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# A primary leiomyoma of the epididymis: a case report

## *Primer epididym leiomyomu: olgu sunumu*

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**Abstract**

Tumors of the epididymis, both primary and secondary are very rare. Leiomyomas are the second most common tumors of the epididymis. In this study we reported a 65- year- old male case with epididymal leiomyoma, which was difficult to diagnose, and briefly discussed clinical features and diagnosis as well as treatment which based on anatomo-histopathological analysis.

**Keywords:** Epididymis, leiomyoma, intrascrotal mass

**Özet**

Epididymisin hem primer hem de sekonder tümörleri oldukça enderdir. Leiomyomalar ikinci en yaygın epididymis tümörleridir. Bu çalışmada, gerçekte tanısı zor olan epididymal leiomyomalı 65 yaşında erkek bir hasta rapor edilmiştir. Vakamız anatomik-patolojik analizler sonucunda, tedavinin yanı sıra klinik ve tanı özellikleri kısaca tartışılmıştır.

**Anahtar sözcükler:** Epididimis, leiomyoma, intraskrotal kitle

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## Introduction

Primary tumors of the epididymis are rare and most commonly benign [1, 2]. Adenomatoid tumors of the epididymis are most common and typically occur in the third and fourth decade of the life [2, 3]. Leiomyomas are the second most common tumors of the epididymis. These lesions usually tend to be painless are often associated with hydrocele [1, 2]. In this study it is presented a case with primary epididymal leiomyoma, which was confirmed using a monoclonal antibody, and discussed clinical and histopathological features of this case.

## Case report

A 65-year-old case with the painless left intrascrotal mass which had been gradually increasing during 5 years was admitted to the Urology Clinic of Sivas State Hospital. Physical examination revealed minimal hydrocele and mass in the scrotum at the epididymal region and no other symptoms were detected. History was unremarkable. Blood results, the tumor markers (α-fetoprotein, human chorionic gonadotropin, and

lactate dehydrogenase) were normal. In addition ultrasound imaging showed well defined lobulated, hypoechoic mass in the caput of the left epididymis (Figure 1). Inguinal exploration with wedge resection of the mass was performed. Apperance of the mass was interpreted of uncertain malignant potential and radical orchiectomy was performed. It was observed that the mass was occupied at the caput epididymis and, was 6x4x4 cm and uncapsulated, and having elasticity. Section of the mass was gray-yellow colour with the homogeneous reticular appearance (Figure 2). Routinely processed histological sections of the tumor showed a benign spindle cell neoplasm. Immunohistochemical evaluation showed cytoplasmic positivity with monoclonal smooth muscle actin (clone 14A, Neomarkers, CA, USA) (Figure 3). Cells were negative for CD34 and S 100. These findings showed that a mass was the benign primary epididymal leiomyoma. At duration of 2-year follow-up, the patient was well without evidence of disease after surgery.

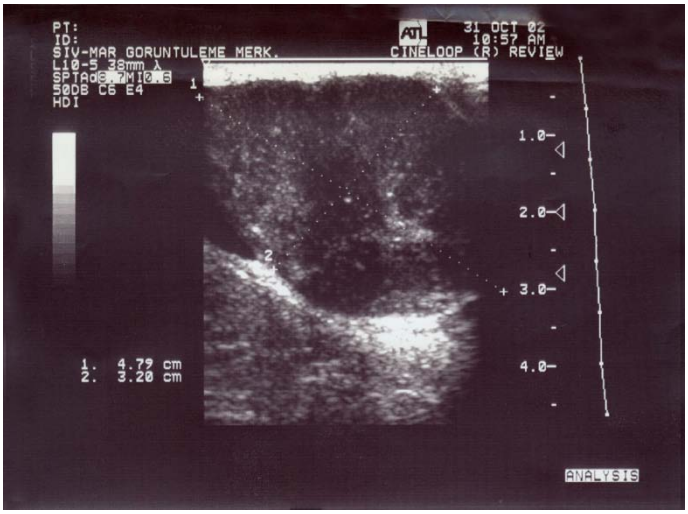


**Figure 1. Ultrasonographic apperance of the epididymal lesion.**

## Discussion

Generally leiomyomas may originate from any anatomic location of smooth muscle in the genitourinary system [1, 4], and from any portion of the epididymis [2]. Leiomyoma of the epididiymis are described in literature as a rare, grow slowly and usually painless intrascrotal neoplasms [1, 2, 5, 6]. In previous studies about leiomyoma of the genitourinary tract, it is suggested that authors based their diagnosis on a gross anatomical analysis or only sonographic findings [6, 7, 8]. In fact these lesions are often difficult to differentiate from a malignant tumor. The ultrasonographic imaging provides additional information about the mass but not exact diagnosis [5]. Since it is very difficult to perform an exact preoperative diagnosis, especially if the diagnosis is unclear, anatomopathological analysis must be performed [9]. Therefore, surgical resection, and subsequent gross anatomopathological analysis after complete excision and light microscopic examination is the most reliable means of distinguishing leiomyoma from other and usually malignant tumors of the genitourinary tract [9, 10, 11]. Furthermore, McClellan DS et al, suggested that as in all intrascrotal tumors, diagnosis, treatment and prognosis must be based on microscopic findings after removal of the tumor since excluding possibility of malignancy [10].

In our case also since we could not exclude possiblity of malignancy, it is performed radical orchiectomy. Following gross and light microscopic evaluation, it was diagnosed the primary leiomyoma of the caput epididymis based on specific immunohistochemical stains. A positive immunohistochemical reaction with monoclonal antibodies to actin is proof of smooth muscle origin in a diagnosis of leiomyoma [1]. Although actin positivity is demonstrated in leiomyoma, it does not exclude other more similar diagnose, such as

imflammatory myofibroblastic tumor. Tumors which different from leiomyoma, first inflammatory myofibroblastic tumor shows prominent fibrosis and any type of an inflammatory component, second solitary fibrous tumor shows positive reaction with CD34 and third a peripheral nerve sheat tumor was a positive with S 100 [1, 9]. There was not prominent fibrosis and inflammatory reaction in our case. In addition presented lesion did not show a positivity with CD34 and S100.

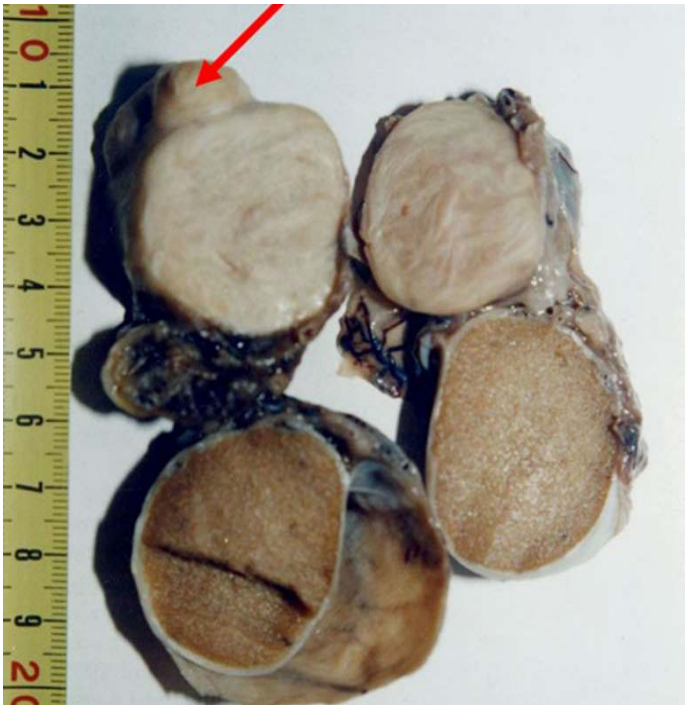

**Figure 2. Gross anatomical apperance of the epididymal mass. The mass was out of the tunica albuginea and localised in the caput epdidymis at the left upper corner of the figure (arrow).**

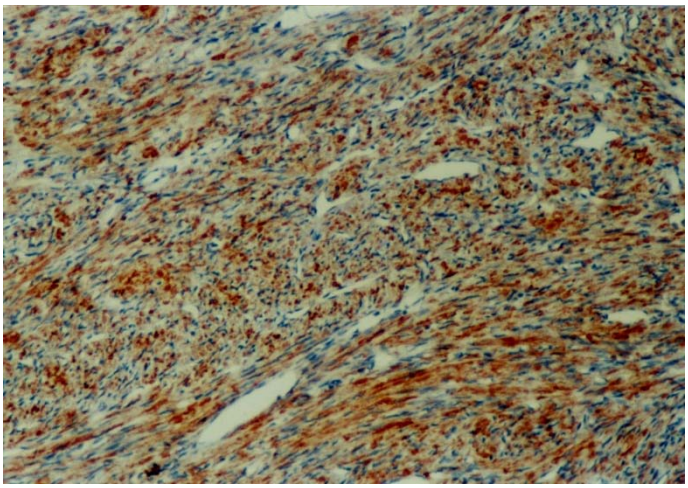

**Figure 3. Smooth muscle cell neoplasm, leiomyoma, consisted of neoplastic cells with cytoplasmic positivity for α smooth muscle isoactin protein using specific monoclonal antibody. (Immunohistochemical detection with the biotinylated streptavidin method x 100)**

As a result, in this study it is reported a case of primary leiomyoma of the epididymis and discussed with clinical, gross anatomopathologic and histological features. To performe a true preoperative diagnosis of epididymal leiomyoma, a very rare neoplasm is very difficult, only histological examination with immunohistochemical stains can prove the presence of this benign tumor.

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