

Impacted Vesical Calculus: An unusual cause of failed urethral dilatation

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Introduction

Dilatation of a urethral stricture is an ancient surgical technique. Gonococcal urethritis is the oldest cause of strictures in the urethra. Easy passage of a 22/24 F bougie without provoking bleeding, pain and difficulty may be considered qualities of successful dilatation¹. The relegation of this technique to an inexperienced member of the unit may cause frequent return for dilatation, urethritis and failed dilatation from restricting. We report on unusual cause of failed dilatation of a urethral stricture.

Case report

A 31-year-old man had been attending our bouginage clinic for five years. He first presented five years earlier following a road traffic accident during which he sustained pelvic fracture and urethral injury. Urine was diverted by a surrapubic cystostomy at that time. An anastomotic urethroplasty was performed one year later for a short membranous urethral stricture. Subsequently urine stream was fair with only mild straining at micturition. The stream improved with urethral dilatation at follow up. He however, defaulted for seven months, and bouginage became difficult on resumption. At the last clinic attendance, the patient complained of worsening of strangury, frequency, poor stream, but no haematuria. Urethral dilatation was difficult with the bougie arrested at the bladder neck. A gritty feeling was appreciated on the bougie, and the latter could not pass into the bladder. An impression of bladder stone was made. A plain abdomino-pelvic radiograph (KUB) (Figure 1) was done and showed a large

vesical calculus. At cystolithotomy, a large stone (Figure 2) was found in a contracted bladder. The stone was cylindrical in shape and spiculed, and was impacted at the ladder neck, adherent to the trigone with a convex base occluding the internal meatus. The internal meatus was not stenosed and admitted the tip of the index finger easily. After removing the stone dilatation was done with ease, up to size 28/32F. The stone weighed 95gm. The patient did well and was discharged to the bougie clinic, on the 16th postoperative day, voiding well with a good stream.

Urine culture yielded a mixed growth of *Escherichia coli* and *Proteus species*, both sensitive to gentamicin and ampicillin, for which he was treated. Serum electrolytes and urea, phosphate and calcium, and uric acid were normal. Stone analysis showed a mixed stone, containing triple (calcium, ammonium, magnesium) phosphate, calcium oxalate and phosphate but no uric acid.

Discussion

Failed urethral dilatation is not uncommon in patients on repeated dilatations in a bougie clinic, and restricting is a most important cause. Large urethral calculi have been reported in failed catheterization,² and perhaps dilatation will not be attempted. A vesical stone is an unusual cause of failed urethral dilation. Vesical stones are frequently encountered in our bouginage clinic (unpublished data), and giant stones are not rare.^{3,4} Most of these patients are on a regime

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Figure 1: Plain Abdominal Radiograph Showing Large Radio-Opaque Shadow In The Bladder Region

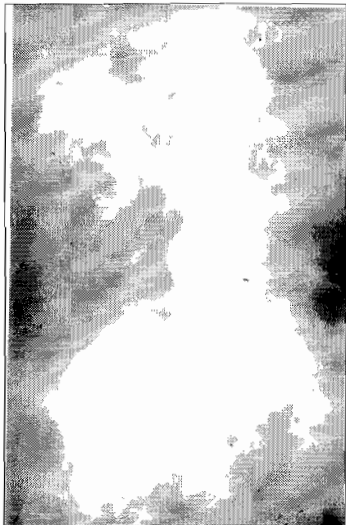


Figure 2: Large Stone After Removal From The Bladder



of repeated urethral dilatations in the bougie clinic or on temporary suprapubic urinary diversion and awaiting repair of their stricture. This patient presents an unusual cause of failed urethral dilatation and another mode of presentation of a vesical calculus. Bladder contraction is not uncommon in patients on prolonged, continuous suprapubic drainage and the relative stasis of urine at the bladder base and infection creates a favorable milieu for stone generation. The mixed growth of *Escherichia coli* and *Proteus species* in the absence of metabolic disorders suggests the infective origin of the stone. The gritty 'sound' on a bougie during dilatation must be borne in mind when dilatation fails; it might be a vesical calculus.

References

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