



AN UNUSUAL CASE OF IMPACTED STONE AT URETHRAL MEATUS IN A FEMALE

General Surgery

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ABSTRACT

Aim & Objectives: To report an unusual case of impacted urethral meatus calculus in a female.

Material & Methods: A 51 year old female presented to Bharati hospital with complaints of pain over the external meatus and foreign body sensation in her urethral meatus since 2-3 hours. Detailed history taking and physical examination, revealed an impacted calculus, obstructing the external urethral meatus, which was removed under local anesthetic agent (2% lignocaine jelly), using a curved artery forceps.

Conclusion: In female patients, presenting with severe pain in the external urethral meatus, palpable mass/ foreign body sensation around the urethra, acute retention of urine, poor stream of urine and dribbling micturition; urethral calculi, should be considered inspite being rare in females.

KEYWORDS

Urethral calculi; impacted calculus; urethral meatus, extrication

INTRODUCTION

Urolithiasis has long plagued human civilization.¹ Urethral calculus is a rare condition and uncommon type of urolithiasis. They account for 0.3% to 2% of all urinary tract stones. It is seen more commonly in men, due to the urethral anatomy than in women are.² Urethral stones are of two types, primary /native and secondary / migratory. Majority of times, patients with urethral calculi present with acute retention of urine, pain (perineal /external meatal/ urethral/rectal), weak stream with dribbling of urine or a palpable urethral mass. Most stones pass from the kidneys or bladder and affect urethra.^{3,4} The inability to identify an impacted urethral calculus may lead to stricture formation at the urethra, incontinence, urethrocutaneous fistula, and renal insufficiency.⁵

CASE REPORT

A 51 year old female presented to Bharati Hospital and Research Center with complaints of pain over the external meatus and foreign body sensation in her urethral meatus since 2-3 hours. Pain was sudden in onset, severe in intensity, increased after micturition. She also complained of straining during micturition, associated with poor stream of urine. Detailed history taking and physical examination in lithotomy position revealed an impacted calculus, obstructing the external urethral meatus. (Fig.1).

The patient was explained in detail regarding her condition and the line of treatment required. After taking her due consent, a stone measuring approximately 1cm in size was extricated after adequate lubrication with local anesthetic agent (2% lignocaine jelly) with the help of curved artery forceps. (Figs.2 & 3). She passed urine after removal of the impacted stone and was relieved of her pain immediately. No hematuria was noted. Ultrasound of abdomen & pelvis was done, which was suggestive of ureteric stones.

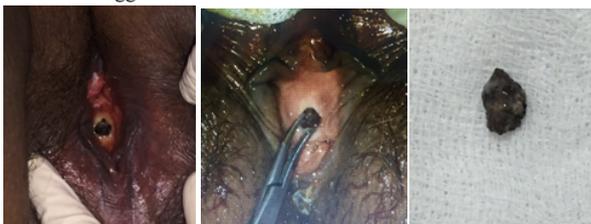


Figure 1

Figure 2

Figure 3

DISCUSSION

Prevalence of urethral stones is 7 per 100,000, with male predominance. Male to female ratio is 13:1.⁶ Urethral calculi are mainly struvite in nature.^{7,8} Urethral stones can be classified into primary/ native (those formed in situ in the urethra) and secondary/ migratory (those formed in the upper urinary tract, which descend into the urethra).

Primary urethral stones are slow growing in nature and are seen in conditions like urethral diverticulum, meatal stenosis, neurogenic

bladder, chronic stasis, urinary infection, prostate lesions, abscess cavities and fistulous tracts. Migrant urethral calculi are more common.^{6,9}

In this case the stone was migratory in nature, since ultrasound was suggestive of ureteric calculi which would have migrated from lower urinary tract, and no abnormalities were noted in the patient's urethra.

Due to rarity of urethral stones, there is no gold standard management available. Thus the objective of management of urethral calculi should be to resolve the obstruction of the urinary tract by removing the calculus without any complications.¹⁰

Treatment depends on the available facilities such as endoscopic in situ lithotripsy, pushing the stone back into the bladder, cystolithotripsy ultrasound fragmentation, urethrotomy or extraction after lubrication with local anesthetic agent.^{11,12,13}

In this patient, treatment of choice was extraction of stone after adequate lubrication with local anesthetic agent because of the early presentation, location and size of the stone. Complications like urethral stricture, long-term urethra damage, incontinence, fistula formation, renal insufficiency and even penile gangrene can occur.

CONCLUSION

In female patients, presenting with severe pain in the external urethral meatus, palpable mass/ foreign body sensation around the urethra, acute retention of urine, poor stream of urine and dribbling micturition, urethral calculi should be considered, inspite being rare in females. Manual extrication of stone should be cautiously done keeping in mind the complications.

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