

Rectus abdominal muscle endometriosis in a patient with cesarian scar: case report

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Summary

Endometriosis is the existence of endometrial tissue out of the intrauterine cavity. Abdominal wall endometrioma is a well-defined mass composed of endometrial glands and stroma that may develop after gynecologic and obstetrical surgeries. A cyclic painful mass at the site of a cesarean section scar is most likely due to an endometrioma, and wide local excision is the advisable treatment. The authors present a case of endometrioma in the abdominal wall, which was treated with local excision.

Key words: Endometriosis; Scar; Cesarean section.

Introduction

Endometriosis is the existence of endometrial glands and stroma outside the uterine cavity. Ectopic endometrial tissue is commonly found at pelvic region, but it can be found anywhere in the body [1]. It can be found in the extrapelvic areas such as the eyes, kidneys, adrenal glands, lungs, intestines, umbilicus, diaphragm, gall bladder, heart, liver, bones, and central and peripheral nervous systems [2]. There are several theories about the etiology of endometrial tissue outside the uterine cavity. These include metaplasia, retrograde menstruation, venous and lymphatic metastases, and mechanical implantation. Endometrioma is a well-defined form of endometriosis. Incisional endometriosis (IE) generally occurs after hysterectomy, cesarean section, episiotomy, tubal ligation, and trocar entry during laparoscopy and amniocentesis [3].

The authors present a case of endometrioma in the abdominal wall, which was treated with local excision.

Case Report

A 33-year-old woman had a cesarean section five years ago. She was admitted to this clinic complaining of left lower quadrant abdominal pain and swelling which was more severe during menstruation. A painful firm mass was palpated at the middle of the cesarean incision scar during a physical exam. Ultrasonographic examination showed a 23 x 20 mm hypoechoic solid lesion with irregular contours. Magnetic resonance imaging (MRI) was performed to delineate the relationship between the mass and other intra-abdominal organs. MRI showed a fibrous soft tissue component in the rectus abdominal muscle which was not related to the intra-abdominal organs and indistinguishable from muscle contours (Figure 1). Subsequently, surgical excision was performed and the mass was widely excised, forming a three-cm defect in the abdominal wall (Figure 2).

Microscopic examination revealed endometrial gland structures with endometrial stroma in adipose tissue in sections of specimens, indicative of endometriosis. During the pathological examination,

the fibroadipose tissue was found with the neighboring hemorrhagic areas. The lumen of histiocytes and neutrophils in a single-row that contained the structure of the endometrial glands were lined by endometrial epithelium. Around the areas of hemorrhage showing an endometrial stromal structure in a single-row columnar epithelium lined by endometrial gland structures was observed (Figure 3). The patient recovered uneventfully and did not report any symptoms of recurrence without any medical treatment four months after surgery.

Discussion

Abdominal wall endometriosis is the most common form of extrapelvic endometriosis. It is seen most frequently in women 20-40 years of age, and generally detected two to five years after cesarean section [1]. In the present case, the patient was 33-years-old, and became symptomatic five years after the cesarean section. In a study of post-cesarean cases, 0.2% of the cases developed incisional endometrioma after two years or more [4]. Pathogenesis is thought to be due to implantation, direct invasion, and vascular/lymphatic invasion. The diagnosis of scar endometriosis can be difficult despite specific symptoms, such as pain and swelling during menstruation. Less frequently, it can be seen as a mass unrelated to menstrual cycles [5]. The differential diagnosis of IE includes hernia, hematoma, lymphadenopathy, lymphoma, lipoma, abscess, subcutaneous cyst, suture granuloma, neuroma, soft tissue sarcoma, and metastatic cancer [5]. Fine-needle aspiration biopsy, ultrasound, computed tomography (CT), and MRI are valuable for the pre-operative diagnosis [6, 7]. In this case, the patient had pain and swelling during menstruation. Her work-up included imaging by ultrasound and MRI, and she underwent surgery after the determination of the differential diagnosis.

During the surgical excision for the treatment of IE, the mass must be removed with a ten-mm margin of healthy tissue, and without rupturing and leaving behind endometrioma tissue. Recurrence after resection is seen in 4.3% of cases and the possibility of malignancy should be considered if the mass grows rapidly or recurs [5]. Mesh or tissue graft

Fig. 1

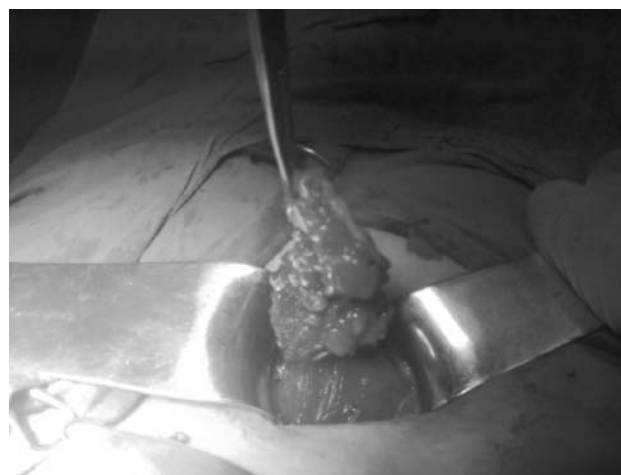
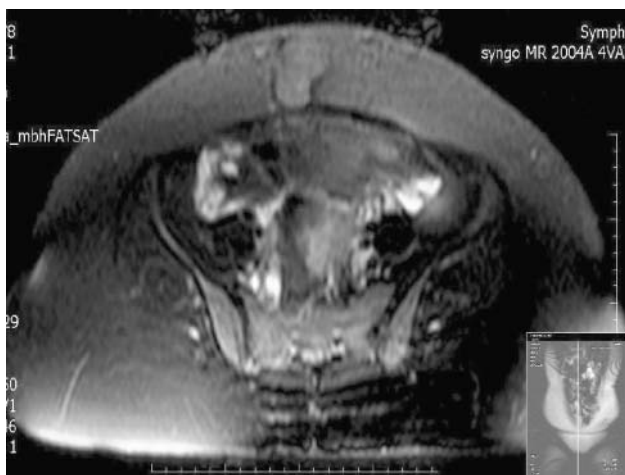


Fig. 2

Fig. 3

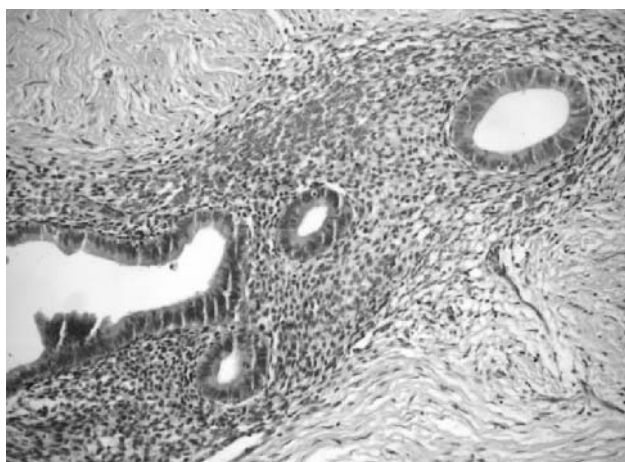


Figure 1. — MRI scan of the mass at the level of the rectus abdominal muscle.

Figure 2. — Extensive excision of the mass.

Figure 3. — Areas of hemorrhage showing endometrial stromal structure in a single-row columnar epithelium lined by endometrial gland structures (H&E stain, X200).

may be utilized in order to repair the defect that may occur after the excision of IE [8]. In this case, the mass was excised with one-cm margins of healthy tissue. As the fascial defect was small and tension free, it was primarily repaired. Rarely, IE can be multifocal. Since the most common site of an incision lesion is at an end, to prevent direct inoculation, Evsen *et al.* suggested that while suturing the fascia at the end of the incision, the surgeon or assistant must use clean surgical equipment instead of their fingers to retract the subcutaneous tissue in the incision [9].

Conclusions

In order to make the preoperative diagnosis of incisional endometrioma, a detailed history should be taken, and a physical examination should be performed. Additionally, radiological investigation and fine-needle aspiration biopsy should also be performed. Endometrioma should be the top differential diagnosis in patients who have pain and swelling occurring every menstrual cycle on the scar following gynaecological surgeries.

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