

Inguinal Endometriosis Mimicking Incarcerated Groin Hernia

Boğulmuş Kasık Fıtığını Taklit Eden Inguinal Endometriozis

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Reyhan BAYRAK⁴¹Numune Training and Research Hospital, Department of General Surgery, Ankara, Turkey²Turgut Özal University, Department of General Surgery, Faculty of Medicine, Ankara, Turkey³Turgut Özal University, Department of Radiology, Faculty of Medicine, Ankara, Turkey⁴Turgut Özal University, Department of Pathology, Faculty of Medicine, Ankara, Turkey**ABSTRACT**

Although endometriosis is a common gynecological condition in women of reproductive ages, inguinal region has been rarely reported as a localization of this disease. A 35-year-old woman was admitted to emergency room with a complaint of painful swelling in her right groin. On examination, a tender and irreducible mass, suspected an incarcerated inguinal hernia, was found at the medial to the deep inguinal ring. When the patient was questioned in detail, it was determined that her complaints showed exacerbation during the menstrual periods. In addition, she had a past history of laparoscopic excision for a pelvic endometrioma five years ago. Ultrasonography and magnetic resonance imaging revealed a semi-solid lesion with irregular boundaries in the right groin. At operation, a brownish irregular mass attached to the round ligament was totally excised, and then the defect was closed with using a polypropylene mesh. Histologically, the excised lesion was diagnosed as endometrioma. Although rare, inguinal endometriosis can mimic an incarcerated groin hernia, and should be considered in the differential diagnosis of inguinal masses, particularly in fertile women with cyclic symptoms.

Keywords: Endometrioma; endometriosis; groin; inguinal hernia**ÖZ**

Endometriozis doğurgan yaştaki kadınlarda sık görülen jinekolojik bir durum olmasına karşın, kasık bölgesi nadiren bu hastalığın yerleşim yeri olarak bildirilmiştir. Otuzbeş yaşındaki kadın hasta sağ kasığında ağrılı şişlik şikayeti ile acil servise başvurdu. Muayenede, derin inguinal halkanın medialinde, boğulmuş kasık fıtığından şüphelenilen, redükte edilemeyen hassas bir kitle saptandı. Hasta detaylı sorgulandığında, şikayetlerinin menstrüasyon dönemlerinde alevlenme gösterdiği tespit edildi. Ek olarak, beş yıl önce pelvik endometrioma için laparoskopik eksizyon öyküsü de vardı. Ultrasonografi ve manyetik rezonans görüntüleme sağ kasıkta düzensiz sınırları olan yarı-solid bir lezyon saptadı. Operasyonda, yuvarlak ligamana yapışık, kahverengimsi, düzensiz bir kitle çıkartıldı ve ardından oluşan defekt polipropilen yama kullanılarak kapatıldı. Histolojik olarak, çıkartılan lezyona endometrioma tanısı kondu. Nadir görülmekle birlikte, kasık endometriozisi boğulmuş kasık fıtığını taklit edebilir, ve özellikle siklik semptomları olan doğurgan kadınlarda, kasık kitlelerin ayırıcı tanısında düşünülmelidir.

Anahtar Kelimeler: Endometrioma, endometriozis, kasık, kasık fıtığı**Introduction**

Endometriosis is a common gynecologic disease which is defined as the presence of endometrial glands and stroma outside the uterine cavity. The ovaries, rectovaginal septum, and pelvic peritoneum are the most affected sites. However, inguinal region is an unusual localization of the disease, and has been mostly reported as single cases or small series in the literature (1-3). Inguinal endometriosis (IE) can be easily misdiagnosed as groin hernia or other groin pathologies. However, a painful swelling related to the menstrual cycle should alert the physicians for the diagnosis of IE. Herein, an interesting and educational case of IE mimicking an incarcerated groin hernia was presented.

Case Report

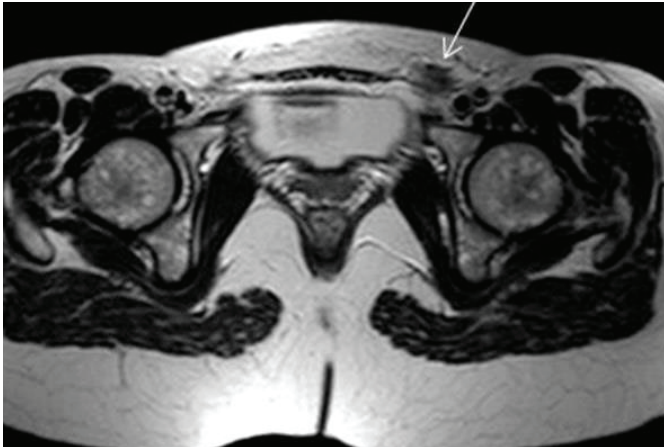
AA 35-year-old premenopausal woman was admitted to emergency room with a painful swelling in the right inguinal region. On examination, a 2-cm tenderness irreducible mass mimicking an incarcerated inguinal hernia was found at the medial to the deep inguinal ring. Her symptoms showed exacerbation during the menstrual periods within the last two years. In addition, she had a laparoscopic excision for a pelvic endometrioma five years ago. On ultrasonography (US), a 3×3 cm, semi-solid, ill-defined, hypoechoic mass with increased intralesional vascular flow suspected for endometriosis was detected within the right inguinal canal. Magnetic resonance imaging (MRI) revealed an inguinal mass with high signal intensity on T1-weighted images, and low

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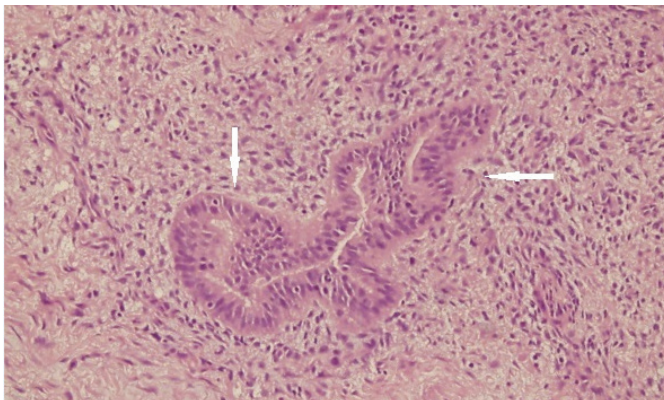
signal intensity on the T2-weighted sequence (Figure 1).

Figure 1: The inguinal canal is shown as a low-signal-intensity on the T2-weighted sequence (arrow) consistent with hemorrhage.



At operation, a brownish nodular mass with irregular borders was found to be attached to the round ligament at the medial to the deep inguinal ring, and then was totally excised with wide margins. Lichtenstein technique was performed for the defect on the posterior wall of the inguinal area. The excised material was composed of endometrial type glands and stroma histopathologically, and thus was diagnosed as endometrioma (Figure 2). The postoperative course was uneventful, and the patient was discharged on third day. No recurrence was observed during the follow-up period of two years.

Figure 2: Endometriosis consisting of endometrial glands surrounded by endometrial stroma (HE×200)



Discussion

Endometriosis is a common gynecologic disorder with an incidence of 10–15% of all fertile women (4). However, inguinal region is a rare localization which accounts for less than 1% of the cases affected by endometriosis (2). Although it can occur without a history of any surgery, iatrogenic implantation of endometrial tissue especially during obstetric and gynecological operations is the most accepted theory in its pathophysiology (5). The majority of IE occur in the right side as was on the present case. The predominance of right side has been explained by various theories such as atypical lymphatic spread from the intrapelvic cavity to the right inguinal canal or the presence of a clockwise intraperitoneal fluid circulation. However, the exact mechanism has not been yet demonstrated. In the present case, the theories of atypical lymphatic spread and previous pelvic surgery seem to be more valid etiological factors in the pathophysiology. Patients with IE have variable symptomatology; however, painful groin mass associated with menstrual period is the most significant clinical sign in the diagnosis. Moreover, these lesions may be present with

bloody discharge from a groin sinus. In our patient, the groin lump fluctuated in size with menstruation, and was not more prominent while she was standing or coughing.

Although US and MRI are the primary diagnostic imaging tools, radiological findings are usually non-specific. At sonographic examination, IE has been described as solid, semi-solid, or cystic lesions (6). However, it was often reported as a solid hypoechoic mass on sonography, as was in our case. In differential diagnosis, sarcoma, lymphoma, metastasis, abscess, and hematoma should be considered for solid lesions. On the other hand, the lesions with cystic nature can be confused with hydrocele of the canal of Nuck and inguinal hernia (7). Similarly, the present case was initially suspected of an incarcerated groin hernia. In addition, IE may be associated with simultaneous pelvic endometriosis (8). Therefore, MRI is necessary in the preoperative evaluation of the patients with IE. In our case, MRI showed an irregular solid mass within the inguinal canal. Additionally, no pelvic endometriosis was detected on MRI.

Malignant transformation was rarely reported, and complete surgical excision is accepted as the curative treatment with low recurrence rate (9). Generally, recurrence seems to be related to incomplete surgery. In the present case, the mass was totally excised with normal surrounding tissue, and no recurrence was observed within the follow-up period of two years.

In conclusion, IE is a rare form of endometriosis, and can be easily mistaken of groin hernia. Additionally, it should be kept in mind that IE should be considered in the differential diagnosis of painful inguinal masses associated with menstrual period in women of reproductive ages. Although recurrence and malignant transformation are extremely rare, complete surgical excision with adequate margins should be the choice of treatment.

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