

A Giant Parasitic Leiomyoma Mimicking an Ovarian Tumor: A Case Report

OVER TÜMÖRÜNÜ TAKLİT EDEN PARASİTİK LEİOMYOMA: OLGU SUNUMU

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Abstract

We report a parasitic leiomyoma together with adenomyosis in the right broad ligament in a 40 year old infertile woman mimicking an ovarian cancer on sonography with the elevated levels of CA-125. Based on the sonographic appearance and unusual location, a preoperative diagnosis of a primary malignant ovarian tumor was made. In this case report, the difficulties in making decision about the ultimate diagnosis of a rare type of lesion, clinical and ultrasonographical features of the parasitic fibroids are discussed. Association of raised CA-125 levels with various types of gynecological conditions is reviewed.

Key Words: Leiomyoma, adenomyosis, CA-125 antigen, ovarian cancer

Özet

Kırk yaşında infertil bir hastada sonografide ovaryan kanseri taklit eden ve broad ligaman içinde adenomyosis ile birlikte olan CA-125 seviyesi yüksek parasitik leiomyoma olgu olarak sunulmaktadır. Lezyonun sonografik görünümü ve atipik lokalizasyonuna dayanılarak preoperatif olarak primer malign ovaryan tümör teşhisi konulmuştur. Bu vakada, seyrek rastlanan bu tip lezyonların teşhisinde son kararın verilmesindeki zorluklar ve parasitik fibroidlerin klinik ve ultrasonografik özellikleri tartışılmıştır. Artmış CA-125 seviyeleri ile birçok jinekolojik tanı arasındaki ilişki gözden geçirilmiştir.

Anahtar Kelimeler: Leiomyoma, adenomyosis, CA-125 antijeni, over kanseri

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Uterine leiomyoma is the most common benign tumor of uterus, occurring in 20-40% of women in reproductive age.¹ Types of fibroids are submucosal, intramural, subserosal, pedunculated, intraligamentous and parasitic. These tumors are called parasitic when they become separated from the uterus and the blood supply is derived from the omentum, pelvic wall or other organs.² They must always be found in the differential diagnosis of a pelvic mass. Preoperative management must be carefully done and all the possibilities must be considered.

CA-125 is a cell surface antigen which is a high molecular-weight glycoprotein recognized by

the murine monoclonal antibody OC 125. Raised CA-125 levels are associated with nonmucinous epithelial ovarian tumors, advanced-stage endometrial cancer, endometriosis, adenomyosis, fibroids, pelvic inflammatory disease. But association of elevated CA-125 with leiomyoma is inconsistent and the increase is small.³

We report a case of a parasitic leiomyoma which is thought to be an ovarian malignancy preoperatively due to its unusual location and association with high levels of CA-125. The histological evaluation is an adenomyosis which is also a rare and unusual finding in the broad ligament.

Case Report

A 40 year-old nulliparous woman, married for 1.5 years, was admitted to our infertility clinic. On bimanual examination nearly 15 cm solid, nontender and mobile mass, filling the right adnexial region was palpated. Transvaginal and abdominal

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sonography were performed and a 12 x 10 cm solid mass was demonstrated adjacent to the uterus (Logic 7, GE, Penta Med AŞ, Ankara, Turkey). Uterus was normal and in the left ovary a simple cyst of 5x6 mm in size was measured. The solid mass with whorled shape and characteristic acoustic shadowing was believed to be a solid right ovarian tumor. Of the laboratory findings only the CA-125 level was 110 mIU/ml (normal range 0-25 mIU/ml). Hemogram values, renal and liver function tests were normal.

The atypical imaging features in terms of its appearance and location and the resemblance of a primary ovarian malignancy make us to plan the operation accordingly. Patient underwent laparotomy which revealed a giant mass originating in the right broad ligament. The mass which was covered by omentum was 200 x 150 mm in size and the blood supply was derived predominantly from the omental vessels (Figure 1). Uterus and right ovary were normal. Simple cyst in the left ovary was excised. The giant mass was excised successfully. In the frozen section no malignancy was seen in both of the specimens. Conservative surgery was done with the preservation of the fertility capacity of the patient. Intraoperative and postoperative periods were uneventful.

Pathological examination revealed as parasitic leiomyoma and adenomyosis in the mass and luteinized follicular cyst in the cystectomy material. Leiomyoma was composed of intersecting fascicles with no pleomorphism or necrosis. Fascicular growth pattern of leiomyoma involved widespread regions of endometrial glands surrounded by endometrial stroma (Figure 2). An informed consent was obtained from the patient about the use of her photographs.

Discussion

The management strategy of a pelvic mass requires first of all the differential diagnosis of the mass. In the present case preoperative diagnosis was ovarian cancer. The reasons why we think so are as follows: First; sonographically the giant mass in the right adnexa shows the atypical imaging features in terms of its appearance and location. Second; CA-

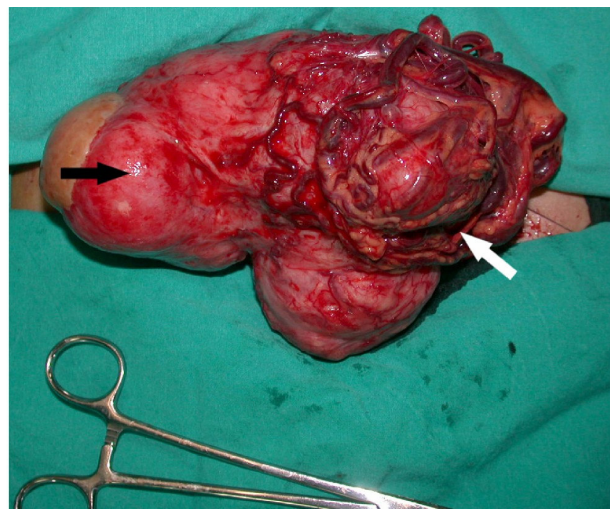


Figure 1. Intraoperative appearance of parasitic leiomyoma, covered by omentum, was 200 x 150 mm in size and the blood supply was derived predominantly from the omental vessels (black arrow: the mass itself, white arrow: omental vessels).

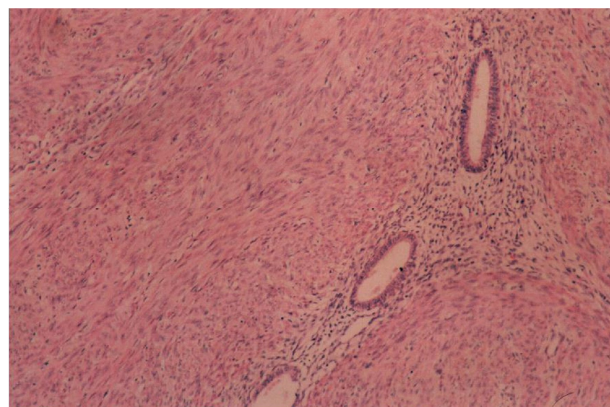


Figure 2. Fascicular growth pattern of leiomyoma with an area of endometriosis (Hematoxylin & Eosin X 100).

125 level is high enough to be suspicious about ovarian malignancy. Third; the patient suffers from infertility which is a risk factor for ovarian malignancy. But besides these, all of the possible conditions such as leiomyomas should be thought in the differential diagnosis of a pelvic mass.

Uterine leiomyomas, known as fibroids are benign overgrowth of the smooth muscle cells, fibrous connective tissue arising from the smooth muscle layer of the uterus and are surrounded by a

pseudocapsule of compressed muscle fibers. Parasitic leiomyoma is a rare type of fibroid which occurs when a pedunculated myoma adheres to other sites and acquires blood supply other than the uterus; finally losing its attachment.^{1,2} Adenomyosis is a common gynecological problem in the perimenopausal age. Histologically, it is defined as the presence of endometrial glands and stroma within the myometrium. However, adenomyosis in the broad ligament is extremely rare.⁴

In the diagnosis of a pelvic mass; transabdominal and transvaginal sonography are the primary and most cost effective diagnostic tools.⁵ Typical appearance of a fibroid on ultrasonography is a whorled sign with characteristic acoustic shadowing.⁶ Unfortunately in our case we could not see this sonographic appearance and besides we could not either see both ovaries and uterus apart from this mass. Parasitic leiomyomas can mimic a variety of adnexal masses. Because of their unusual appearance they can be recognized as an ovarian tumor. The diagnosis is only made when the parasitic fibroid is seen separate from both ovaries and uterus on sonography. As in our present case, the organ of origin of the leiomyoma can not be established preoperatively with the use of advanced ultrasound equipment and the transvaginal probe.

In the literature review, an inconsistent association is found between increased levels of CA-125 and fibroids and this increase is mild.³ However in our case CA-125 level was high and suspi-

cion of an ovarian malignancy was always in our minds before the operation. But, CA-125 level may be high in adenomyosis as in the presented case. Since such type of location is very atypical for adenomyosis, before the operation we did not have any suspicion of adenomyosis .

Consequently, parasitic leiomyomas may have a wide variety of symptoms and unusual appearances requiring a greater diagnostic challenge.^{1,2} This case illustrates that a giant adnexal mass with an unusual appearance and location in sonography with high levels of CA-125 in an infertile woman should be evaluated carefully. In the differential diagnosis extremely rare conditions must be thought preoperatively.

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