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INTRATESTICULAR LEIOMYOMA: A CASE REPORT

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A case of leiomyoma of the testis is reported. The origin of the intratesticular leiomyoma is controversial, but recently it is thought to arise from the contractile cells in the tunica propria of the seminiferous tubules.

This is the first case reported in Japan and the fifth in the world literature.

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Key words: Leiomyoma, Testis

INTRODUCTION

Leiomyoma may arise anywhere in the body from tissues containing smooth muscle. It is relatively uncommon in the genitourinary tract, and rarely arises from the testis.

CASE REPORT

A 36-year-old man was admitted to our hospital because of a firm non-tender nodule in the right testis for more than a year. His past history was unremarkable except for the suspicion of male infertility and cholecystectomy 2 years earlier. Physical examination revealed a hen's egg sized, firm, well-demarcated, non-tender nodule in the lower portion of the right testis which failed to transmit light. Ultrasonography revealed a hypoechoic mass within the tunica albuginea of the right testis. Tumor markers such as α -fetoprotein and β -subunits of human chorionic gonadotropin were within normal levels.

Right orchiectomy after high ligation of the spermatic cord was performed under the diagnosis of malignant testicular tumor on March 24, 1989 and post-operative course was uneventful. The intratesticular tumor, measuring 4.6 \times 3.5 cm, was firm, grayish-white and myomatous in appearance displacing normal testicular tissue to the upper part within the tunica albuginea of the right testis (Fig. 1).

Microscopically on haematoxylin and eosin stain and on electronmicroscopy, the tumor consisted of interlacing bundles of smooth muscle cells with no mitotic figures nor atypical nuclei (Fig. 2, 3). Therefore the tumor was diagnosed as leiomyoma. A few types of immunohistochemical stains were performed, but we failed to obtain any specific findings probably because of poor initial fixation of the specimen.

The testicular tissue was normal. The tumor was partly covered by the tunica albuginea with which no connection nor infiltration were found. These findings suggested that the tumor arose from the testicular tissue.

DISCUSSION

Intrascrotal leiomyomas may arise from the epididymis, the spermatic cord or the dartos muscle of the scrotum, but that arising from the testis itself is rare.

The origin of the intratesticular leiomyoma is controversial. It is thought to be caused by the proliferation of muscle bundles from the smooth muscle in the vascular tree. In reported cases, the tumors originating from the tunica albuginea tend to have a stalk or to protrude outwards¹⁻³⁾. Such tumors are thought to arise from the vascular structures in the tunica albuginea.

Recently it is postulated that the lesion arises from the contractile cells present in

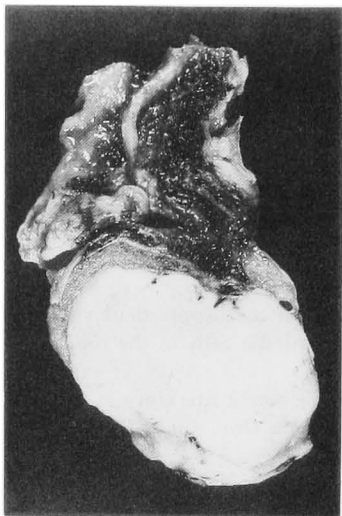


Fig. 1. Macroscopic appearance of longitudinally opened testicle, note the tumor displacing testicular tissue to the upper part

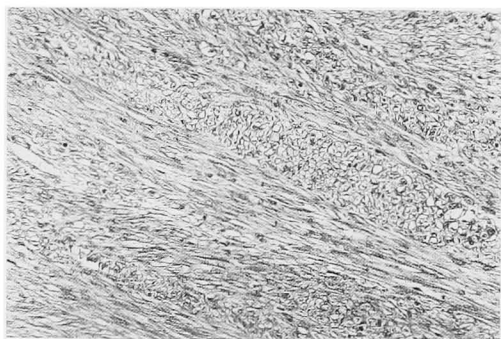


Fig. 2. Typical smooth muscle bundles with interlacing pattern

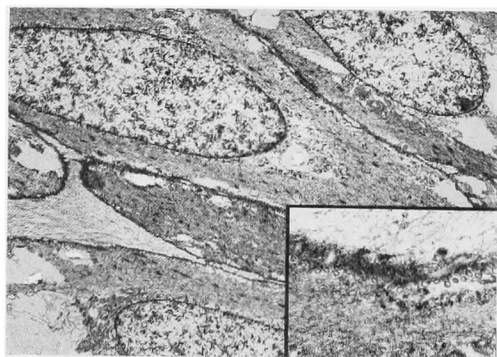


Fig. 3. Electron microscopic appearance of tumor, note the characteristic myofibrils, dense bodies, pinocytotic vesicles and basement membranes, $\times 3,000$ (right lower corner, apparent pinocytotic vesicles, $\times 8,000$)

the tunica propria of the seminiferous tubules⁴⁾ Our case is the fifth reported case of leiomyoma in the world literature¹⁻⁴⁾ and the first in Japan. Of the five reported cases, the tumor proliferated from the tunica albuginea in 3 cases and from the testicular tissue in 2 cases. Our case is thought to proliferate from the testicular tissue.

The differential diagnosis includes malignant testicular tumors, fibroma, Leydig cell tumor, and Sertoli cell tumor. Despite its benign nature, orchiectomy after high ligation of the spermatic cord remains the treatment of choice, simply because this lesion cannot be distinguished clinically from more common testicular malignancies or leiomyosarcomas⁵⁾ No other adjuvant therapy is needed for leiomyoma.

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和文抄録

精巣平滑筋腫の1例

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陰嚢内無痛性腫瘤を主訴とした36歳男性の右精巣腫瘍症例について報告した。術前腫瘍マーカーはすべて正常であったが、悪性を否定できないため高位除睾術を行った。病理組織学的診断は精巣平滑筋腫であった。本症の発生原基については精巣組織内血管壁の平

滑筋線維から発生したものと考えられているが最近、精細管固有層内にある括約筋細胞から発生するという説も出ている。本症例は世界5例目で、本邦では1例目と考えられる。

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