

## A Rare Case of Giant Urethral Calculus & Diverticulum in Female



### Medical Science

**KEYWORDS :** Giant urethral calculus, Impacted urethral calculus, Urethral diverticulum, Urethrovaginal fistula.

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### ABSTRACT

*Urethral calculus with urethral diverticulum are not only uncommon, but majority of the recorded cases have been in the male. Primary urethral calculi is extremely rare in female. The present case concerns a multiparous woman, aged 60 yrs, who presented with retention of urine with large urethral calculus and urethral diverticulum, she also had complaints of unexplained discomfort and pain in urethral region with decreasing flow of urine for two years. On per-vaginal examination, a small, tender, hard mass was palpable on anterior vaginal wall. The diverticulum was approached via vaginal route and extraction of the stone done.*

### INTRODUCTION

Urethral stones are commonly associated with urinary tract calculi and underlying diverticulum or stricture urethra.<sup>1</sup> Urethral calculi represents less than 1% of all urinary stone diseases. Giant urethral calculi are extremely rare.<sup>2</sup> Because of a short urethra and less probability of formation of bladder stones, this pathology is even much rare in females.<sup>3</sup> We are reporting a very rare and interesting case of giant urethral calculus with diverticulum in an old female. The rarity of this condition promoted us to present this case.

### CASE REPORT

A 60 yrs. Lady presented in our institution with complaint of acute retention of urine of two days. She had history of dysuria, dyspareunia, frequency of micturition and lower abdominal pain for last two years. There was no history of any operation in perineum or genitalia.

**ON PELVIC EXAMINATION :** Leakage of purulent yellowish discharge was noted from external urethral orifice. Careful palpation of anterior vaginal wall reveals a tender, hard mass of size 3.5x3.0 c.m. placed about 3.0 c.m. above the interoitus.

Urinary bladder was grossly distended. X-ray pelvic region was suggestive of radio-opaque shadow between the pubic bone (Fig.1). Passage of metallic probe per-urethrally confirmed the suspicion of a calculus in urethra. Routine blood investigations and renal function tests were within normal limits. Urine culture didn't show any organism. Calculus was removed under spinal anaesthesia by incising urethra through the anterior vaginal wall to the greater point of the swelling and the calculus was the gently detached and removed (Fig.2). Urethra was closed down in two layers, A 16 FG Foley's catheter was left in situ for a few days. The stone was measured 3.2x2.8x2.6 cm. and weighted 19 grams. Patient made rapid and full recovery without any complication.



**Fig-1**



**Fig-2**

**Fig.1: X-ray Pelvis Showing Radio-Opaque shadow in pubic region**

**Fig.2: Intraoperative pic. Showing Incision over Vaginal wall**

### DISCUSSION

Urethral stones are rare forms of urolithiasis accounting for less than 1% of urinary calculi, but have greater percentage in developing countries.<sup>4</sup> Primary calculus of urethra is very rare and usually occurs in a congenital diverticulum.<sup>5</sup> The quality of life of the patient who have a diverticulum (especially with calculi) may be significantly disturbed because of complications such as mass effect, post void dribbling of urine, pain and urinary tract infection.<sup>6</sup> Reported incidence of urethral diverticulum in adult woman is between 0.6 and 6.0% and associated stone formation is reported in 1.5 to 10% cases.<sup>7,8</sup> Urethral stones in general affects children more often than adults, due to higher prevalence of bladder stones in this age group.<sup>9</sup> They are exceedingly rare in females because of lower incidence of vesical calculi and shorter urethra.<sup>10</sup> Urethral calculi are generally classified as native/primary (those formed denovo in urethra) or migratory/secondary (those formed in the bladder or kidney with secondary descend), migrant calculi are reported to be at least 10 times more common than native calculi.<sup>11,12</sup> The predisposing factor for insitu development of urethral stones include the presence of urethral diverticulum, urethral stricture and meatal stenosis.<sup>11,13</sup> The clinical presentation of urethral calculi is variable, specific signs and symptoms usually depends on the anatomic location of the stone. Anterior urethral stones causes dysuria and may be confirmed by palpation. On the other hand posterior urethral calculi may produces pain referred to the rectum or perineum.<sup>11</sup> Urethral calculi mainly composed of struvite, Calcium phosphate or Calcium carbonate.<sup>14</sup> Primary stones do not causes acute symptoms, while migrant stones may present as acute retention, dysuria, dribbling and sometimes sepsis in the presence of infection.<sup>2</sup> Management of urethral calculi varies according to the site, size and associated urethral diseases. Retrograde manipulation in urinary bladder followed by litholopaxy or lithotripsy is suitable process for small urethral calculi.<sup>15</sup> Giant urethral calculi should be treated with open surgery. In meatal stones associated with stricture urethra (male), stones removal and urethroplasty are preferred.<sup>13</sup> On follow up of four months showed no evidence of urethral stricture or recurrent stone in our patient.

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