single lump, even if in the literature there are some reports of two endometriomas [11, 14]. Cutaneous localization has been evoked [21], as well as within the rectus abdominis muscle [1, 6, 14]. Subcutaneous parietal endometriomas, as in our case, have also been described [1, 22–24].

Diagnosis is always difficult. Imaging diagnosis power is weak [1, 8], in different studies and with various tools: sonography [25], CT, Doppler [5]. Only MRI seems to offer some useful information [1, 8, 26].

Some authors advocate the necessity of a routine MRI examination after uterine endometriosis (adenomyosis) because of a probable coexistent pelvic disease [26]. Others, either did not find any evidence of pelvic disease [18] or, even if considering this association in 26.6% of cases, did not indicate a

laparoscopic exploration, as the condition was often asymptomatic [6].

Differential diagnosis may include desmoid tumors, sarcoma, and tumors of ovarian origin, melanoma, lymphoma, hematoma, abscess [1] or even hernia [27]. Cytology, obtained by fine-needle aspiration [28–30], sometimes sonographically guided [4], may be of limited interest.

The final diagnosis comes, no surprise, from pathology [8]. As in whatever site, the histology of endometriotic tissue tends to be similar to that of the endometrium in its proliferative stage, implying the presence of at least two of these three entities: endometrial glands, stroma and hemosiderin pigment [31]. During pregnancy however, the aspect may change [32–34]. It may turn into a secretory endometrium with decidualized stroma. The glands are small, delineated by typical epithelial cells. Occasionally, focal hemorrhage occurs. In longstanding cases, in which the repeated cyclic function takes place in an incomplete differentiated endometrial tissue, the histological diagnostic is obscured by the fibro-obliterative response. The epithelial structures disappear and stripes of chorion are included in scarring tissue with the preservation of the copious capillary vasculature. Sometimes inclusion cysts may occur if the epithelium is not eradicated. During decidualization, also, cell death induces focal muscle metaplasia resulting in some confusing histological aspects.

The only effective treatment is the one we choose: surgical excision with clear margins in order to prevent recurrences [6, 7]. No complications were noted, as in other studies [6] and the absence of any recurrence, described also by others [6, 17, 18], is in favor of a good prognosis.

Conclusion

We present in this paper a rare case of abdominal wall endometrioma, accidentally found during an iterative cesarean section, 15 years after the previous procedure. Pathologic examination clarified the diagnosis. Such a condition may be, therefore, evoked before an abdominal wall tumor, even without specific symptoms and longtime after the possible causal surgery. Relevant prophylactic attitude at the end of the cesarean section may be considered.

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