

Leiomyoma of Tunica Albuginea: A Case Report.

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Abstract: Leiomyomas are benign tumors arising from any site containing smooth muscle. They are infrequently found in the genitourinary tract, most common site here being renal capsule. Rarely they may be found in the epididymis, spermatic cord and tunica. Leiomyoma of tunica albuginea is extremely rare. Here we report a case of leiomyoma of tunica albuginea in a 50 year old man.

Keywords: Leiomyoma, Tunica albuginea, Tumor, Histopathology.

INTRODUCTION

Leiomyomas are benign soft tissue tumors that arise from almost any site containing smooth muscle. They are derived embryologically from mesenchymal cells [1]. The most common site of leiomyoma is the uterus [2]. The majority of male genitourinary leiomyomas are found in the renal capsule but this tumor has been reported in the epididymis, spermatic cord and tunica albuginea [3]. Leiomyoma of tunica albuginea is extremely rare, and to our knowledge only a few cases have been reported in world literature [1, 3-7]. In case of bilateral leiomyoma only two have been reported [9, 10]. Here we present a case of a leiomyoma of tunica albuginea in a 50 years old man.

CASE REPORT

A 50 years old male presented with a painless and slow growing scrotal mass first noticed in the past few months. The patient had no significant medical or family history. Physical examination revealed a firm, non transilluminating mass of about 7cms in diameter in the left testis. The mass was distinct from testis. Scrotal skin was normal. No lymph node was palpable upon physical examination. Ultrasonographic examination failed to pick up the lesion. USG revealed an encysted hydrocele of left testis with varicocele. Patient was operated for hydrocele, but intraoperative findings were that of a large mass attached to lower pole of testis. Since the mass was adherent to testis, orchidectomy was carried out. Laboratory results for BHCG, alpha fetoprotein and LDH were normal. Macroscopic examination of the specimen revealed a well circumscribed mass of 8x 7x6 cms attached to lower pole of testis. C/S through mass was grey/white firm with whorled appearance. The mass seemed to arise from tunica albuginea. Adjacent testis was grossly unremarkable (Fig. 1). Microscopically, the tumor was

composed of interlacing bundles of smooth muscle cells arranged in a fascicular pattern. The tumor cells were separated by well vascularised connective tissue. Areas of hyalinisation were seen. There was no mitosis, hemorrhage or necrosis (Fig. 2 and Fig. 3). Diagnosis of leiomyoma was made.

IHC was positive for SMA (4 positive) and negative for S 100 thus confirming our diagnosis (Fig. 4).



Fig. 1: Well circumscribed mass attached to lower pole of testis (gross)

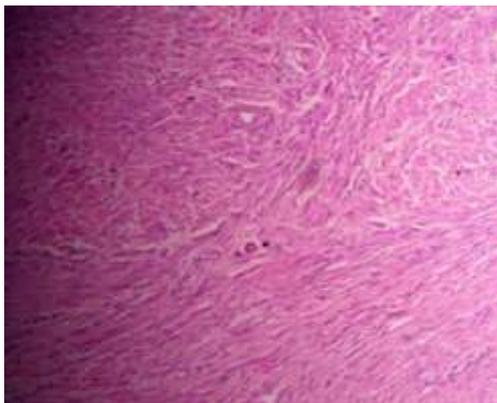


Fig. 2: Leiomyoma with interlacing bundles of smooth muscle cells (low power view)

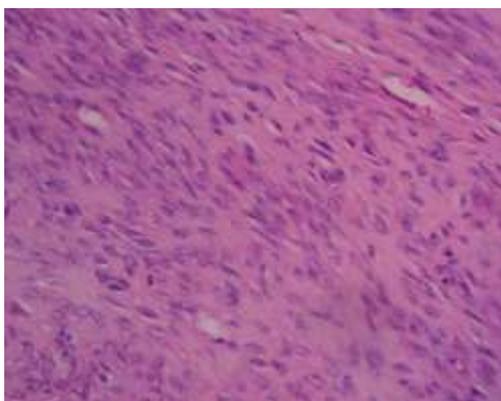


Fig. 3: Leiomyoma with cells showing blunt ended somewhat vesicular nuclei (high power view)

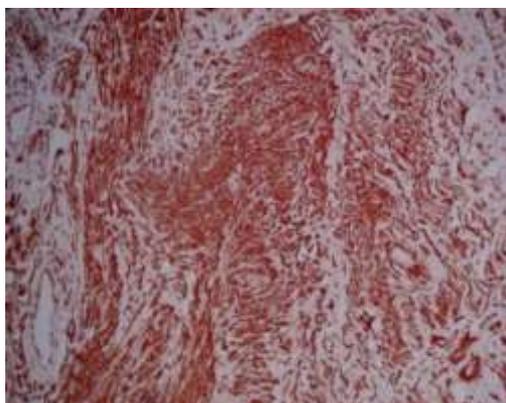


Fig. 4: SMA positivity (4+ in leiomyoma)

DISCUSSION

Albert and Mininberg reported the first case of testis associated leiomyoma in 1972 [4]. The literature was reviewed and a few cases reported previously were found.

Leiomyomas are benign tumors that may arise from any structure containing smooth muscle cells. The majority of genitourinary leiomyomas have been found in the renal capsule but they have also been reported in the epididymis spermatic cord and tunica albuginea [3]. The most common age of presentation of leiomyoma is

the 5th decade of life [9]. Leiomyoma of tunica albuginea is considered to be of benign behaviour with no invasive growth or metastasis [8]. The origin of leiomyoma of tunica is quite controversial. It could arise from the smooth muscle of blood vessels or from totipotent teratoma [3, 4]. The lesion may be missed on ultrasonography, differential diagnosis here include inflammatory hydrocele, multiloculated hematocele and a sertoli cell tumor [10, 11]. In our case also the lesion was missed by ultrasonography due to the presence of a large hydrocele. It was during surgical exploration that a large mass arising from tunica albuginea and was adherent to testis was found. Immunohistochemically leiomyoma of tunica is positive for smooth muscle actin (SMA), as was there in our case.

Paratesticular masses must be properly evaluated and investigated to rule out the possibility of malignancy. Since majority of these lesions are benign, testis sparing surgery can be done. Since in our case the mass was quite big and adherent to testis, orchidectomy was therefore done.

CONCLUSION

Leiomyoma of tunica albuginea is an extremely rare condition. To best of our knowledge only six cases have been reported in world literature. Although rare, it should be kept in the possible differential diagnosis of lesions in this area.

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