

Case Report

Calculi In A Female Urethral: A Rare Cause of Acute Urinary Retention

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Abstract:

Urinary calculi are rarely seen in the urethra and are usually encountered in men with urethral stricture or diverticulum. The case of a 23-year-old woman presented with acute retention of urine associated with recurrent urinary tract infection. Cystoscopy was done and the stone was removed. The patient has been well, with no dysuria, and incontinence for 3-month follow-ups.

Key word: Female urethra, calculous

Introduction:

Urinary calculi are rarely seen in urethra and are usually encountered in males. In females, the urethra is short and wide. So the urinary calculi, which pass through the internal sphincter, easily negotiate the rest of the urethra. Furthermore, stricture is uncommon, and owing to its vertical disposition stagnation of urine is almost unknown. Therefore the majority of cases of urethral calculus are seen in males.

Case Report:

A 23-year-old woman presented to the emergency department with history of acute retention of urine. The patient also complained of lower abdominal pain and dysuria. Her past medical history was not significant except for pain abdomen 15 days back and she was on no home medications. In view of acute retention, further evaluation was considered.

Pelvic examination was unremarkable and a plain catheter was tried but could not be negotiated. A Plain skiagram was taken which showed a radio opaque calculus at symphysis pelvis (fig I). We then performed the Ultra-sonography and an echogenic focus of size 1.3cms with posterior shadowing, was seen situated in the female urethra, with surrounding mucosal odema (fig II)

On admission, vital signs were all normal and laboratory tests demonstrated microscopic pyuria (5-9/high power field). Cystoscopy was planned instead of cystourethrography, because if the calculus obliterates the opening, radiologic contrast cannot fill and there may not be clear evidence of calculus. Emergency cystoscopy was done and the calculus was removed.

When we tried to look into the cause of impaction, we found that the calculus in the urinary bladder in a KUB skiagram taken 15 days back for pain abdomen (fig III). The calculus probably got impacted because of mucosal edema following recurrent urinary tract infections.

The patient has been well, with no dysuria, and incontinence for 3-month follow-ups.

Discussion:

The clinical presentation of urethral calculi is variable. Specific signs and symptoms usually depend on the anatomic location of the stone. Anterior urethral stones cause dysuria and posterior urethral calculi may produce pain referred to the rectum or perineum. Many clinicians do not perform further evaluation for these symptoms and, therefore, likely to be missed in the early stages.

Urethral calculi are classified as native (those formed in denovo) or migratory (from kidney, ureter & bladder). Calculus formed in denovo requires a pre-existing urethral pathology like stricture, diverticulum or an abscess cavity¹. But the migratory calculi are 10 times more common than native calculi². Rivilla et al had reported a giant urethral calculus impacted in a 6 year old female child³. Shim et al reported a calculus in a female urethral diverticulum⁴. Most of the reported cases are calculus formed in a diverticulum in female urethra. Migratory calculus though 10 times more common, are rarely reported which prompted us to report this case in a female.

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Fig I: X-Ray shows radio-opaque shadow in the region of symphysis pubis



Fig III: Plain x-ray KUB showing radio-opaque shadow in the pelvis on right side below the level of ischial spine

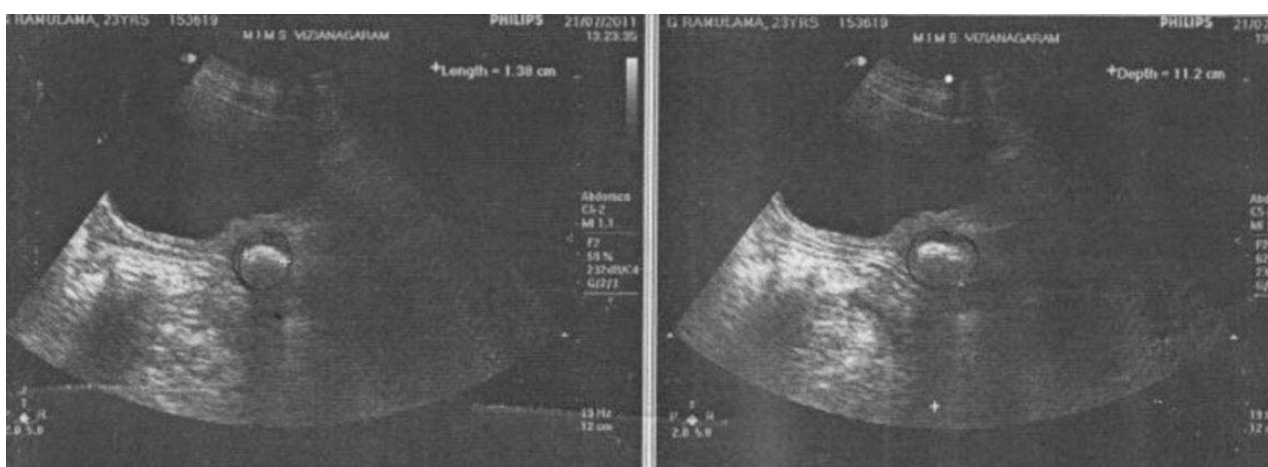


Fig II: Ultrasonogram showing echogenic shadow with posterior shadowing in the region of urethra

Acknowledgment Statement: Nil

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