

Case report:

Giant urethral calculus with no retention of urine

¹Dr. Imtiaz Shah, ²Dr. Fayaz Khan, ³Dr. Muzzamil Mushtaq, ⁴Dr. Kanika Sharma, ⁵Dr. Tapsi Sharma

¹Professor and Head, Urology Unit 1, Post Graduate Department of Surgery ASCOMS, Jammu, India

²Assistant Professor, Post Graduate Department of Surgery ASCOMS, Jammu, India

³Post Graduate Student, Department of Surgery ASCOMS, Jammu, India

⁴Post Graduate Student, Department of Surgery ASCOMS, Jammu, India

⁵Post Graduate Student, Department of Surgery ASCOMS, Jammu, India

Corresponding author: Dr. Muzzamil Mushtaq

Abstract:

Calculus in urethra is rarely seen & is usually secondary to urethral stricture or diverticulum. We reported a case of giant urethral calculus in 59 yrs old male patient with no retention of urine. Management of urethral calculus varies according to site and size. Retrograde manipulation by cystoscopy to bladder followed by electrohydropoltripsy or cystolithopaxy is suitable for posterior urethral calculus. Anterior urethral calculus is managed by urethrotomy with extraction of the calculus followed by primary or staged urethroplasty. In our case, patient was managed by staged urethroplasty because of infection at the site of impaction.

Key words: urethral calculus, urethrotomy, cystoscopy

Introduction:

Urethral stones are commonly associated with urinary tract calculi secondary to underlying diverticulum or urethral stricture. Urethral calculi are already uncommon & giant calculi in urethra with no retention of urine is extremely rare¹. Urethral calculi are mainly seen in males and rarely in females³. We present giant urethral stone impacted in a diverticulum in bulbar urethra with no retention of urine.

Case history:

A 59 yrs old male patient, farmer by occupation, presented to urology Out Patient Department with history of straining on micturition & whitish discharge per urethra with chronic dysuria for the last 6 months. Patient didn't give any history of retention of urine or fever with rigors. Patient was non diabetic and non hypertensive. Patient recently had experienced increased frequency of micturition with

one episode of severe hematuria at night which disturbed his sleep pattern and compelled him to take medical advice. On examination patient's vitals were stable, bladder was not palpable, patient had bilateral epididymitis with no swelling or tenderness in perineum or urethra. External meatus was of normal caliber. Renal parameters were within normal limits with Hb 11.2 gms. Ultrasonography revealed 17gms prostate with mildly trabeculated bladder with total capacity 422 ml and residual volume of 91 ml with normal upper tract. Patient was subjected to cystoscopy for hematuria with 22F scope which revealed a buldge in lateral wall of anterior urethral bulbar region, buldge couldn't be negotiated with 22F scope so 17F scope passed the buldge in anterior urethra which revealed normal non obstructing prostate and mild trabeculations and no masses in the bladder. While coming out, buldge was examined again but no calculus or any discharge was noticed on

pressing the scope against the buldge. Patient was advised to undergo retrograde urethrogram to delineate the anatomy of urethra which revealed a huge giant urethral calculus in bulbar urethra with dye flowing freely to the bladder (fig 1). Patient was subjected to surgery with removal of calculus and diverticulectomy with staged urethroplasty.

Discussion:

Urethral calculus is rare and accounts for less than 1% of urinary calculi. Urethral calculus in general affects children more often than adults due to higher prevalence of bladder calculus in this age group. Urethral diverticulum, urethral stricture, hypospadias and meatal stenosis are predisposing factors for stone in urethra. Depending on the site of origin, urethral stones are classified as primary or secondary or migratory. Secondary stones are more common than primary stones & have migrated from higher up in the urinary tract. Urethral calculi are usually small⁵ but giant urethral calculi as in our case are rare.

Majority of urethral calculi may be asymptomatic as in our case or may be accompanied by one of the symptoms like perineal or penile pain, frequency, urgency or diminished urinary stream, dribbling or hematuria or patient may present with acute retention of urine. In our case, patient had diminished urinary stream with straining on micturition.

Diagnosis is based on clinical history and investigations. Ultrasonography, x ray pelvis and cystopanendoscopy are the main diagnostic tools.

Management of urethral calculus varies according to site and size. Retrograde manipulation by cystoscopy to bladder followed by electrohydroolithotripsy or cystolithopaxy is suitable for posterior urethral calculus. Anterior urethral calculus is managed by urethrotomy with extraction of the calculus followed by primary or staged urethroplasty. In our case, patient was managed by staged urethroplasty because of infection at the site of impaction.

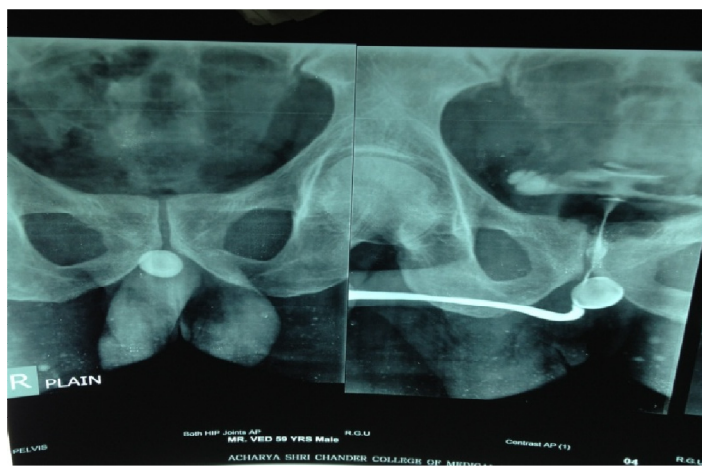


Fig. 1

References:

1. Ahmed QJ, Akatar M , Gulfan, Din G. Giant urethral diverticulum with calculus. Pak J Surg 2003;19:106-8
2. De Carvalhon HA, Giant Urethral Calculus: a case report. J urol 1977;118:334-5
3. Kamal BA, Anikwe RM, Darawani H, Hashish M, Taha SA. Urethral calculi presentation and management. Br J urol int 2004;93:549-52
4. Hegele A , olbert P, inlle S, Heidenreich A, Hofmann R. Giant calculus of the posterior urethra following recurrent penile urethral stricture. Urol int 2002;69:160-1
5. Deodhar SD, Khope S. Giant prostate urethral calculus. J postgrad Med 1983; 29:49-50
6. Takihara H, Jojima K, Tsuchida M, Joko K, Naito K. Giant urethral stone successfully removed via ureteroscopy. Bull Yamaguchi Med Sch 1991;38:49-51.
7. Win T. Giant urethral calculus. Singapore Med J 1994; 35:414-5.