

# CASE REPORT:SCAR ENDOMETRIOSIS FORMATION AFTER INCISIONAL HERNIA REPAIR

## VAKA TAKDIMI: İnsizyonel Herni Onarımı Sonrası Gelişen Skar Endometriozisi

HALİS ÖZDEMİR<sup>1</sup>, DİLEK KALKAN<sup>1</sup>, FUNDA ARPACI ERTUĞRUL<sup>1</sup>, AYSEL ÇOLAK<sup>2</sup>, ÇEMAL REŞAT ATALAY<sup>1</sup>, SEZER KULAÇOĞLU<sup>2</sup>, ÖMER FERİT SARAÇOĞLU<sup>1</sup>

<sup>1</sup>Department Of Gyn&obs, Ankara Numune Education And Resarch Hospital, Ankara

<sup>2</sup>Department Of Pathology,ankara Numune Education And Resarch Hospital, Ankara

### ÖZET

Endometriosis fonksiyonel endometrial dokunun uterus dışında da bulunması olarak tanımlanmaktadır. İnsizyonel endometriosis, çoğunlukla obstetrik veya jinekolojik cerrahi sonrası insizyon hattında endometrial dokunun bulunmasıdır. Sezaryen ameliyatlarından sonra skar endometriozisi gelişmesi oranı % 0,003-0,4 arasında değişmektedir. Bu makalede sezaryen sonrası insizyonda gelişen kitle ve döngüsel ağrı oluşturan, 41 yaşındaki kadın hastada insizyonel herninin onarımı sunulmaktadır. Kitlenin ultrasonografik (usg) ve magnetik rezonans görüntülemesi (MRG) endometriozisi düşündürmekte, kitlenin patolojik incelemesi tanıyı teyid etmektedir.

**Anahtar Kelimeler:** Endometriosis, incisional hernia, scar

### ABSTRACT

Endometriosis is defined as the presence of functional endometrial tissue outside the uterine cavity. Incisional endometriosis is the settling of endometrial tissue on incision lines mostly after gynecological or obstetrics operations. The frequency of scar endometriosis development after cesarean section is between %0,003-0,4. A 41 years-old woman that has cyclic pain and palpable mass after a cesarean section site incisional hernia repair is hereby presented. The ultrasonographical (USG) and magnetic resonance imaging (MRG) findings supported the diagnosis of endometriosis and the pathological assessment after total excision verified the diagnosis.

**Key words:** Endometriosis, incisional hernia, scar

### INTRODUCTION:

Endometriosis is one of the benign gynecological diseases of reproductive age women that has a frequency of 10-20% with the symptoms of dyspareunia, dysmenorrhea, infertility and pelvic pain (1, 2). Endometriosis is the presence of functional endometrial tissue outside of uterus and known since the beginning of 1900s. However the etiology is not exactly known (3). Several theories regarding the etiology were put forward. Retrograde menstruation is the most widely accepted theory among them, but not all cases can be explained with it. The other theories described were metaplastic changes of the coelomic epithelium, lymphovascular dissemination of endometriotic cells and

mechanical transfer. Lymphovascular dissemination is especially considered in distant spread (4). However, cases arising on the scars after cesarean section, hysterectomy, laparoscopy, appendectomy, amniocentesis and episiotomy support the mechanical transfer theory (5).

### CASE:

41 years-old woman applied to our clinic with the complaint of cyclic pain between the left lower quadrant and umbilicus for the last 6 months. The patient had a history of gravide 3, para 3, all the deliveries were done with cesarean sections and the last cesarean section was done 12 years ago. Physical examination revealed a 5-6 cm cm sized fixated mass on the left lateral

side of the phannenstiell incision site. No rebound or defense was present, but there was marked painful on the lower left quadrant. On the superficial USG, a subcutaneous 44x24x62 cm sized heterogenous mass with irregular contours was detected beneath the incision site. The coloured Doppler USG detected vascular sructures around the lesion. The transvaginal USG revealed no abnormalities regarding the uterus, the ovaries any other the pelvic pathology. Serum CA 125 was found high; 131 IU/ml (0-35 IU/ml). The patient was operated 6 months ago in our general surgery clinic because of umbilical hernia and hernia arising on the pfannenstiell incision. In this operation, with paraumbilical and pfannenstiell incisions the hernia sacs were primarily repaired with no 1 non-absorbable sutures. In the MRG; in the anterior abdominal wall, with lesser pelvic fat infiltration seen through the rectus abdominis muscle mid-inferiorly and left, a mass with irregular lobular contours was detected. The mass had heterogenous intermediate signals with millimetric hyperintense hemorrhagic components in T1A and T2A. Intravenous contrast injection revealed heterogenous intense contrast enhancement. The mass had a size of 6.5x4x7 cm (cc-ap-tr) (figure 1 and 2).

Figure 1.

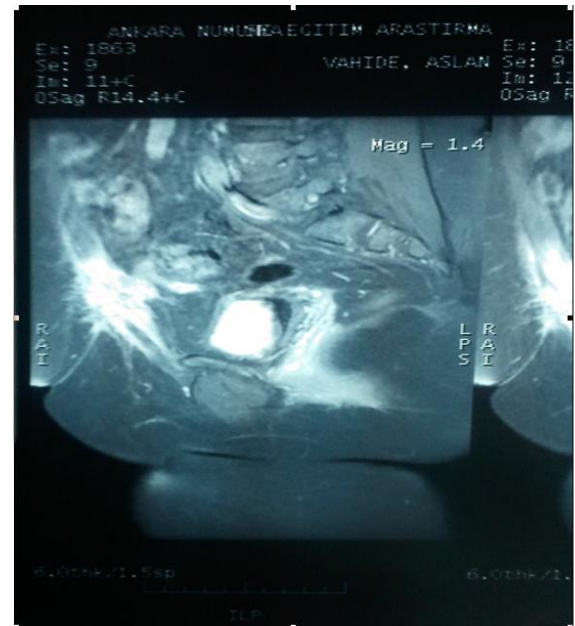


Figure 2: Focus of endometriosis (post-contrast T1 weighted fat-suppressed axial view)

It was found to be significant on the point of endometriosis because of millimetrical hyperintense hemorrhagic components. Following the preoperative preparations, the mass in the incisional hernia repair site was excised with a pfannenstiell incision. There was no post-operative complication. The pathological assessment revealed the diagnosis of endometriosis. No pathological signs were apparent when the patient was seen again a month post-operatively.

#### DISCUSSION:

Endometriosis is significant disease that can cause symptoms like dysmenorrhea, dyspareunia and pelvic pain; can have unwanted consequences in social, sexual and even fertility issues. It is most frequently seen in the pelvis (ovaries, peritoneum, uterosacral ligaments, douglas and rectovaginal septum). Extra-pelvic endometriosis is rare but can be found in almost all organs, in many tissues. It can appear in the vulva, vagina, cervix, urinary system, thorax and scar tissues. Extra-pelvic endometriosis is 8.9% of all cases of endometriosis and is more readily diagnosed than cases of pelvic endometriosis (6). A subset of extra-pelvic endometriosis, abdominal-wall endometriosis, comprises about 4% of all extrapelvic endometriosis cases. Abdominal-wall endometriosis mainly develops in incision scars and umbilicus, and rarely in the inguinal canal and rectus abdominis (7). Endometriosis in the incision site is found along surgical scar lines, and appears as a hard palpable mass accompanied by menstrual pain and swelling. Abdominal-wall endometriosis is seen in about 0.1% of operations such as cesarean section (8). The frequency of post-cesarean section endometriosis is about 0.03-0.4% while this ratio reaches 5.08% in hysterotomies for second-trimester abortions (9). Our case was considered in this risk group because of her history of cesarean sections. However, the history of incisional hernia and the usage of non-absorbable material in its treatment arises the thought of the effect of a foreign-body reaction in the development of endometriosis. Indeed, the development of endometriosis on mesh is shown in literature (10). The clinical diagnosis of scar endometriosis can be made with careful anamnesis and physical examination. In a woman of reproductive age, the presence of a cyclic pain, increasing with menstrual periods, together with the increase in the size of the lesion support the diagnosis of scar site endometriosis. Computerized tomography

(CT), magnetic resonance imaging (MRG), ultrasonography (USG) and fine-needle aspiration biopsy can be used to verify the diagnosis (10). Our patient also had complaints of cyclic pain and palpable mass. Preliminary diagnoses of incisional hernia, keloid, neoplasia; together with the presence of cyclic pain; endometriosis were made. Because the USG and MRG findings supported the diagnosis of endometriosis, fine-needle aspiration biopsy was not necessary in our case. In the literature medical and surgical treatment modalities are defined for scar site endometriosis, but medical treatment is not recommended due to the high recurrence rates (11, 12, 13, 14). Surgical resection is the recommended option of treatment (8). Therefore the lesion was completely excised with clean margins. The development of cyclic pain in scar sites after gynecological operations must be considered pathognomic of endometriosis. Wide surgical excision, having the lowest risk of recurrence, must be the treatment of choice in these patients.



Figure 3: The excision of the endometriotic lesion

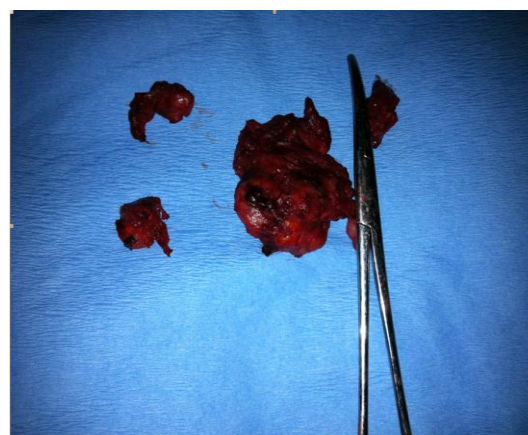


Figure4

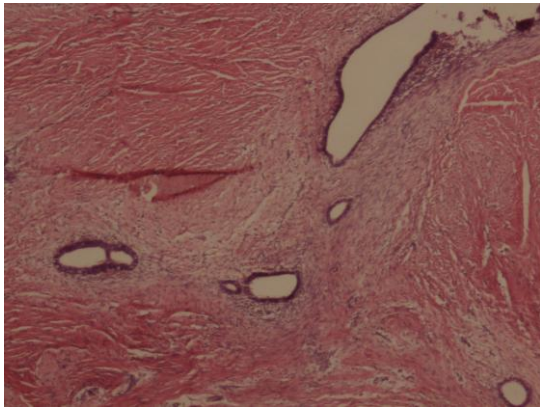


Figure 5: Endometrial glands of variable shapes and sizes, surrounded by endometrial stromal elements, in fibrotic background

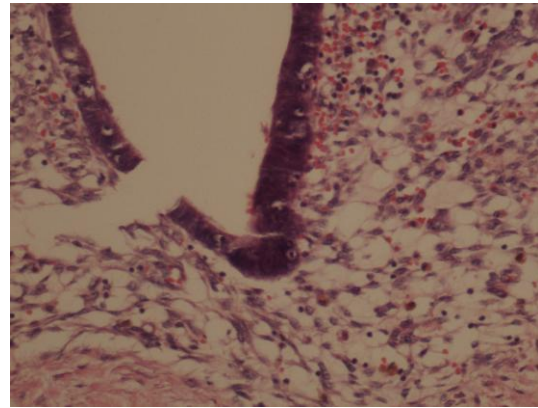


Figure 6: Old and new areas of hemorrhage in the endometriosis stroma (white arrow: hemosiderin-laden macrophages)

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