

## Case Report

# Giant incisional endometrioma penetrating the abdominal fascia

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### Abstract

In differential diagnosis of mass near by a scar in patients with surgical history, incisional endometriosis should be considered. This report focuses on a patient with a cesarean history describing pain and bleeding from the incision during menses. The patient underwent an exploratory laparotomy. The mass was totally excised and fascial defect was repaired with a tension-free mesh.

### Key words:

Incisional endometrioma, fascial defect, tension-free mass, abdominal fascia

## Introduction

Abdominal wall endometriosis is rare, with an incidence of 0.03-0.47% following cesarean delivery. An iatrogenic origin has been proposed in the case of endometriotic implants occurring after hysterectomy, appendectomy, laparoscopic operation, needle tract amniocentesis and perineal episiotomy incision [1]. In patients with a palpable subcutaneous mass near surgical scars associated with cyclic or constant pain, a thorough history and physical examination are sufficient to establish the presence of endometriomas. A surgical-wide excision with clear margins is the single treatment of choice [2].

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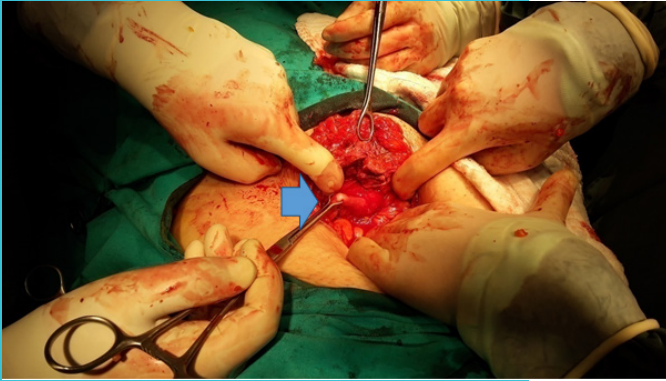
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## Case presentation

A 35-year-old woman was referred to our clinic for atypical cyclic pain and hemorrhage from phannenstiel incision scar at menses. Her medical history was not significant. She had undergone cesarean section three years ago and her complaints began one month ago. She did not have a history of endometriosis. On physical examination, she had a firm mass and restricted mobility along the midline of the cesarean section scar. Other findings from physical examination were normal. Ultrasound of the anterior abdominal wall showed a 2 cm fistula tract and a hypoechoic heterogenous lesion about 6 cm on the midline of the scar. She underwent surgical excision. At intraoperative evaluation, the mass was seen along the fascia as an heterogenous mass (Figure 1). There was a doubt about whether the mass laid through the fascia so we got close to mass by intraperitoneal approach. Mass destructed the fascia and beneath the lining destructed fascia salpinx, bowel and omentum made a conglomerate and were attached (Figure 1). Mass was excised by adhesiolysis.

Mass was about 8 cm (Figure 2). Fascia defect was repaired with a tension-free mesh. Patient recovered uneventfully.

**Figure 1.**

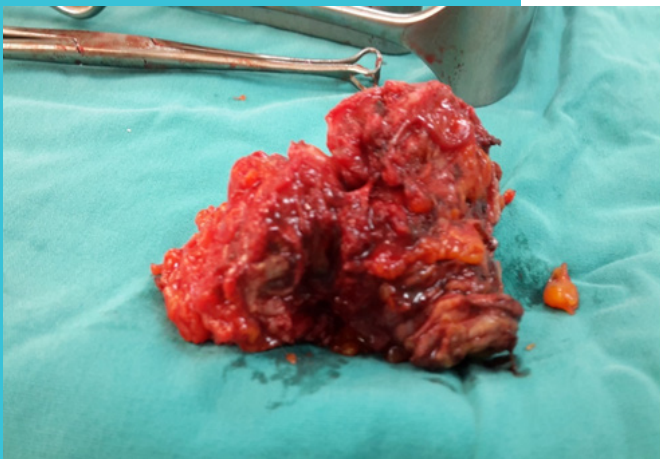


*Beneath the destructed fascia; salpinx (blue arrow), omentum and bowel were attached densely.*

## Discussion

The abdominal wall is an uncommon site of extrapelvic endometriosis. It usually develops in a previous surgical scar and should be considered in the differential diagnosis of any abdominal swelling.

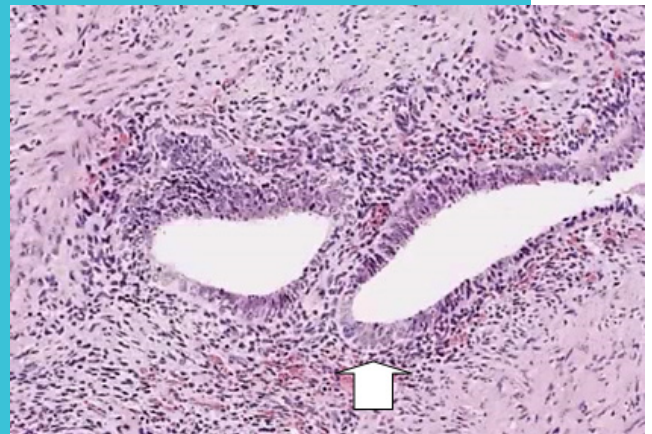
**Figure 2.**



*Endometrioma 8 cm.*

Classical symptoms of endometriosis may resemble abdominal wall lesions such as an incisional hernia, hematoma, granuloma, abscess or various soft tissue tumors; therefore, a definitive preoperative diagnosis is not always easy to determine in every case [3]. Imaging methods like doppler ultrasound (USG), computed tomography (CT) and magnetic resonance imaging [MRI] should absolutely be benefited for differential diagnosis of suspected masses.

**Figure 3.**



*Characteristic features of endometriosis, with endometrioid glands surrounded by stroma (hematoxylin and eosin stain) (white arrow)*

Definitive diagnosis can only be made histopathologically. The development of a fistulous tract may be regarded as a consequence of the infiltrative course of this chronic inflammatory process, a feature that further contributes to the irregular shape of endometriomas [1]. It is recommended to keep in mind that these tumors may be a metastatic lesion arising from a malignant focus and to make diagnosis of endometrioma definite through USG -guided fine needle aspiration cytology in patients who do not accept surgical treatment [4]. Two different theories are available to explain endometrioma development in cesarean sectio (C/S). According to the first hypothesis, multipotent mesenchymal cells differentiate to endometrial tissues in their site after puberty and show physiopathological changes, like proliferation, hemorrhage as response to hormonal functions. Second hypothesis; endometrial cells are transported to extrauterine areas in some instances and similarly endometrioma develops by

being affected from hormonal changes. Endometrioma development in cesarean section (C/S) scar tissue on abdominal wall seems more consistent with the second hypothesis. An increase has been reported in endometrioma frequency in parallel with the increase in number of C/S in recent years [5]. Procedure responsible for endometrioma development on incision site is iatrogenic inoculation of endometrial tissue into incision site [6]. Endometrioma usually emerges during a ten year period following C/S [7]. Alternatively, endometrial cells may reach a C/S scar via lymphatic or hematogenous routes and subsequently grow into an endometrioma by the mechanism described above [8]. A retrospective analysis of five years of 9 surgically proven cases of abdominal wall endometriosis showed that all patients had at least one cesarean section and none had endometriosis history. Sonographic mean diameter of mass was 30 mm [9]. It is believed that during the surgical procedure, when the uterine cavity is opened, there is some risk of decidualized endometrium implantation. However, only infrequent case reports of abdominal wall endometriosis following obstetric or gynecologic procedures have appeared in the literature. The antiapoptotic function of the survivin gene may play an important role in endometriotic implant survival and invasion [10]. There also has been a report of endometrioid carcinoma developing in abdominal wall endometriosis 17 years after previous hysterotomy. Case reports of malignant transformation of scar endometriosis have been sporadically reported worldwide. Many obstetricians are trained to clean the endometrial cavity with a moist or dry sponge after placental removal just before uterine closure during a C/S. This procedure

may deliver an increased inoculum of endometrial tissue to the abdominal wound if the used sponge is not discarded immediately after cleaning the uterine cavity [11]. The suture material used for suturing the uterus should not be reused during the closure of the abdominal wound. The abdominal wall wound should be cleaned thoroughly and irrigated vigorously with saline solution before closure [12]. A palpable mass on abdominal scar tissue could be soft tissue tumors and endometrioma besides incisional hernia in patients following some obstetric and gynecologic interventions. A detailed medical history, physical examination findings and imaging methods in suspected cases are significant diagnostic tools to investigate the features of the pain and relationship with menstrual cycle. Radical treatment should be complete surgical excision for patients who receive prediagnosis of endometrioma and one should take care against intraoperative auto-inoculation of endometrial tissue in order to prevent recurrences. Wide excision with at least a 1 cm margin and/or patch grafting for fascia defect have been emphasized [13]. Combined oral contraceptives, progestagens and hormone suppression therapy with gonadotropin releasing hormone analogues should be used for medical treatment of patients who don't want surgery and whose diagnosis of endometrioma was verified through fine needle aspiration cytology [13,14].

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#### Conflict of Interest

Authors have no relationships with companies that may have a financial interest related to the information contained in the manuscript.

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