Female Urethral Leiomyoma Presenting with Acute Urinary Retention—A Rare Case with Unusual Presentation

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Abstracts Urethral leiomyoma is a rare benign tumor arising from smooth muscles of urethra. These tumors are more common in women than men, and few cases were reported in the literature. Presentation with acute urinary retention was rare. Proximal segment of urethra was commonly affected than the distal segment. We report here a case of urethral leiomyoma at the distal urethra presenting with acute urinary retention.

Keywords Urethral leiomyoma · Female urethral leiomyoma · Paraurethral mass · Benign urethral tumors

Introduction

Urethral leiomyoma is a rare benign mesenchymal tumor arising from the smooth muscles of urethra that affects women more than men with approximately 40 cases reported in literature [1, 2]. The size of tumor may vary from 1 to 40 cm [3]. They may present as asymptomatic mass or with dyspareunia and urinary obstruction [3]. Local surgical excision is the treatment of choice for the tumor [4].

Case History

A 25-year-old woman was presented with acute urinary retention with a mass per vagina to the emergency department. She had noticed the mass 2 years back, but because of social inhibition, she did not seek medical attention. On examination, she was found to have a fleshy, firm mass of 8×3 cm at the external urethral meatus with necrosis at the summit of the mass (Fig. 1). Anterior vaginal wall was free from tumor. A 12 Fr Foley catheter was passed per urethra and 800 ml of clear urine was drained. She was examined under anesthesia and cystourethroscopy was done. Urethroscopic findings showed submucosal mass in the ventral wall of the urethra from 10 to 2 o'clock position in the distal urethra. Cystoscopy was performed which was normal. A provisional diagnosis of urethral polyp was made, and the mass was excised for further evaluation. The defect in the urethra was closed by approximating the proximal edge of the urethra with the distal edge. Urethra was calibrated up to 28 Fr. Patient was catheterized for 5 days and voided well on catheter removal. Histopathological examination revealed yellowish white encapsulated tumor composed of spindle-shaped smooth muscle cells arranged in Whirling pattern (Fig. 2). These features confirmed the

Fig. 1 Preoperative image showing mass with necrosis

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Fig. 2 **a** Gross specimen. **b** Microscopy showing spindle-shaped smooth muscles arranged in whirling pattern

diagnosis of leiomyoma of urethra. Even though recurrence was rare after complete excision, the patient was advised for regular follow-up. She was on follow-up for the past 1 year. She was found to be asymptomatic and continent without any abnormal findings on examination.

Discussion

Leiomyomas can originate from any part of urinary tract including kidney which is the most common site [4]. However, urethral leiomyomas are very rare [3]. These tumors can occur at any age but are more common in the third and fourth decade of life [4]. This tumor commonly affects the proximal segment of urethra (80 %), but distal segment can also be involved as in present case [4]. The pathogenesis of urethral leiomyoma is estrogen dependency, but our patient is young with no such abnormality on investigations and there was no history of estrogen-based contraceptive usage. Common presenting symptoms include urinary tract infection (64.3 %), mass (50 %), and dyspareunia. But presenting with urinary obstruction is rare [2]. A careful clinical examination, urethroscopy, and radiological examinations were essential to distinguish it from other paraurethral masses [1]. A final confirmed diagnosis can only be made by histopathological examination [4]. The most appropriate treatment for this condition is local excision or transurethral resection [4]. No malignant transformation or recurrence was reported with complete excision [1].

This case was different as the patient presented with a huge necrotic mass with acute urinary retention which was unusual for urethral leiomyoma. The mass was located at the distal urethra which was also not a common site for this tumor.

In conclusion, urethral leiomyomas are clinically difficult to diagnose. Histopathology can only provide the definitive diagnosis. Complete excision was mandatory to prevent

recurrence. Strong clinical suspicion is required to diagnose these tumors.

Contribution Details

	Contributor 1	Contributor 2	Contributor 3
Concepts	√	√	√
Design	√	√	√
Definition of intellectual content	√		
Literature search	√		
Clinical studies			
Experimental studies			
Data acquisition	√	√	√
Data analysis			
Statistical analysis			
Manuscript preparation	√	√	√
Manuscript editing	√		
Manuscript review	√	√	√
Guarantor	√		

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