# Intrascrotal extratesticular liposarcoma: A rare case report

İntraskrotal ekstratestiküler liposarkom: Nadir bir olgu sunumu

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#### Özet

İntraskrotal, ekstratestiküler liposarkomlar oldukça nadir görülen tümörlerdir. Literatürde şimdiye kadar izole olgu sunumları şeklinde bildirilen, az sayıda vaka bulunmaktadır. Hastalar genellikle skrotal bölgede yavaş büyüyen, ağrısız, fıtık benzeri bir kitle ile başvurmaktadırlar. En uygun yaklasım kitlenin cerrahi eksizyonudur. Adjuvan tedavi konusunda ise fikirbirliği bulunmamaktadır. Bu tümörlerin spermatik kord kaynaklı malignitelerden ayırtedilmesi gerekmektedir. Değişik alt tipleri olan skrotal liposarkomlar için standart bir tedavi yöntemi henüz bulunmamaktadır. Bu olgu sunumunda, skrotal kitle ile başvuran ve cerrahi eksizyon sonrası skrotal liposarkom saptanan 41 yaşındaki hasta, literatür bilgileri eşliğinde sunulmuştur. Anahtar Kelimeler: skrotum; ekstratestiküler

kitle; liposarkom

#### Abstract

Intrascrotal, extratesticular liposarcomas are relatively rare tumors. There have been few cases reported as isolated case reports in the literature. The patients usually apply to the hospital with a hernia-like painless mass growing slowly in the scrotal region. The most appropriate approach is surgical excision of the mass. There is no accepted consensus on adjuvant therapy. These tumors need to be distinguished from other spermatic cord-related malignancies. There is no standard treatment method for scrotal liposarcomas that have several subtypes. In this case report, with a review of the literature, it was aimed to present the case of a 41-year-old patient who applied to our clinic with a scrotal mass and who was determined to have scrotal liposarcoma after surgical excision.

Keywords: scrotum; extratesticular mass; liposarcoma.

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## Introduction

Extratesticular masses are rarely seen masses carrying a benign trait. The most commonly observed benign extratesticular masses are lipomas. Malignant extratesticular tumors are mostly solid, forming in the spermatic cord. Sarcomas are the most commonly seen malignant extratesticular masses, constituting approximately 10-20% of these masses. The majority of extratesticular malignant masses in the adult population are identified as liposarcoma and as rhabdomyosarcoma in children (1). Intrascrotal liposarcoma is a rarely seen malignancy (2). In this case report, with a review of the literature, a 41-year-old patient who applied with a 10x10 cm mass in the scrotum and who was determined to have a scrotal mixed type liposarcoma (myxoid and round cell) was presented.

### **Case Report**

A 41-year-old patient applied to our outpatient clinic with a one-year history of a growing mass in the scrotal region, in time. Physical examination determined a lobule, rigid mass approximately 10x10 cm in size, filling the left scrotum completely, extending to the scrotal raphe and giving the impression that it originated from soft tissue. In scrotal color Doppler ultrasonography, a 10x10 cm solid mass lesion was detected in the scrotum, located in the midline and laterally pressing the scrotal cavity, showing vascularization, lobulated contour and heterogeneous echo pattern. Considering the possibility of a malignancy, an abdominal Magnetic Resonance (MR) imaging was conducted. It was determined that the mass consisted of areas in the fat intensity, showed heterogeneous contrast involvement, originated from the epididymis and was extratesticular (Figures 1). No abnormality was determined that could be consistent with metastasis in the abdomen. No pathology was monitored in the posterior-anterior lung graphy of the patient.

Pre-operative routine biochemistry, total blood count, serum lactate dehydrogenase (LDH), alpha fetoprotein (AFP), and beta human chorionic gonadotropin (b-HCG) results were found normal. The patient was informed consent. After completing preoperative preparations, the mass was excised by performing inguino-scrotal incision in supine position under spinal anesthesia. During excision, the mass was observed no involvement



Figure 1: Massive mass and testes seen separately in both sides (white arrows).

with the epididymis, funiculus spermaticus and the testes, and it was seen that the mass originated from the scrotal soft tissue (Figures 2). The result of histopathological examination reported that the mass was scrotal mixed type liposarcoma comprising myxoid and round cell components (Figures 3, 4).



Figure 2: Giant scrotal mass is seen separately from both lateral testes.



**Figure 3:** Tumor showing relatively well-contour lobulation where numerous lipoblasts are observed in the hypocellular plexiform patter (HEX200).

### Discussion

Benign spermatic cord lipomas constitute more than 80% of extratesticular masses seen in the scrotal and inguinal region (1, 2). Papillary cystadenomas and leiomyomas constitute most of the other benign solid tumors (3). These tumors can stem from other organisms accompanying the testes in the embryonic period when they descend to the scrotum. Paratesticular and epididymis-related primary malignancies are rare and adenocarcinoma, rhabdomyosarcoma, leiomyosarcoma, and liposarcoma are the most frequently encountered ones (4). 10-20% of extratesticular masses are malignant (2). While sarcomas are the most commonly seen malignant tumors, rhabdomyosarcomas are seen more in the pediatric period and liposarcomas in the adult period (5). Although liposarcomas can be seen at every age, they are most frequently seen between the ages of 40 and 60. They are most often encountered in the lower extremity (41%), and then in the retroperitoneum (19%) and in the inguinal region (12%) (6). Liposarcomas are usually painless soft tissue masses reaching great sizes ranging 3 to 30 cm, growing slowly in months or years, comprising calcified areas, and they are gray, white or yellow in color macroscopically and heterogeneous (7).



Figure 4: Tumoral lesion in which numerous lipoblasts are seen.

General imaging method for the diagnosis of scrotal liposarcomas is ultrasonography and they are monitored as heterogeneous masses with relatively low vascularity. However, in comparison to ultrasonography, CT and MR imaging are more sensitive and more likely to identify soft tissue and fatty tissue easily (5, 8).

The committee of WHO Classification of Soft Tissue Tumors divided soft tissue liposarcomas into 5 types in 2002: well-differentiated, undifferentiated, myxoid, pleomorphic, and mixed. Well-differentiated liposarcoma is a low-grade tumor whose identified types are lipoma-like, sclerotic, inflammatory, round cell, and meningothelial liposarcoma (9). Well-differentiated liposarcomas can show local relapse although they do not carry metastatic potentials. Round cell type is poorly-differentiated and highly metastatic.

Spermatic cord-related liposarcomas are generally well-differentiated tumors on which a wide surgical excision and hemiscrotectomy are performed (5). Different rates have been reported for recurrence. It has been reported in some studies that a 25% recurrence rate is seen and in one of every ten patient, hematogeneous or lymphogenous metastasis can occur (3, 7). Even if adequate surgical resection is performed, there are studies reporting high local recurrence rates, such as 70% for inguinal lesions and 91% for retroperitoneal lesions (9). It has been reported in another study that elevated LDH can be used as a sign for retroperitoneal disease and poor prognosis and that an adjuvant therapy for a better survival is needed (10). If sufficient tumor-free surgical margin cannot be obtained, radiotherapy for the inguinal region and scrotum should be considered in addition to surgery. In our case, there was no surgical margin involvement as a result of mass excision, and an additional therapy was not planned for the patient. In the end of a 29-month followup of this patient, local relapse or distant metastasis was not observed.

In conclusion, though intrascrotal and extratesticular masses are usually benign, the possibility of a malignancy should be considered. Conducting an attentive diagnosis and treatment of the disease will decrease the probability of local relapse and distant metastasis.

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