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MUSTAFA ÇELİK

ERTAN BÜLBÜLOĞLU

MEHMET AKİF BÜYÜKBEŞE

ALİ ÇETİNKAYA

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SHORT REPORT

Abdominal Wall Endometrioma: Localizing in Rectus Abdominus Sheath

Mustafa ÇELİK¹, Ertan BÜLBÜLOĞLU², Mehmet Akif BÜYÜKBEŞE³, Ali ÇETİNKAYA³

¹Department of Family Medicine, Faculty of Medicine, Kahramanmaraş Sütçü İmam University, Kahramanmaraş - Turkey

²Department of General Surgery, Faculty of Medicine, Kahramanmaraş Sütçü İmam University, Kahramanmaraş - Turkey

³Department of Internal Medicine, Faculty of Medicine, Kahramanmaraş Sütçü İmam University, Kahramanmaraş - Turkey

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Endometriosis is a functional endometrial tissue localized outside the uterus. When endometriosis develops as a distinct mass, the condition is classified as an endometrioma (1). The presence of endometriomas in and around caesarean section scars has been clearly established in the obstetrics and gynaecology literature with the reported incidence ranging from 0.03% to 0.4% (2,3).

In decreasing order of frequency, endometriosis affects the ovaries, uterine suspensory ligaments, rectovaginal septum, and pelvic peritoneum. Extra pelvic endometriosis will be defined as endometriotic lesions found elsewhere in the body, including the cervix, vagina, vulva, intestinal tract, urinary tract, abdominal wall, thoracic cage and lungs, extremities, and central nervous system (4,5).

Endometriosis involving the abdominal wall is an unusual phenomenon that should be considered in the differential diagnosis of abdominal wall masses in women (5).

We report here a case of abdominal wall endometrioma, localised at the medial edge of the right rectus abdominis muscle sheath midway between the umbilicus and Pfannenstiel scar after a caesarean operation.

Case Report

A 46-year-old woman who was seen at the primary care institute was referred to the outpatient department of internal medicine because of a tender mass in the abdominal wall between the umbilicus and Pfannenstiel incision scar. She had had this complaint for 2 years. Her history revealed no complaint of dysmenorrhea or infertility. She had undergone 3 caesarean sections; the last one was 4 years previously. There were no findings of endometriosis in these previous caesarean sections. Abdominal exam revealed nothing other than a well-healed Pfannenstiel incision scar. There was a painful, well circumscribed, fixed and approximately 5 x 5 cm in diameter mass midway between the umbilicus and Pfannenstiel incision scar (Figure 1). Gynaecology and general surgery consultations were done. Pelvic and rectal examinations were within normal limits.

The mass progressively enlarged and became more painful. The patient reported that her menstrual periods were normal, and denied increasing tenderness in the region of the mass during menstruation.

Abdominal ultrasound demonstrated a 47 x 22 mm solid mass over fascia (extra fascial mass), locating 15 mm below the surface of the skin and 5 cm below the umbilicus.

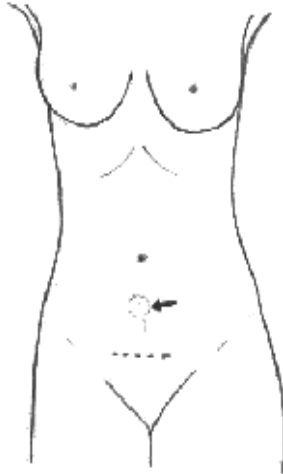


Figure 1. Localisation of the mass (arrow).

The abdominal computerised tomography (CT) scan demonstrated a subcutaneous, extra fascial mass which was localised to the right side of the midline, at the medial edge of the right rectus abdominus muscle sheath. Contrast scans revealed this solid mass to have a higher density than the muscle and lightly invading the neighbouring deep subcutaneous fatty layer. There was no intraabdominal or pelvic disease (Figure 2).

At operation, the mass was excised from the subcutaneous fat down to the anterior abdominal fascia. Microscopic examination of the mass confirmed endometriosis. Her postoperative course was uneventful

and she has remained without symptoms for 10 months.

Endometriosis is a relatively common condition of women of reproductive age. Seventy-five percent of symptomatic women are between the ages of 25 and 45 years. Our patient was 46 years old. Pain is the most common presenting symptom (6). The ectopic endometrium responds to the cyclic hormonal changes of the woman and bleeds into surrounding stroma causing pain from pressure. The repeated episodes of bleeding gives rise to severe surrounding fibrosis and scarring (7,8). All these symptoms were seen in our patient.

The pathogenesis of caesarean scar endometriomas is best explained by a combination of theories. The most practical and popular theory is that of direct implantation. During caesarean section, endometrial tissue is seeded into the wound. From this point, the tissue either proliferates under the same hormonal influences as endometrium in utero or induces metaplasia of the surrounding fascial tissue to form an endometrioma. Alternatively, endometrial cells may reach a caesarean scar via lymphatic or haematogenous routes and subsequently grow into an endometrioma by one of the mechanisms described above (9-11). Abdominal wall endometrioma is generally seen in the operation scar but rarely it may occur without any surgical intervention (1,3,8,10). In our case, endometrial tissue may have been sprinkled among the layers of the abdominal wall or may have been carried away from the operation site via the vascular pathway as a result of surgical trauma to the vessels during the operation.

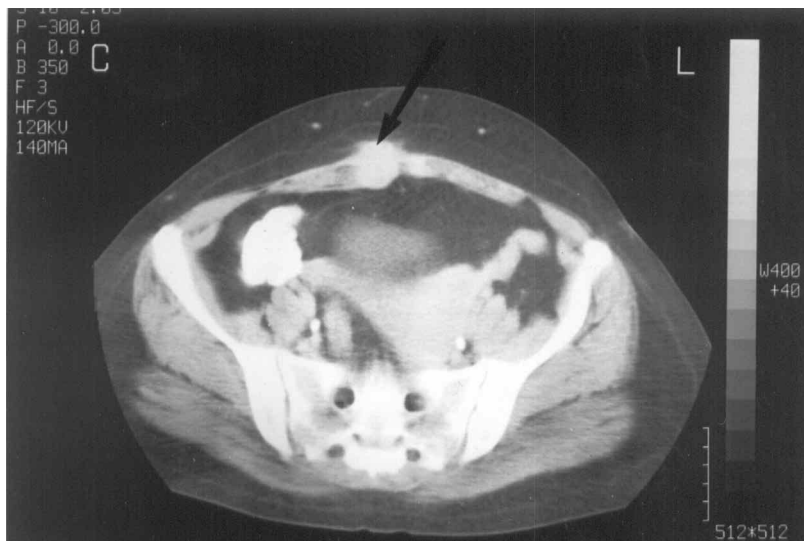


Figure 2. Computed tomography scan of abdominal wall endometrioma (arrow).

Clinical diagnosis of abdominal wall endometrioma has been confused with abscess, lipoma, hematoma, sebaceous cyst, suture granuloma, inguinal hernia, incisional hernia, desmoid tumor, sarcoma, lymphoma, or primary and metastatic cancer (4,5,9).

Ultrasonography, CT scan, and magnetic resonance imaging are useful noninvasive techniques when the differential diagnoses are numerous or more information about a known endometrioma is needed (10). Some papers suggest that a preoperative needle biopsy should be performed (1,10).

In all of the case reports, however, the authors found a history of symptoms fluctuating with the patients' menstrual cycles. This and the presence of a gynaecologic surgery scar are significant factors in establishing the diagnosis of endometrioma (9).

Various treatment modalities used in the management of pelvic endometriosis include nonsteroidal anti-

inflammatory agents, oral contraceptives, analogues of gonadotropin-releasing hormone, and transcutaneous nerve stimulation (12). Because of side effects of medication and the ineffectiveness of these treatments in cutaneous endometriomas, the treatment of choice for caesarean scar endometriomas and all abdominal wall endometriomas in general is complete surgical excision, including adjacent fascia or skin where necessary. Recurrences have been reported and generally have been managed by re-excision (3,4,8-10).

Since the mass was localised away from the incision, at the medial edge of the right rectus abdominus muscle sheath, and there were no pelvic endometriosis findings, we reported such a case of endometrioma. When evaluating masses in or near caesarean section scars, endometrioma should also be considered in the differential diagnosis.

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