ENDOMETRIOSIS IN OBLIQUUS EXTERNUS ABDOMINIS MUSCLE: A case report and review of the literature
Musculus oblikus eksternus abdominis kasında görülen bir endometriosis olgusu

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Abstract: *Endometriosis is a common clinical entity, and is found in approximately 15% of menstruating females. Endometriosis of the abdominal wall is rare and usually arises from a surgical incision. We describe a 25-year-old woman with a large suprapubic mass as a definite case of a scar endometriosis, in the abdominal wall following cesarean section.*

Key Words: *Abdominal muscles, Endometriosis*

Özet: *Endometriosis, sık görülen bir klinik antitedir. Menstruasyon gören kadınların yaklaşık %15'inde bulunur. Abdominal duvarın endometriosisi nadirdir ve genellikle cerrahi izsizyonlardan köken alır. Biz 25 yaşındaki kadın hastada, sezaryandan sonra abdominal duvarda, büyük bir suprapubik kitle olarak saptadığımız skar endometriosisli olguyu sunduk.*

Anahtar Kelimeler: *Abdominal duvar, Endometriozis*

Endometriosis is ectopic endometrial tissue that responds to hormonal stimulation. Endometriosis in or close to a surgical scar is rare and occurs mainly in cesarean scars (1-6). Clinical symptoms are not specific and may lead to erroneous diagnosis. Endometriosis in and around cesarean section scars has been clearly established in obstetrics and gynecology literature. The presence of few reports in general surgery literature indicate that endometriosis of the abdominal wall may not commonly be considered in the differential diagnosis of masses detected in cesarean scar (7,8). Although many diagnostic methods are suggested, diagnosis is usually made on histopathological examination of the resected lesion (1, 9-11). Herein, we present a case of endometriosis in the musculus obliquus externus abdominis in a 25-year-old women after cesarean section, and the literature is also reviewed.

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Case Report

A 25-year- old woman, gravida:2, parity:2, presented to Osmangazi University Medical Faculty , Department of Surgery with a complaint of painful swelling in the second cesarean section scar of 1 year duration. She had a history of two previous cesareans five and three years before. She stated that the symptoms worsened while exercising and during the phases of menstruation. She had no previous history of endometriosis. Physical examination disclosed a 5x3 cm tender nodule near the cesarean section scar. The lesion was considered to be a suture granuloma preoperatively . The nodule was excised surgically from the depths of the scar by means of wide cutting-out of damaged musculus obliquus externus abdominis and surrounding tissues.

Macroscopically, the specimens, consisting of adipose and muscle tissue, measured 3x2 and 2.5x1.5 cm in dimension. Multiple ecchymotic and brown hemorragic foci were seen on the cut surface.

Microscopically, there were multiple endometriotic foci composed of proliferative type of endometrial

glands and stroma surrounded by dense fibrous tissue and striated muscle (Figure 1,2). Hemorrhage and secondary inflammatory response consisting predominantly of a diffuse infiltration of pigmented histiocytes (pseudoxanthoma cells) were seen in the endometriotic foci and adjacent muscle tissue.

Figure 1. Endometrial glands and stroma surrounded by dense fibrous tissue and striated muscle (H&E x 100).

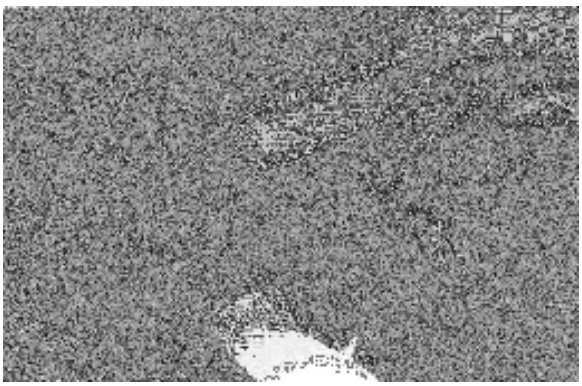

Figure 2. High power view similar area in Figure 1 (H&E x 200).

DISCUSSION

Endometriosis is defined as the presence of endometrial tissue outside the endometrium or myometrium. This common and important clinical entity, which is found in approximately 8-15% of menstruating females, often causes infertility, dysmenorrhea, pelvic pain and other problems (12). The disorder is principally a disease of woman in active reproductive life, most often in the third and fourth decades (1,13).

Three possibilites including regurgitation theory, metaplastic theory, and vascular or lymphatic dissemination theory have been put forward to explain the origin of these lesions (13).

Scar endometriosis is a rare entity; commonly found after operation on the uterus or uterine tubes, or less commonly following a laparotomy and hysterectomy procedure. It has been reported in a variety of different locations, including rectus abdominis muscle following cesarean section, skin and tissues adjacent to surgical scars, even abdominal wall endometrial implants at the site of needle passage for amniocentesis, and peri-anal region beneath the site of and episiotomy scar (12).

The frequency of endometriosis in and around the surgical scar from cesarean section is between 0.03-1% of women who underwent cesarean in the literature (2,14-15). Multiparaous women in the third decade of life were most frequently affected (3). The interval between prior surgical treatment and the onset of symptoms ranged from 6 months to 20 years, with an avarege of 4.8 years (3, 16). The majority of patients presented from 1 to 2 years after the precipitating operation (17). Our case was admitted 1 year after the second ceserian section.

Endometriosis usually presents at extragonadal sites (7). As can be seen in our case, the most common symptom is a painful nodule in the abdominal wall that increases in size or tenderness during menstruation (2,3,7,11,16,18). Some

patients may present as an emergency with abdominal pain (7)

Associated pelvic endometriosis is present in 24-25.9 % of patients (18,19). There was no previous history of endometriosis in our case.

The etiopatogenesis of the lesion is still uncertain and the theories put forward are controversial. There are two possible theories to explain the origin, spread of endometrial tissue during surgery and peritoneal metaplasia (14).

Endometriosis, as can be seen in this case, may not be considered preoperatively in the differential diagnosis of masses detected in or near cesarean scars. The late onset of symptoms after surgery is the usual reason for misdiagnosis (9). The differential diagnosis is extensive, including suture granulomas, hernias, post-operative ventral hernias abscesses, keloid, hematoma and malignant tumors (1,9,20).

The principle of management include adequate excision to prevent recurrence. Preoperative hormonal therapy is sometimes associated with an improvement of symptoms but it does not reduce the volume of the lesion (21). Although selected cases may require gynaecological referral and further medical therapy, because of the fact that medical management and diagnostic methods, including ultrasonography, computerized tomographic scan, and needle biopsy, yield poor results, wide excision of surgical scar is the treatment and diagnosis of choice (3,7,22,23). In this case wide excision was performed for diagnosis and treatment.

In summary, endometriosis is a disease rarely seen by general surgeons and it should be included in the differential diagnosis of woman with swelling related to umblicus, surgical scars, inguinal canal, and pelvis especially if symptoms are cyclical.

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