

URETHRAL LEIOMYOMA MIMICKING A CARUNCLE

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Leiomyomas are benign neoplasms arising from smooth muscle cells of the urethra, seen more frequently in women in third or fourth decades of life [1]. Less than 40 urethral leiomyoma have been reported in the literature. Because of their rarity, they are often clinically misdiagnosed as common urinary tract lesions, especially urethral caruncles. Tumor size varies from 1 to 8 cm [2]. Patients can present with irritative to obstructive symptoms [3] such as masses, urinary infections, detrusor instability, hematuria and dyspareunia.

A 40-year-old woman presented to the surgical outpatient clinic with increased frequency of micturition and dysuria. On examination, a mass measuring $2.2 \times 1.5 \times 1.0$ cm was found on the urethral meatus. Following a clinical diagnosis of urethral caruncle, excision was performed. A single grey-brown globular mass of soft tissue ($2 \times 1 \times 1$ cm) with gray-white areas of whorling was seen. No areas of hemorrhage or necrosis were identified. Microscopic examination revealed fascicles of spindled benign smooth muscle cells with abundant pale eosinophilic cytoplasm (Figure). These cells were positive for smooth muscle actin (Figure), confirming a leiomyoma.

The differential diagnosis of urethral leiomyoma includes benign conditions like Skene's gland cysts, mucosal prolapse, ectopic ureterocele, urethral diverticulum, vaginal cyst, Gartner's duct cyst, caruncles and hamartoma [4]. Rarely, malignancies like adenocarcinoma, squamous cell-, and transitional cell carcinoma, histiocytoma, and sarcoma can mimic leiomyomas [5,6]. Leiomyomas should therefore be distinguished from other benign and malignant tumors by removal and histopathology [7]. Treatment with complete excision has no risk of metastases, although local recurrences may occur [8].

Caruncles are the most common benign tumors of urethra, their size are usually less than 1 cm and present

as raspberry-like mass in the posterior lip of the meatus in post-menopausal women. They are not truly neoplastic but reactive polypoidal lesions with a tendency to bleed and become infected. Since caruncles may also present as a mass, bleeding, discharge, or hematuria [6], they should be distinguished from urethral leiomyomas.

Although rare, leiomyomas should be considered in the differential diagnosis of the meatal lesions of female urethra. In most cases, different age groups of involvement (postmenopausal in caruncles vs. reproductive age groups in leiomyomas) and difference in size (< 1 cm in caruncle vs. > 1 cm in leiomyomas) help to clinically distinguish leiomyoma from the more common urethral caruncles. However, microscopic examination of the resected specimen should always follow surgical removal for accurate diagnosis.

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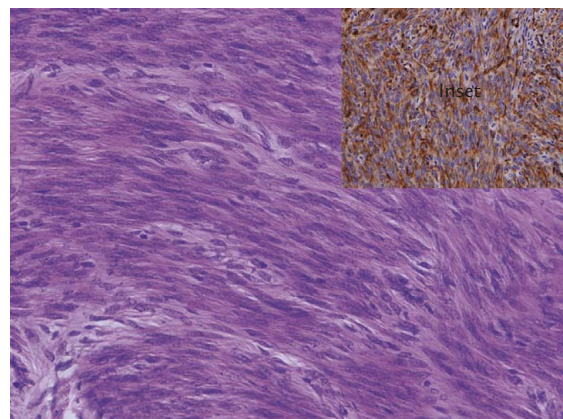


Figure. Section showing benign spindled cells in fascicles with pale eosinophilic cytoplasm (hematoxylin and eosin stain, 400 \times). Smooth muscle actin positivity in the spindled cells (Inset).



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