



Periurethral Leiomyoma

Lior Lowenstein MD¹, Christopher McClung MD² and Elizabeth Mueller MD¹

¹Division of Female Pelvic Medicine and Reconstructive Surgery, and ²Department of Urology, Loyola Medical Center, Chicago, IL, USA

IMAJ 2007;9:54

A 37 year old, vaginally multiparous Caucasian woman presented to our department for evaluation of an asymptomatic urethral mass. On physical examination, her external genitalia were normal except for a posterior urethral, firm non-tender 1.5 cm rounded mass that could be palpated at the distal urethra. The tumor protruded slightly out of the urethral meatus, making urethral catheterization difficult. Magnetic resonance imaging with gadolinium contrast revealed a 1.8 cm enhancing rounded mass in the distal urethra, which appeared to be positioned anteriorly [Figure 1]. The mass demonstrated T1 hypo-intense and T2 hyper-intense signal and was suggestive of leiomyoma or polyp, although a malignant etiology could not be ruled out. Excision of the urethral mass was performed



Figure 1. Sagittal T2-weighted image demonstrating periurethral leiomyoma (white arrow). Urine flow through the urethra is marked with black arrow.

through the vagina. The tumor was carefully dissected off the urethral mucosa, and following the identification and ligation of the vascular pedicle the tumor was excised [Figure 2]. A 2 cm hard, firm white mass was sent to pathology and the diagnosis confirmed a urethral leiomyoma.

Urethral leiomyoma is a rare pathology. Leiomyomas associated with the urethra can be classified as either periurethral leiomyoma, which arises from the urethral smooth muscle layer, or para-urethral leiomyoma originating from the anterior vaginal smooth muscle or vesicovaginal septum [1]. Para-urethral leiomyomas are often asymptomatic and do not require excision. In contrast, periurethral leiomyomas often exert a “mass effect on the urethra,” resulting in the following symptoms: acute urinary retention, post-void dribbling, recurrent urinary tract infections, and stress incontinence [2]. A few case reports have demonstrated urethral leiomyoma growth during pregnancy [3].

Our patient presented with an asymptomatic urethral leiomyoma. MRI findings were consistent with our clinical suspicions. Her concerns about leiomyomal growth during future pregnancies influenced her desire for surgical removal in spite of concerns regarding potential surgical complications. Four weeks after

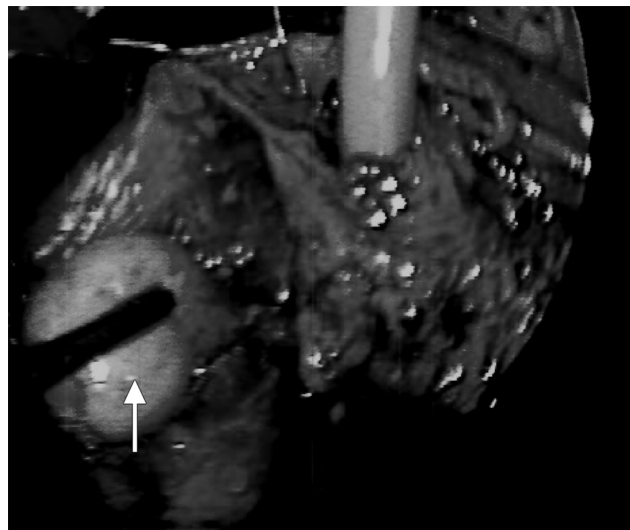


Figure 2. Periurethral leiomyoma and its vascular pedicle (white arrow).

excision the patient remains continent and is doing well.

References

1. Ozel B, Ballard C. Urethral and paraurethral leiomyomas in the female patient. *Int Urogynecol J Pelvic Floor Dysfunct* 2006;17: 93-5.
2. Schenone M, Giberti C. Paraurethral leiomyoma. *Arch Ital Urol Androl* 2003;75:161-3.
3. Fry M, Wheeler JS Jr, Mata JA, Culkin DJ, St Martin E, Venable DD. Leiomyoma of the female urethra. *J Urol* 1998;140:613-14.

Correspondence: Dr. L. Lowenstein, Division of Female Pelvic Medicine and Reconstructive Surgery, 2160 South First Avenue, Chicago, IL 60153, USA.
Phone: (1-708) 216-2170
Fax: (1-708) 216-2171
email: llowenstein@lumc.edu