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Case Report

A very rare case report of giant calculus in bulbar urethra

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ABSTRACT

Urethral stones in adults are very rare and developed usually with urethral stricture or diverticulum. This is case report of 45 years old man who presented with a large urethral calculus in bulbar urethra resulting from an anterior urethral stricture. The patient presented with dribbling of urine from an opening in scrotal region for 3 months. On examination hard dull aching mass of size 3X2cm was palpable from bulbar urethra to anterior perineum. The calculus was removed by external urethrotomy with two layer closure of urethra.

Keywords: Bulbar urthera, Uretheral calculus

INTRODUCTION

Urethral stones are commonly associated with urinary tract calculi and underlying diverticulum or stricture urethra.[1] It presents less than 1% of all urinary stone diseases. Bulbar urethral calculi are extremely rare.[2] The majority of urethral calculi prevalence are seen in males and rarely in females.[3] We are reporting a case report of a large urethral stone impacted in bulbar urethra.

CASE REPORT

A 45 old male presented in urology department with dribbling of urine from an opening in scrotal region for 3 months. Patient reported history of burning micturition on and off with fever associated with chills and rigors. On local physical examination, a hard mass of size 3X2cm approx was palpable from penile shaft to anterior perineum with a small opening in median raphe with healed ulcer. General examination was normal. RGU was done (Figure 1). Cystoscopy revealed anterior urethral stricture with urethro cutaneous fistula with impacted urethral calculus. Routine blood investigations were carried out. X-ray KUB and USG abdomen were found to be normal. X-ray pelvis revealed a large calculus in bulbar urethra (Figure 2). Calculus was removed under spinal anesthesia by perineal urethrotomy. It measured 5X3 cm. It was found in bulbar urethra (Figure 3). Urethra was repaired in two layers. Foley's catheterisation was done.

Figure 1: RGU pictures of urethral calculus with urethro cutaneous fistula.

Figure 2: X-ray pelvis of giant calculus in the urethra.

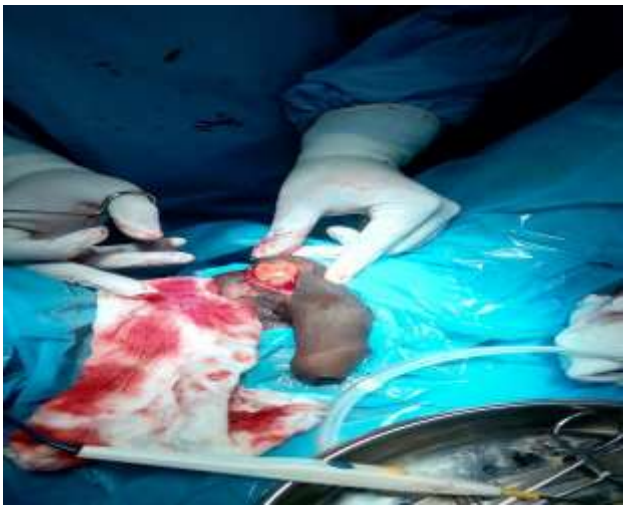

Figure 3: Impacted urethral calculus after uretherotomy.

DISCUSSION:

Urethral stones are rare form of urolithiasis accounting for less than 1% of urinary calculi, but having greater incidence in developing countries.[4] Urethral stones affect children more often than adults because of higher prevalence of bladder stones in lower age group.[5] Predisposing factors for formation of urethral stones include the presence of urethral stricture, urethral diverticulum, hypospadias and meatal stenosis.[6,7] It is found to be rare in females due to smaller urethra and lesser prevalence of vesical calculi.[8] Our patient could have developed this calculus secondary to anterior urethral stricture resulting in urinary stasis, and initiated the production of a large stone proximal to that segment. Prolonged stasis of urine resulted in periurethral abscess which bursted in scrotum leading to dribbling of urine forming uretherocutaneous fistula. During the initial stages of stone formation, two factors can be taken in consideration which could have prevented its elimination. Decreased and altered urinary flow could not produce enough pressure to propel the stone out distally. Secondly, gravity can be the other factor for lodging calculus in dependent location in the pre-stenotic dilated segment of urethra, not allowing it to pass. The possibility of migration of stone from the upper urinary tract was unlikely as the patient did not have any history of urinary colic or renal stones in the past. Based on the site of origin, urethral stones are being classified as primary and secondary or migrating.

Most of primary calculi are associated with urethral abnormalities such as stricture, diverticula and foreign body. Secondary stones are considered to be more common than primary stone and have seen migrated from higher up in the urinary tract.[9] Urethral calculi are mainly made of calcium phosphate, struvite, or calcium carbonate. Primary stones do not seem to cause acute symptoms, while migrant stones may present symptoms as acute retention, dysuria, dribbling, or sometimes pyuria.[9] Management of urethral calculi varies according to the site, size of calculus. For small urethral calculi, retrograde manipulation into the urinary bladder followed by litholapaxy or lithotripsy is a suitable procedure. Anterior urethral calculi can be removed with ventral meatotomy or urethroscopic method.[10] Bulbar urethral calculi should be treated with open surgery. In urethral calculus associated with stricture urethra, removal of stone and urethroplasty are preferable.[7] The treatment of choice for an impacted, large calculus in the bulbar urethra is perineal urethrotomy with urethroplasty with followup.

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