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Testisde Yerleşim Gösteren Leiomyom: Olgu Sunumu

Intra-Testicular Leiomyoma

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Özet

Leiomyomlar düz kas hücrelerinden köken alan benign tümörlerdir. En sık uterusda görülmek ile birlikte renal pelviste, mesane, spermatik kord, epididim, prostat, skrotum ve glans peniste de görülürler. Ancak tunika albugineada oldukça nadirdir. Biz burada 72 yaşında tunika albugineada yerleşim gösteren bir leiomyom olgusunu sunuyoruz.

Anahtar Kelimeler

Testis; Leiomyom; Radikal Orşiektomi

Abstract

Leiomyomas are benign tumors originating from smooth muscle cells. Though most commonly reported in the uterus, they may also originate from the renal pelvis, urinary bladder, spermatic cord, epididymis, prostate, scrotum, or glans penis. However, location in the tunica albuginea is extremely rare. Herein, we will report a diagnosed leiomyoma located in the tunica albuginea in a 72-year-old patient.

Keywords

Testes; Leiomyoma; Radical Orchiectomy

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Introduction

Leiomyomas are benign tumors originating from smooth muscle cells. They may arise from the renal pelvis, urinary bladder, spermatic cord, epididymis, prostate, glans penis, or the scrotum in the urinary system. However, leiomyomas located in the testis are extremely rare [1, 2]. To our knowledge, only a few cases have been reported in the literature [1-9]. We herein present a case of intra-testicular leiomyoma.

Case Report

A 72-year-old patient was admitted to our hospital with the complaint of a swelling on his right testis for 1 year. Ultrasonographic evaluation revealed a thick-walled anechoic cyst measuring 32x24 mm in the spermatic canal on superior parts of the right scrotal sac. In the left epididymis, there were also 2 dense cysts having high level echoes with the diameters of 4.5 mm and 6 mm. Para-testicular veins were measured as 2.6 mm at the neutral position and 3.5 mm with Valsalva at the largest points on the left. Ultrasonography (US) of the testes showed a hypoechoic lesion measuring 1 cm in diameter in the lateral parts of the right testis. Eventually, the ultrasound was reported as grade 3 varicocele on the left, a cyst on the right spermatic canal, and 2 epididymis cysts with high density on the left. The patient's serum tumor markers (AFP, β-HCG, LDH) were within normal limits. The patient received radical orchiectomy. In macroscopic evaluation, there was a well-defined solid lesion measuring 0.9x0.6 cm, having a gray-white colored cross-sectional surface, on a side of testis tissue which was 3.5x2 cm in size, just below the tunica albuginea. There was also a cystic structure together with the structures belonging to the epididymis cysts on the right spermatic canal. Microscopic evaluation of the testicular mass revealed a benign tumor characterized by spindle-like cellular proliferations forming crossing bundles. There was not any increased cellularity, tumor necrosis, increased mitotic activity, or pleomorphism determined in the tumor (Figure 1). There were findings of atrophy on the surrounding testis tissue (Figure 2). In immunohistochemical evaluations, the tumor was positively stained with smooth muscle actin (SMA) and desmin (Figure 3). Ki-67 proliferation index of the tumor was low (1-2%). Based on these findings, the case was diagnosed as intra-testicular leiomyoma.

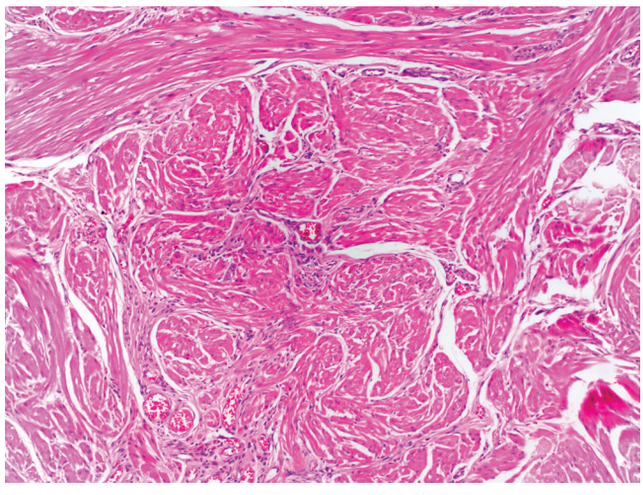

Figure 1. Microscopic examination showed interlacing uniform spindle cells with blunt-ended elongated nuclei (H&E×100).

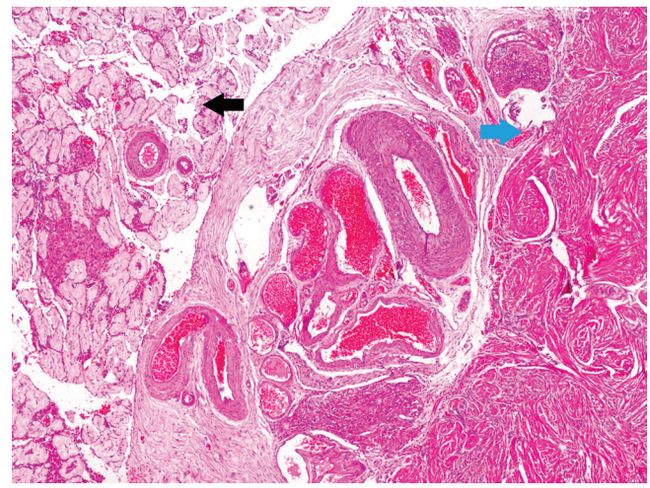

Figure 2. Tumor consists of benign spindle cells (blue arrow) that are near the atrofic testicular tissue (black arrow) (HEx40)

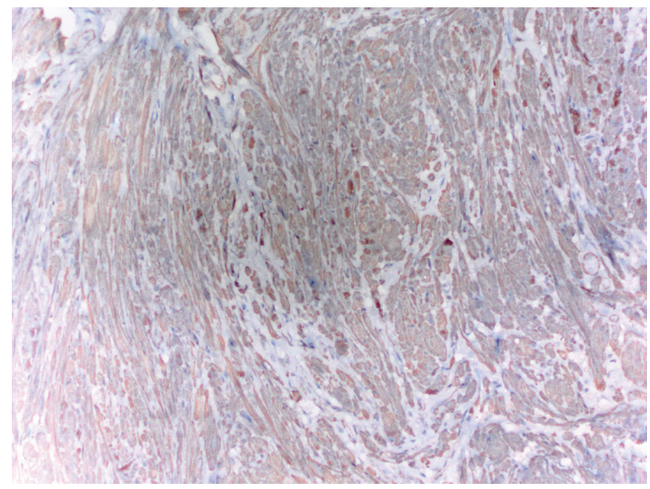

Figure 3. In immunohistochemical staining, the tumor cells were positive with SMA (x200)

Discussion

Most of the solid masses located on the testis are malignant tumors such as germ cell tumors, non-germ cell tumors, lymphoma, and metastatic tumors. Rare benign solid lesions located on the testis include epidermoid cyst, Leyding cell hyperplasia, gonadal stroma originated fibroma, hemangioma, leiomyoma, spontaneous hemorrhages, sarcoidosis and tuberculosis [1]. Leiomyomas located in the testis are extremely rare. Though those tumors may be found in all age groups, they are most commonly reported in the 6th decade of life. Generally, there is a history of painless, slowly growing scrotal swelling for a long time [2-5].

Leiomyomas may arise from any type of smooth muscle cells. The etiology of leiomyomas on the tunica albuginea is controversial. They may originate from the smooth muscle cells of vessels as well as totipotent teratomas [6]. According to another opinion, they originate from the tunica propria of seminiferous tubules or smooth muscle cells of the tunica albuginea [1]. On macroscopic evaluation, they are well-defined, having a whorled cut surface [1-3]. The exact diagnosis is made after histopathological investigations. The differential diagnosis includes inflammatory myofibroblastic tumor (IMT). This tumor is negatively stained with desmin while leiomyomas are positive. In preoperative diagnosis of the tumor, ultrasound may be helpful. In ultrasonographic evaluation leiomyomas are defined as

well-defined, hypoechoic solid lesions; the differential diagnosis includes inflammatory hydrocele, multi-loculated hematocele, and Sertoli cell tumor [2,7-9].

The main treatment method of those tumors is local excision. Radical orchiectomy is unnecessary in general, and should be performed only if the tumor has adhesions to the surrounding testis tissue or if it has a malign appearance. In those conditions, the nature of the surgery should be determined by the aid of the frozen section. However, if frozen section is not available, then since the exact diagnosis usually cannot be made preoperatively, radical orchiectomy becomes the main treatment method. In our case, since frozen section could not be performed, radical orchiectomy was chosen for the treatment.

In conclusion, though intra-testicular leiomyomas are rare, they should be kept in mind in the differential diagnosis of testicular solid masses. However, since most of the testicular solid masses are malignant and preoperative differentiation of benign and malign masses is difficult, most of these patients are treated with radical orchiectomy. For that reason, in patients with the suspicion of benign tumors, it should be kept in mind that with intraoperative consultation (frozen section) these lesions may be treated with only excisional biopsy, thus avoiding unnecessary radical surgeries.

Conflict of Interest

No conflict of interest was declared by the authors.

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