

Abdominal Wall Endometriosis Following Laparoscopic Endometrioma Surgery: A Case Report

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ABSTRACT

Endometriosis is defined as the presence of ectopic, functioning endometrial tissue outside the uterine cavity. It is a common gynecological condition which is frequently located within the pelvis, but it can even be found in the lung, bowel, ureter and abdominal wall, etc. The expression 'abdominal wall endometriosis (AWE)' is used to indicate the presence of ectopic endometrium located far from the peritoneum, embedded in the subcutaneous fatty tissue and the abdominal wall muscle layers. AWE is a rare entity and occasionally presented to general surgeons as a lump in the abdomen. It can pose a diagnostic dilemma and should be in the differential diagnosis of lumps in the abdomen in females. Diagnosis is usually made following histological examination. This is a case report of abdominal wall endometriosis following laparoscopic endometrioma surgery.

Case: A 26-year-old woman, gravida:1, para:1, referred to our hospital, after 4 years from her cesarean section and 3 years from laparoscopic endometrioma removal, complaining of a palpable mass around the umbilicus which swells and pains during menses. The mass was firm, immobile and painless. Preoperative superficial tissue ultrasonography revealed a heterogenous mass under the skin just right side of the umbilicus. Excision with a wide margin was performed and the histopathological diagnosis of the surgical specimen was endometriosis. Abdominal wall endometriosis is often misdiagnosed as a hernia, suture granuloma, primary or metastatic tumor hematoma or lipoma of the abdominal wall, thus resulting in unexpected findings at surgery. A correct preoperative diagnosis would help in counseling the patient and in planning appropriate surgery.

Key words: abdominal wall, endometriosis, endometrioma, laparoscopy

LAPAROSKOPIK ENDOMETRIOMA CERRAHİSİNİ TAKİBEN GELİŞEN KARIN DUVARI ENDOMETRİOZİSİ: OLGU SUNUMU

ÖZET

Endometriosis uterin kavite dışında fonksiyon gören endometrial dokunun varlığı olarak tanımlanır. Bu jinekolojik durum sıklıkla pelviste yerleşirken akciğer, barsak, üreter ve karın duvarı gibi bölgelerde de ortaya çıkabilir. Karın duvarı endometriozisi (KDE) tanımı ektopik endometriumun peritondan uzakta, ciltaltı yağ dokusu ve karın duvarı kas tabakası arasında yerleştiğini belirtmek için kullanılır. KDE nadir görülür ve genellikle bu hastalar genel cerrahlara karında kitle şikayeti ile başvururlar. Bu durum tanısız ikilem oluşturabilir ve kadınlarda karında kitlenin ayrıklı tanısında olmalıdır. Tanı genellikle histolojik incelemeyi takiben konulur. Bu çalışmada laparoskopik endometrioma cerrahisi sonrası gelişen bir karın duvarı endometriozisi olgusunu sunduk. Olgu: 26 yaşında kadın hasta, gravida: 1, para: 1, sezaryen sonrası 4 yıl, laparoskopik endometrioma cerrahisi sonrası 3 yıl geçmiş, göbük etrafında ele gelen, mens sırasında şişen ve ağrıyan kitle şikayetiyle hastanemize refere edildi. Kitle sert, hareketsiz ve ağrısızdı. Ameliyat öncesi yüzeysel doku ultrasonografisinde cilt altında göbeğin hemen sağ tarafında yerleşen heterojen bir kitle saptandı. Kitle geniş bir cerrahi sınırla eksize edildikten sonra spesmenin histopatolojik tanısı endometriosis oldu. KDE preoperatif dönemde sıklıkla fitik, dikiş granülomu, primer veya metastatik tümör, hematoma veya karın duvarı lipomu gibi yanlış tanı almaktadır. Ameliyat öncesi doğru bir tanı hastaya uygun danışmalık vermede ve uygun cerrahi planlamada yardımcı olacaktır.

Anahtar sözcükler: karın duvarı, endometriosis, endometrioma, laparoskopi

Endometriosis is defined as the presence of ectopic, functioning endometrial tissue outside the uterine cavity. In most cases it is located within the pelvis, but it can even be found in the lung, bowel, ureter and abdominal wall (1). The expression 'abdominal wall

endometriosis (AWE)' is used to indicate the presence of ectopic endometrium located far from the peritoneum, embedded in the subcutaneous fatty tissue and the abdominal wall muscle layers. This entity is considered rare; nonetheless, given an estimated incidence of 0.03–1% after cesarean section (2) and its incidence is expected to rise in many countries. Many cases of AWE occur after

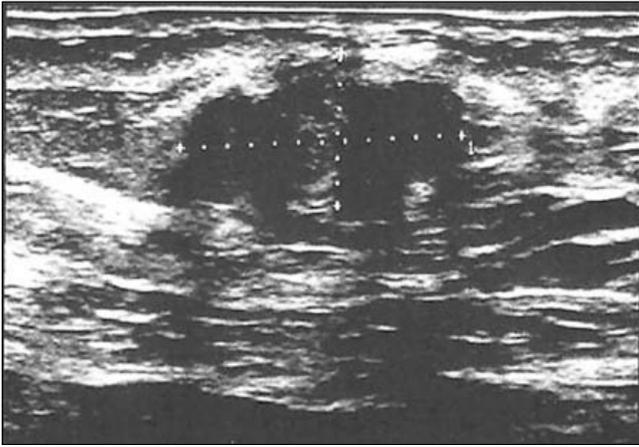


Figure 1. Preoperative ultrasonography in superficial soft tissue mass

laparoscopic or laparotomic surgery involving the uterine cavity; the majority of AWE reported has been described as being adjacent to cesarean section scars (1,3). However, this definition also includes lesions that are not a consequence of any previous surgery. The symptoms of AWE are nonspecific and include cyclic or continuous pain associated with a palpable mass (4). Patients may complain of signs and symptoms suggestive of concomitant pelvic endometriosis. Abdominal wall endometriosis is often misdiagnosed as a hernia, suture granuloma, primary or metastatic tumor hematoma or lipoma of the abdominal wall, thus resulting in unexpected findings at surgery (1). A correct preoperative diagnosis would help in counseling the patient and in planning appropriate surgery; knowledge of the nodule size and its extension through the abdominal muscular fascia would help in choosing the best method for closing the fascia defect.

In current case report we aimed to present a woman with abdominal wall endometriosis following laparoscopic endometrioma surgery.

Case report

a 26-year-old G1P1 woman presented to our hospital after 4 years from her cesarean section and 3 years from laparoscopic endometrioma removal complaining of a palpable mass around the umbilicus which swells and pains during menses. At the previous laparoscopic operation, a 5 cm in size endometrioma cyst localized in the left ovary had been drained and cyst capsule had been excised completely. During the operation several millimetric peritoneal endometriotic foci had been ablated. Histopathologic evaluation of the cystectomy material had confirmed the diagnosis of endometriosis, and the patient was placed on medical therapy. On last admission,

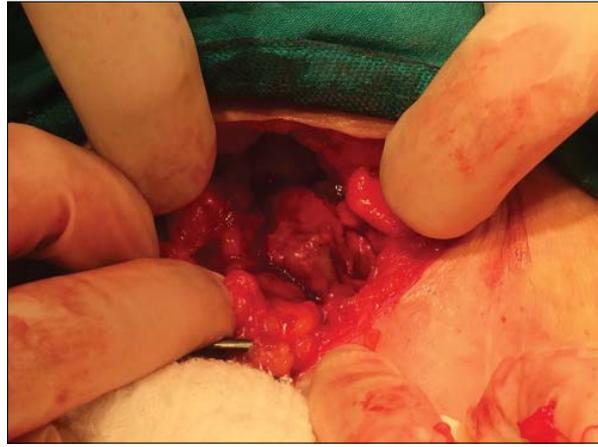


Figure 2. The image of the mass during operation

she reported that the pain in the abdominal wall began a few months after the laparoscopic surgery, was cyclic in nature, and had worsened progressively over the previous 3 months. Inspection showed a Pfannenstiel incision and 3 recovered scars compatible with trocar port sites: one inferior to the umbilicus (primary trocar) and the others over the rectus muscle on the left and right side (secondary trocar). On palpation, the mass was firm, immobile and painless. In laboratory tests, β -hCG was negative and CA125 was within normal ranges. Preoperative superficial tissue ultrasonography revealed a 11x22 mm measuring heterogeneous mass 7.8 mm deep from the skin just right side of the umbilicus (Figure 1). It was observed that lesion involved the fascia during surgical dissection. Excision with a wide margin was performed and the abdomen was closed primarily (Figure 2). Final histopathological diagnosis of the surgical specimen was endometriosis.

Discussion

Endometriosis is a common benign gynecologic disorder defined as the ectopic implantation of endometrial glands and stroma outside the uterine cavity. It was first described by von Rokitansky in 1860. Endometriosis is classified as internal or external according to the involvement of the uterine muscles. In internal endometriosis also called adenomyosis, the endometrial tissue is found within the uterine muscles. On the other hand external endometriosis can be classified as pelvic or extrapelvic endometriosis according to its location. Pelvic endometriosis includes lesions of the ovaries, cul-de-sac, fallopian tubes and pelvic peritoneum. Extrapelvic endometriosis refers to endometriotic implants found in other areas of the body, including the gastrointestinal tract, pulmonary structures, urinary system, abdominal wall, skin, and even the central nervous system.

The overall prevalence of endometriosis is as high as 10% for women of childbearing age (5). However, only a small proportion of cases would have the lesions in extrapelvic sites such as the skin or the other locations. AWE is a rare entity and it is an uncommon site of extrapelvic endometriosis where it usually develops in old surgical scars. Endometriosis has been reported in many types of surgical scars, including the scars resulting from endoscopy, cesarean section, tubal ligation, hysterectomy, inguinal hernia repair, laparotomy, needle tract of diagnostic amniocentesis and episiotomy scar (6). Scar endometriosis has also been reported in a laparoscopic trocar port site (7). With the widespread use of laparoscopic surgery for endometriosis and other gynecologic disorders, cases of port site endometriosis are increasing proportionally. Although this entity is considered rare, the incidence of endometriosis after cesarean section is also increasing depending on the rising cesarean rates (8). The cause of endometriosis is unclear and the proposed theories have remained controversial (9). However, cases of scar-related endometriosis, especially those occurring after incision of the gravid uterus, have supported the mechanical transplantation theory (10).

Excision is considered the treatment of choice for abdominal wall endometriosis, even for recurrent lesions.

However, a higher recurrence rate is found to be relevant with inadequate excision. One research showed that the size and extent of the affected area, especially muscle or peritoneum being involved, were prognostic factors for recurrence (11). Thus, it is important to recognize the extent of the involved area and to excise it with a wide margin. Wide excision with a clear margin is the only effective measure for preventing recurrence.

Abdominal wall endometriosis is often misdiagnosed as a hernia, suture granuloma, primary or metastatic tumor hematoma or lipoma of the abdominal wall, thus resulting in unexpected findings at surgery. Ultrasound and Magnetic Resonance Imaging are useful diagnostic tools in preoperative evaluation of the patients (12). A correct preoperative diagnosis would help in counseling the patient and in planning appropriate surgery.

In conclusion, when a cyclic painful and swelling mass in a surgical scar such as a trocar site is found in women of reproductive age with a history of obstetric or pelvic surgery, endometriosis should be considered in differential diagnosis of that abdominal mass.

References

- Horton JD, DeZee KJ, Ahnfeldt EP, Wagner M. Abdominal wall endometriosis: a surgeon's perspective and review of 445 cases. *Am J Surg* 2008;196:207–212.
- Dwivedi AJ, Agrawal SN, Silva YJ. Abdominal wall endometriomas. *Dig Dis Sci* 2002;47:456–461.
- Hensen JH, Van Breda Vriesman AC, Puylaert JB. Abdominal wall endometriosis: clinical presentation and imaging features with emphasis on sonography. *AJR Am J Roentgenol* 2006;186:616–620.
- Patterson GK, Winburn GB. Abdominal wall endometriomas: report of eight cases. *Am Surg* 1999;65:36–39.
- Fujimoto A, Osuga Y, Tsutsumi O, Fujii T. Successful laparoscopic treatment of ileo-cecal endometriosis producing bowel obstruction. *J Obstet Gynaecol Res* 2001;27:221–223.
- Bakacak M, Bostancı MS, Karakoç G, Gören K, Bakacak Z, Hançerlioğlu KÖ. Epizyotomi Skarında Gelişen Endometriozis: Olgu Sunumu *The Journal of Gynecology - Obstetrics and Neonatology* 2013;10:1555-1557
- Emre A, Akbulut S, Yılmaz M, Bozdağ Z. Laparoscopic trocar port site endometriosis: a case report and brief literature review. *Int Surg* 2012;97:135-9.
- Erkılınc S, Ümit C, Erkılınc G, Özer İ, Güzel Aİ, Doğanay M. Abdominal Wall Endometriosis Following Cesarean Section: Report of a Case *Gynecology Obstetrics & Reproductive Medicine*. 2014;20:60-61
- Higgins JP, Thompson SG, Deeks JJ, Altman DG. Measuring inconsistency in meta-analyses. *BMJ* 2003;327:557-560.
- Khoo JJ. Scar endometriosis presenting as an acute abdomen: A case report. *Aust NZ J Obstet Gynaecol* 2003;43:164-165.
- Zhao X, Lang J, Leng J, Liu Z, Sun D, Zhu L. Abdominal wall endometriomas. *Int J Gynaecol Obstet* 2005;90:218-222.
- Özler A, Yıldız Ş, Değirmencioğlu İ. Karın duvarı endometriozisi: Olgu sunumu *Abdominal wall endometriosis; A Case Report. Dicle Medical Journal* 2010;37:410-412