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## Leiomyoma of the female urethra

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Laornuan S, Panyaworawut W, Sethawong W. Leiomyoma of the female urethra. Chula Med J  
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*We report a very rare case of a benign tumor "LEIOMYOMA" of the female urethra.  
Less than 30 cases have been reported previously in the world medical literature.*

**Key words:** *Leiomyoma, Urethra, Female.*

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สัมฤทธิ์ ลอนวล, วรณัฐ ปัญญาวรฤทธิ, วสันต์ เศรษฐวงค์. เนื้องอกไลโอมีโยมาของหลอด  
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รายงานเนื้องอกชนิด "ไลโอมีโยมา" ของหลอดปัสสาวะในผู้ป่วยหญิงหนึ่งราย ซึ่งเป็นเนื้องอกที่ไม่ร้ายแรงและมีอุบัติการณ์น้อยมาก จากการค้นสำรวจเวชสารทางการแพทย์พบว่าได้เคยมีรายงานของเนื้องอกชนิดนี้ในผู้ป่วยหญิงไว้ไม่เกิน 30 ราย

Benign neoplasm of the female urethra may arise from any of its histological elements, that is, transitional epithelium, stratified squamous epithelium, glandular epithelium, vascular component, fibrous tissue, and smooth and striated muscle. Polyps, papillomas, hemangiomas, fibroma, leiomyoma, fibromyomas, neurinomas, neurofibromas, adenomas and cysts all have been reported with polyps and papillomas being the most common<sup>(1,2)</sup> and the true leiomyoma among the least common.<sup>(2)</sup> A review of the literature revealed only a small number (< 30) of previously reported cases of urethral leiomyoma in females.<sup>(2,21)</sup> Herein we report an additional case found in a young single Thai woman.

#### Case Report

A 27-year-old women, single, (PJ, Chulalongkorn Hospital No. 132585/42) was initially seen in a gynecological clinic because of vaginal spotted bleeding. The gynecologic examination was unremarkable except that a large paraurethral mass was noted and she was referred to the urologic clinic for further management. The patient had not experienced any previous urinary difficulties. On examination, a 2.7 x 2 x 1.5 - cm, non-tender, solid mass was presented, obscuring the urethral meatus. The pinkish semi-soft, sessile, well epithelialized mass was situated at the right anterolateral portion of the urethral meatus. The proximal urethra and bladder were normal on palpation and cystourethroscopic examination. Laboratory examination, including urinalysis and urine culture, was normal. With the patient under regional anesthesia, the mass was easily dissected and removed completely; the mucosal defect was easily approximated with absorbable sutures. Microscopic

examination (Pathological No. SP43-000503) revealed normal transitional and stratified squamous epithelium lining with chronic inflammatory cell infiltration in the subepithelium. The underlying tissue revealed a well circumscribed mass comprised of fascicles of spindle shaped cells with elongated and some rectangular nuclei without atypia or mitotic figure. The final diagnosis was leiomyoma of the urethra.

#### Discussion

The most common benign mass lesion associated with urethral meatus in females is caruncle.<sup>(1)</sup> It is not a true neoplasm but rather an inflammatory lesion that produces pain and bleeding and occurs almost exclusively in women of menopausal age. Its etiology and pathogenesis are unclear, but prolapse of the urethral mucosa and associated chronic inflammation have been suggested as a cause<sup>(22,23)</sup> as well as a result of estrogen deficiency.<sup>(24,25)</sup>

Leiomyomas are benign neoplasms which may arise throughout the urogenital system, having been reported in the bladder, epididymis, kidney, penis, prostate, scrotum, seminal vesicles and spermatic cord. The kidney capsule is probably the most common location.<sup>(26)</sup>

Leiomyomas of the female urethra are unusual lesions that may occur in any segment of the urethra but are most frequently reported to involve the proximal segment.<sup>(4,27)</sup> They probably arise from circular fibers of the muscular coat that extend throughout the length of the urethra and continue into the urinary bladder. They usually present as an asymptomatic, palpable mass but may be associated with hematuria, recurrent urinary tract infection and

rarely with urinary obstruction.<sup>(28)</sup> The tumor is usually discovered before reaching a diameter of 1 cm., although a urethral leiomyoma has been reported with a diameter as large as 30 cm.<sup>(6)</sup> The larger neoplasms present as masses protruding into the vaginal introitus attached to the urethra by a long thin stalk. Enlargement of uterine leiomyomas during pregnancy and estrogen therapy have been noted, and this association has also been described with urethral leiomyoma.<sup>(11,12)</sup>

Because female urethral masses are so often malignant,<sup>(1,29,30)</sup> masses or tumor-like masses in this area should be thoroughly investigated and evaluated. In case of a leiomyoma, the mass should be completely excised to avoid recurrence.<sup>(31)</sup>

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