

## **Female Urethral Leiomyoma: A Case Presentation**

**A.T. Tefera**

Urologic Surgeon St. Paul's General Specialized Hospital, Addis Ababa, Ethiopia

*Correspondence to:* Dr. Alemayehu T. Tefera, Email: [alett2006@yahoo.com](mailto:alett2006@yahoo.com)

**We present a case of female urethral Leiomyoma. The mass which protruding from the urethral meatus causing dysuria and urethrorragia. Our physical examination revealed the presence of the mass on the anterior wall of the vagina protruding from the urethral meatus. Histopathological examination showed leiomyoma of the female urethra. The patient was treated surgically and the symptoms disappeared completely.**

### **Introduction**

Leiomyomas are benign tumors of smooth muscle origin and rarely found in the urinary tract, with only 40 cases of urethral leiomyoma reported in the literature<sup>1,2,3,4,9</sup>. It is more common in women between 30 and 50 years old<sup>1,3,5</sup>. The first case was reported in 1984 by Buttner<sup>6</sup>. There is a controversy about its dependency on estrogen hormones. Its diagnosis is made only by histopathologic examination. The topographic site of the lesion is very useful for the prognosis. Grabstald and Cols<sup>7</sup> classified the tumors as distal or anterior when it's located at the distal 1/3 of the urethra, and proximal or posterior when it's located at anterior 1/3. We report a case of leiomyoma of the female urethra with its clinicopathological characteristics.

### **Case Report**

A 27 years old female patient with no history of past illness, came to our clinic presenting a mass protruding from the urethral meatus for 18 months, accompanied with dysuria and urethrorragia. On physical examination there was a polyploid and rounded mass with the size of 3.5 cm in diameter, smooth surfaced, firm with pink colour, located at the distal posterior urethra. On straining it protrudes through the urethral meatus (Figures 1). All investigations were normals.

FNA Biopsy done revealed Epidermid cyst of the urethra. She was operated, tomour excised and specimen sent for histopahologic examination (Figures 2).



**Figure 1.** Leiomyoma of Female Ureathra Before Surgery



**Figure 2.** Macroscopic View of the Tumour

The histopathologic examination showed a leiomyoma of the urethra. On follow after surgery the patient was found to be asymptomatic with out any abnormal finding on urologic examination.

### **Discussion**

Leiomyoma is a benign tumor of mesenchymal origin, composed of smooth muscle cells found rarely in the urinary tract. Our patient histopathologic result is also same. It is known to involve in decreasing order of frequency, the kidney bladder and urethra<sup>3,13,14</sup>. Leiomyomas are 3 times more common in women between 30 and 50 years<sup>1,3,5</sup>. According to the mentioned criteria, the case presented was atypical because it appeared in a 27 years old lady. The diameter of the tumors ranged from 1 – 40 cm<sup>2,3,14,15</sup>. The pathogenesis of leiomyoma is unknown but its growth is probably endocrine dependent, with the growth patterns and size influenced by estrogen<sup>2,3,8,15</sup>. But our case did not have hormone dependency because as we mentioned above that she is young with no such abnormality on investigations and there is no history of oestrogen based contraceptives usage. The clinical presentations depends on the location and size of the tumor. Patient can be asymptomatic being the leiomyoma an incidental finding during gynecological examination. Common presenting symptoms are periurethral masses, urinary tract infection, hematuria, urethrrragia, dysuria and dyspareunia and even acute urine retention and acute renal failure<sup>2,3,4,10,12</sup> patient also had two of the mentioned clinical presentation.

The clinical diagnosis is made by history, physical examination, uretherocystoscopic examination and imaging studies like transvaginal sonography, retrograde urethrography, voiding cystourethrogram and MRI<sup>2,3,4,10,12,13,14</sup>. The histopathologic study will give the definitive diagnosis. We also reached on definitive diagnosis by histopathologic examination. The differential diagnosis of female urethral leiomyoma should be done with urethral caruncle, papilloma, urethral diverticulum, ectopic ureterocele, fibrous polyp, Gratner's duct cyst, periurethral abscess, urethral carcinoma and other mesenchymal tumors<sup>3,14</sup>.

The urethral leiomyoma is treated surgically without recurrence<sup>1,3</sup>. Even we treated the patient surgically and she is asymptomatic with no recurrence. The operation techniques depends on the site of the tumor. So we removed the masas through incision of the anterior vaginal wall. The prognosis of this tumor is excellent as malignant transformation has not been reported<sup>1,2,3,8</sup>. Our patient is also doing good with no complication or recurrence after surgical therapy.

### **Conclusion**

1. Leiomyoma of the female urethra is a benign mesenchymal tumor and rarely found in the urinary tract.
2. The diagnosis is always confirmed by histopathological study.
3. The treatment is always surgical.

4. The prognosis is excellent since it has no risk of malignant transformation.

## References

1. Bozo Kruelein, Misng Lechpammer, Josip Katusie et. All calcitied Leiomyons of the female urethra: A case Report.
2. Cheng C, Mac-Moune Lai F, Chan PSF: Leiomyoma of the female urethra: a case report and review. *J Urol* 1992; 148: 1.526-1.527.
3. A: Rodriguez Alonso, D. Perez Garscia, A. Nunez Lopez, et. All Leiomioma de uretra femeniana. Presentacio de caso. *Actas Urol Esp.* 24(9): 753-756, 2000
4. Leung YL, Lee F, Tam PC: Leiomioma of the female urethra causing acute urinary retention and acute renal failure. *J Urol* 1997; 158: 1.911-1.912.
5. Nogueira March JL: Tumores de la uretra masculina y femenina. *Tratado de Urología*, J.F. Jiménez Cruz y L.A. Rioja Sanz. *J.R. Prouis Editores* 1993; 1.237-1.257.
6. Buttner Ein Fall von Myom der Weibliehen Urethra. *Z Geburshc Gynäk* 1894; 28: 135-136.
7. Grabstald H, Hilaris B, Henschke UR, Whitmore WF Jr: Cancer of the female urethra. *JAMA* 1966; 197: 835-841.
8. Caballero J, Carrero V, Vazquez S, Calahorra L: Tumores de uretra femenina: presentación de nuestros casos y revisión de la literatura. *Actas Urol Esp* 1993; 17 (1): 8-21.
9. A Strang, S. W. Lisson S. P. Petron. Urethral Endometriosis and Coexistent Urethral Leiomyoma in Post meno pausal woman.
10. Panigua P, Extramiana J, Mora M, Pamplona M: Leiomioma de uretra femenina. *Actas Urol Esp* 1990; 14 (1): 53-55.
11. Cornella JL, Larson TR, Lee RA, Magrina JF: Leiomyoma of the female urethra and bladder: report of twenty-three patients and review of the literature. *Am J Obstet Gynecol* 1997; 176 (6): 1.278-1.285.
12. Lee M, Lee S, Kuo H, Huang TW: Obstructive leiomyoma of the female urethra: report of a case. *J Urol* 1995; 153: 420-421.
13. Sheild DE and Weiss RM. Leiomyoma of the female urethra. *J Urol* 1973; 109: 430-431.
14. Jain R, Sawhney S, Bandhu S, Seth A. Leiomyoma of the female urethra. *Indian J Radiol Imaging* [serial online] 2000 [cited 2008 Dec 17];10:159-60.
15. Leidinger RJ, Das S. Leiomyoma of the female urethra. A report of two cases. *J Reprod Med* 1995; 40: