

## Pedunculated Leiomyoma of Scrotum

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*Leiomyoma may originate at any anatomic location of smooth muscle in the genitourinary system. The kidney capsule is the most common site for the genitourinary leiomyomas. Leiomyoma origination from the scrotum is rare. The previous reported cases presented as small, firm, nontender, slowly enlarging freely movable masses within the scrotum. We report a case of leiomyoma of the tunica dartos, a benign lesion arising from the wall of the left scrotum. It presented as a pedunculated lesion with a surface ulceration, which need to be differentiated from squamous carcinoma of the scrotum. It was treated with a simple surgical excision.*

**Key Words :** Leiomyoma, Scrotum.

### INTRODUCTION

Leiomyoma is a benign tumor derived from smooth muscle. There are three specific types of superficial leiomyoma: (1) single or multiple lesions of leiomyoma derived from the arrector pili muscle (piloleioma), (2) leiomyoma derived from the muscularis of the blood vessel (vascular leiomyoma), and (3) leiomyoma derived from the smooth muscle of the nipple or scrotum (Livne et al., 1983). True leiomyoma of the scrotum is exceedingly rare. Less than 30 cases have been reported in English. In 1937, Stout reviewed world case reports and found only 5 cases (Stout, 1937), and in 1976 Siegal reported 10 cases of solitary (nodular) leiomyoma arising from the scrotal tunica dartos (Siegal et al., 1976). We report a case of pedunculated leiomyoma arising from the tunica dartos, which was unique to us and may be interesting to the others.

### CASE REPORT

A 60-year-old Korean man was admitted

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to Kyung Hee University Medical Center with the chief complaint of a pedunculated mass on the left scrotum of 20 years duration.

Physical examination disclosed a firm, nontender, large pedunculated growth arising from the base of the left scrotum. The mass was clearly separated from the testis, the epididymis, and the spermatic cord. The growth was fungating and measured approximately 4 x 2 x 3 cm and had a superficial ulceration on its anterior surface. The surface was covered with normal scrotal skin, except for the ulceration, and the stalk measured about 1.5 cm (Fig. 1). Both testes were normal and there were no palpable inguinal lymph nodes. The tumor was diagnosed as leiomyoma through biopsy. Therefore, the tumor was resected from the base of the left scrotum. On cross section, the center of the mass was seen to be comprised of moderately firm, whorled interlacing bundles of gray-white diffuse homogeneous matter (Fig. 2). Microscopically, the tumor tissue was well delineated from the surface skin. The tumor was composed of whorling bundles of smooth muscle. The individual muscle cells were uniform in size and shape. They were characterized by oval nuclei and long slender bipolar cytoplasmic processes. Below the surface epithelium, there

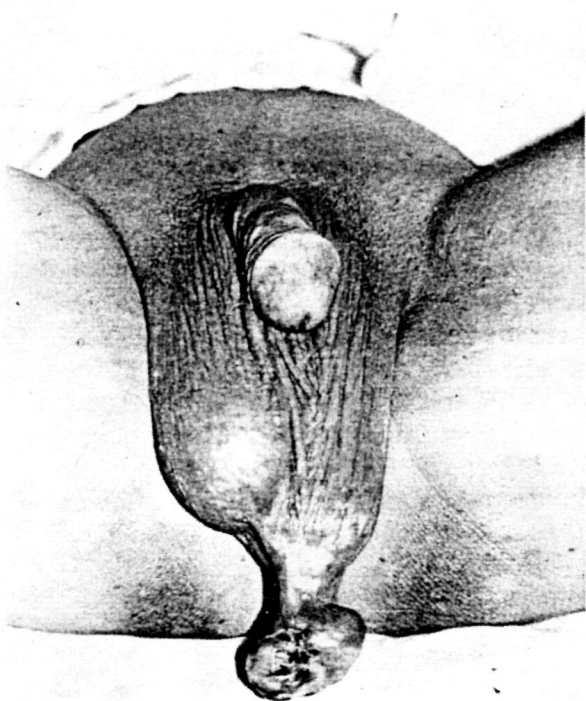


Fig. 1. Pedunculated left scrotal mass. The stalk measures 1.5 cm.

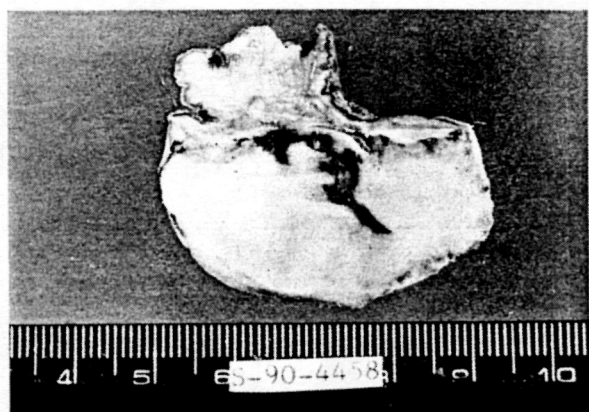


Fig. 2. Cut surface of the tumor reveals a gray-white diffuse homogeneous appearance.

was remaining smooth muscle bundle namely dartos muscle. Mitotic figures, giant cells and anaplasia were absent ( Fig. 3 ).

Ten months after the surgical excision, this patient is without evidence of recurrent disease.

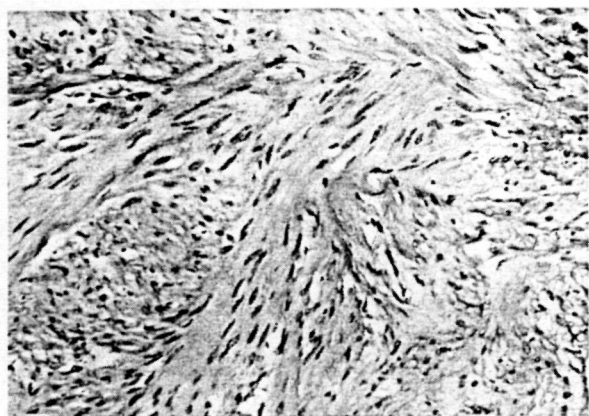


Fig. 3. Photomicrograph of the tumor showing interlacing arrangement of spindle-shaped leiomyomatous cells(H-E, x200).

## DISCUSSION

Leiomyoma, a benign tumor of smooth muscle origin, may arise almost anywhere in the body. Leiomyoma has two common entities : (1) superficial, composed of interlacing bundles of smooth muscle cells, probably derived from the arrectores pilorum muscles in the skin and (2) vascular, arising from the smooth muscle of the blood vessels. Cutaneous and subcutaneous leiomyoma is a small tumor varying usually from the size of a pea to that of a walnut and only occasionally growing larger, the maximum being the size of a child's head. The tumor occurs with equal frequency in both sexes and may appear at any age although more than half are seen to develop after the twenty-ninth year.

Leiomyoma of the genitourinary tract may originate from any structure or organ containing smooth muscle. These benign tumors have been described in the kidney, ureter, bladder, urethra, prostate, seminal vesicle, spermatic cord, testis, epididymis, penis, and scrotum. The kidney capsule is the most common location for genitourinary leiomyomas. These are usually small and found at autopsy ( Belis et al. , 1979 ).

Dartoid leiomyoma is a rare, and most of the reported cases are male in the fourth to the sixth of life although one case was found at age of 13 months.

Clinically, most reported cases have presented as a small, firm, nontender, slowly enlarging freely movable masses within the scrotum and usually presented with no specific symptoms. The pedunculated with ulcerative lesion is exceedingly rare. In 1977, lleoreta reported a case of pedunculated scrotal leiomyoma which had a superficial ulceration on its anterior surface (lleoreta *et al.*, 1977). Leiomyoma of the tunica dartos should be included in the differential diagnosis of scrotal masses (Tomera *et al.*, 1981).

In cases of ulcerative lesions, the scrotal squamous carcinoma should be differentiated by biopsy.

Simple surgical excision is curative and is the treatment of choice. Irradiation is contraindicated because radiation therapy may induce a malignant transformation in the scrotum. Recurrence is a potentially ominous sign and, a thorough investigation should be undertaken to be rule out the possibility of malignancy(Siegal *et al.*, 1976)

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