Case Report

Primary tuberculosis of urethra presenting as stricture urethra and watering can perineum: A rarity

Gaurav Prakash, Vishwajeet Singh, Rahul Janak Sinha, Suresh Babu[1], Ankur Jhanwar, C. N. Mehrotra[2]

Departments of Urology and [1]Pathology, King George's Medical University, [2]Department of Medicine, HIMS, Lucknow, Uttar Pradesh, India

Abstract

A young man presented with irritative lower urinary tract symptoms and multiple fistulae (watering can) in the perineum since 6 months. Micturating cystourethrogram and retrograde urethrogram was performed after 12 weeks following suprapubic cystostomy which showed bulbar urethral stricture with multiple urethrocutaneous fistulae. He underwent anastomotic urethroplasty and excision of the urethrocutaneous fistulae. Histopathology of the excised fistulous tract showed granulomatous pathology suggestive of tuberculosis. Antitubercular treatment was given for 9 months. The patient is voiding well at 12 months follow-up.

Key Words: Stricture, tuberculosis, watering can perineum

Address for correspondence:
Dr. Gaurav Prakash, Department of Urology, King George's Medical University, Lucknow - 226 003, Uttar Pradesh, India. E-mail: gaurav.kgmc08@gmail.com
Received: 10.02.2016, **Accepted:** 28.06.2016

INTRODUCTION

Primary tuberculosis of urethra is rare and often associated with other organs particularly prostate. We are presenting a case of a young man whose urethra was a primary organ of pathology.

CASE REPORT

A 45-year-old male presented with a history of irritative lower urinary tract symptoms and progressive thinning of the urinary stream for last 6 months. He had a history of small abscess on the left side of perineum which burst later on draining purulent discharge. He also had a history of passing urine from multiple fistulous openings in the perineum after bursting of the abscess. On local examination, multiple fistulae (watering can) were found in the perineum and genitalia appeared normal.

Access this article online	
Quick Response Code:	Website: www.urologyannals.com
	DOI: 10.4103/0974-7796.192093

Initially, suprapubic catheterization (SPC) was performed, and SPC was kept *in situ* for 12 weeks. Micturating cystourethrogram and retrograde urethrogram were performed at 12 weeks and showed bulbar urethral stricture with extravasation of contrast through multiple perineal fistula [Figure 1]. On urethroscopy, the stricture site was found near proximal bulbar urethra.

The patient was planned for anastomotic urethroplasty and excision of the fistulous tracts. During exploration, fistulous communications present between the perineum and the bulbar urethra were excised. Approximately, 3 cm of bulbar urethra with dense surrounding fibrous tissue had to be excised. Healthy bleeding urethral stump was dissected proximally and distally. Crural separation was performed to ensure tension

How to cite this article: Prakash G, Singh V, Sinha RJ, Babu S, Jhanwar A, Mehrotra CN. Primary tuberculosis of urethra presenting as stricture urethra and watering can perineum: A rarity. Urol Ann 2016;8:493-5.

free anastomosis. Anastomosis was performed in interrupted manner using 4–0 polyglactin suture over 14 French (F) urethral catheter. 16 F suprapubic catheter was inserted toward the end of surgery.

Postoperative period remained uneventful. Histopathological examination of the excised tissue was suggestive of granulomatous tubercular pathology [Figures 2 and 3]. Antitubercular therapy was given for 9 months. Now the patient is doing well at 1 year of follow-up with no evidence of recurrence of urethral stricture.

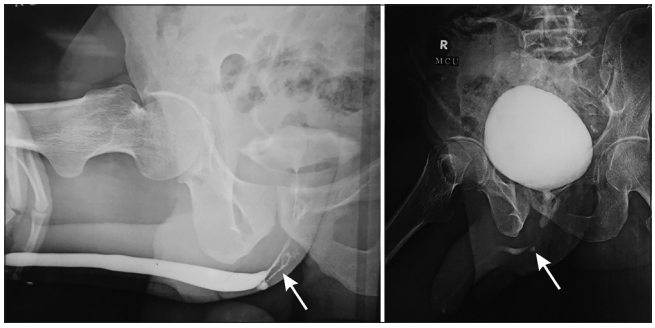

Figure 1: Retrograde urethrogram and micturating cystourethrogram showing bulbar urethral stricture with urethrocutaneous fistula (white arrow)

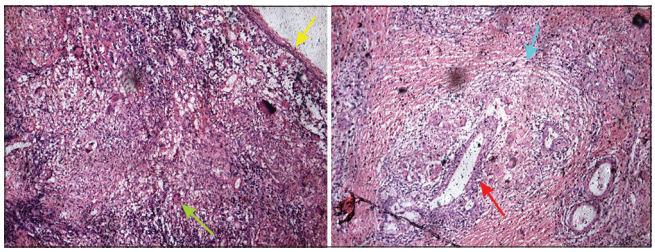

Figure 2: Histopathology of the excised tissue (H and E, ×5) stratified squamous epithelium (yellow arrow) in excised urethra; evolving giant cell (green arrow) and granuloma (blue arrow) suggest tuberculosis, transitional epithelium (red arrow) is seen

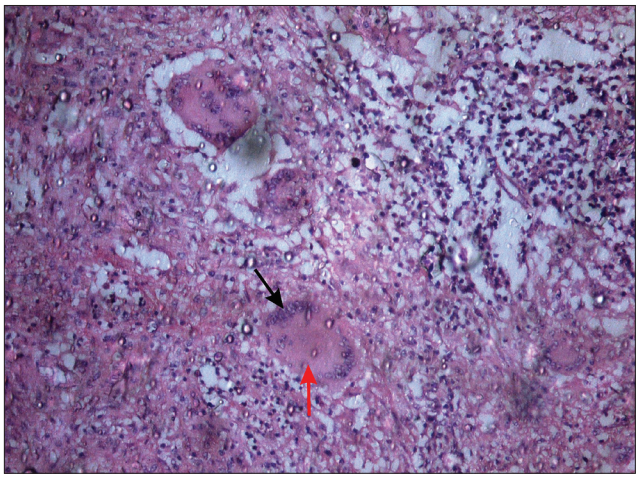

Figure 3: Histopathology of excised tissue (H and E, ×10) horseshoe shaped giant cell (black arrow) and caseation (red arrow) with surrounding chronic inflammatory cell, strongly suggestive of tuberculosis

DISCUSSION

Urethral tuberculosis is often associated with tuberculosis of prostate[1-3] and primary disease is a rare presentation. Even though urethra is in contact with urine but even in the event of upper urinary tract tuberculosis, the involvement of urethra is rare. Symes and Blandy reported five cases of urethral tuberculosis in 112 urethral strictures in male.[3] Ross could only found nine cases of urethral tuberculosis out of 469 suffering from genitourinary tuberculosis.[4] Indudhara *et al.* reported two cases of urethral tuberculosis; interestingly, one of which was a female patient with urethral caruncle in whom the excised tissue revealed tuberculosis.[2,5]

For establishing the diagnosis, radiological imaging is used to confirm the stricture as well as the urethrocutaneous fistula. Urine examination usually suggests sterile pyuria. There are various presentations of urethral tuberculosis. Usually, acute presentation is in the form of acute prostatitis with severe lower urinary tract symptoms, dysuria, and hematospermia while chronic presentations are in the form of multiple discharging sinuses/fistulae and urethral stricture disease.[6]

Treatment should be started once the diagnosis is established with at least 6–12 months of anti-tubercular therapy. Once the disease is stable, definitive surgical procedure may be attempted. In cases of uncertain diagnosis surgical management of urethral stricture is carried out. Once tissue diagnosis is established then, anti-tubercular therapy may be started. Anti-tubercular therapy is an essential part of the management and helps by deactivating tubercle bacilli and drying the wound. Urethroplasty in such cases is difficult due to the presence of dense scar and fibrous tissue.

CONCLUSION

Primary urethral tuberculosis presenting as watering can perineum is rare. Associated stricture of urethra should be managed by performing urethroplasty, and anti-tubercular treatment should be initiated in the postoperative period as per standard protocol.

Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflicts of interest.

REFERENCES

1. Gupta NP, Kumar R, Mundada OP, Aron M, Hemal AK, Dogra PN, *et al.* Reconstructive surgery for the management of genitourinary tuberculosis: A single center experience. J Urol 2006;175:2150-4.

2. Gupta N, Mandal AK, Singh SK. Tuberculosis of the prostate and urethra: A review. Indian J Urol 2008;24:388-91.
3. Symes JM, Blandy JP. Tuberculosis of the male urethra. Br J Urol 1973;45:432-6.
4. Ross JC. Renal tuberculosis. Br J Urol 1953;25:277-315.
5. Indudhara R, Vaidyanathan S, Radotra BD. Urethral tuberculosis. Urol Int 1992;48:436-8.
6. McAleer SJ, Johnson CW, Johnson WD. Tuberculosis and parasitic and fungal infections of the genitourinary system. In: Campbell Walsh Urology Wein AJ, Kavoussi LR, Novick AC, Partin AW, Peters CA. Campbell's urology, 9th ed. Philadelphia: WB Saunders; 2007. p. 436-70.