Large anterior urethral calculus presented as scrotal mass with urethrocutaneous fistula

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DESCRIPTION

A 38-year-old man with a background history of thin stream void and dysuria for the last 2 years, presented with an acute urinary retention of 2 days. Physical examination revealed a tender and hard mass in the scrotum and a fistulous track near the penoscrotal junction from which urine was oozing out (figure 1). An X-ray of the pelvis was suggestive of radio-opaque shadow in the scrotum (figure 2A). Ultrasonography (USG) showed 6×5 cm calcified lesion in the scrotum between both testes (figure 2B,C). Retrograde urethrogram (RGU) revealed a large filing defect at penobulbar junction suggestive of stone in large diverticulum and stricture of penile urethra distal to it (figure 3). Urethroscopy was not possible due to narrow lumen of the anterior urethra. Initially he was managed by suprapubic cystostomy and intravenous antibiotics. Later on he underwent open urethrotomy and stone retrieval with diverticulectomy and dorsal onlay buccal mucosal graft urethroplasty of distal penile urethra.

Large calculus are usually found in prostatic urethra, in anterior urethra this is a rare condition. Primary urethral stones are usually associated with distal obstruction or diverticulum. Patients with primary urethral stones are usually asymptomatic or have chronic voiding problems, while with migrant stones have acute presentation. This patient had long-standing voiding symptoms due to stricture of the anterior urethra and developed diverticulum and stone secondary to distal obstruction. Importantly, the patient presented with a hard scrotal mass and acute urinary retention; both plain X-Ray and USG were unable to diagnose urethral calculus and urethroscopy was not possible because of stricture, so the diagnosis was made only after RGU.
Learning points

- Large calculus in anterior urethra is a rare condition.
- Primary urethral stones.
  - Typically associated with distal obstruction or diverticulum.
  - Acute presentation is rare.
  - Usually asymptomatic or chronic symptomatic.
- In condition of large anterior urethral calculus and associated distal urethral stricture.
  - Retrograde urethrography is diagnostic.
  - Simultaneous stone removal and urethroplasty is desirable.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

REFERENCES