

Impacted calculus within a urethral stent: A rare cause of urinary retention

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ABSTRACT

An elderly male presented to the emergency department with acute urinary retention. He had poor flow of urine associated with serosanguinous discharge per urethra for 3 days duration. Earlier he underwent permanent metallic urethral stenting for post TURP bulbar urethral stricture. Plain X-ray of Pelvis showed an impacted calculus within the urethral stent in bulbar urethra. Urethrolitholapaxy was done with semirigid ureteroscope. Urethral stent was patent and well covered. Subsequently he had an uneventful recovery. We describe a unique case of acute urinary retention due to calculus impaction within a urethral stent.

Key words: Urethral calculus, urethral stent, endoscopic treatment

INTRODUCTION

Permanent urethral stents have been used for treatment of recurrent urethral stricture in men who are unfit or refusing urethroplasty. Even though the initial results of the urethral stents were promising, long term follow-up revealed higher incidence of complications and poorer results.^[1] We report a case of acute urinary retention due to stone impaction within the permanent urethral stent placed for recurrent urethral stricture.

CASE REPORT

A 67-year-old male underwent transurethral resection of prostate (TURP) four years ago for benign prostatic hyperplasia. Six months later he developed 1.5cm long 6Fr caliber proximal bulbar urethral stricture and underwent endoscopic internal urethrotomy (EIU). He had recurrence

of stricture at the same site six months later. As he had multiple comorbid illnesses precluding a urethroplasty and he was not willing for the same, a 35mm Microvasive Ultraflex 42Fr permanent metallic urethral stent was placed after internal urethrotomy. He was asymptomatic for three years and later on developed voiding urinary tract symptoms associated with serosanguinous discharge per urethra for three days. He presented to the Emergency Department with acute urinary retention. An attempted urethral catheterization failed. Suprapubic cystostomy (SPC) was done and a 14Fr foley's catheter placed. Plain X-rays of the pelvis revealed a 2cm long calculus impacted within the urethral stent [Figures 1 and 2]. Urethrolithotripsy using 8.9 Fr / 13 Fr Wolf semi-rigid ureteroscope was done due to firm stone impaction. There was no obstruction intraluminally across the urethral



Figure 1: Anteroposterior view of plain X-ray pelvis showing impacted calculus (hollow arrow) within the Ultraflex metallic stent in bulbar urethra

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Figure 2: Right antero-oblique view of the plain X-ray pelvis showing the same findings

stent and the stent was well covered. After urethral catheter removal, he voided well with good flow. Post operatively he is voiding well.

DISCUSSION

Permanent self expanding metallic wall stents are often used to treat bladder outflow obstruction due to various conditions like benign prostatic enlargement,^[2] detrusor-sphincter dyssynergia^[3] and urethral strictures.^[4] Their use in urethral stricture is limited to those who are too old or refusing urethroplasty and also advocated for treating patients in whom previous treatment has been unsuccessful.^[1] Though the initial short term success rate was good, the long term success was poor and many would require secondary intervention.^[5] Urethral stents are associated with complications like inappropriate placement, migration, stent encrustation, epithelial

hyperplasia, intraluminal or extraluminal strictures and malignancy.^[1,6] Urethral stents are also associated with formation of stones within the stent on the exposed part. Seventeen percent of the 60 men who underwent urethral stenting had stones within the urethral stent and had endoscopic management for it.^[1]

Our patient presented with acute urinary retention due to stone impaction within the urethral stent. To the best of our knowledge, such a complication has not been previously reported in English literature.

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