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Urethral calculus causing retention of urine in a female

Mathew Yamoah KYEI

¹ Department of Surgery, University of Ghana Medical School, College of Health Science, University of Ghana, Accra, Ghana

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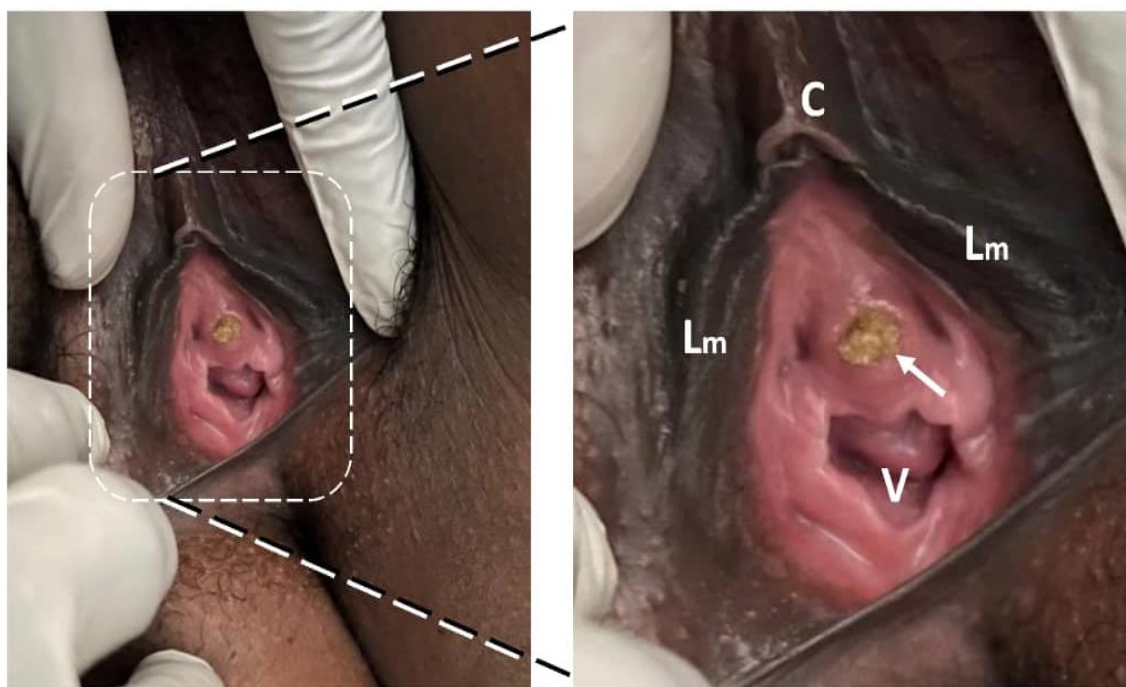


Figure 1: Urethra calculi (arrowed) in the urethra of a female. C is clitoris, Lm is labium minus and Vis vagina

Urethral calculi form only 1 - 2% of calculi involving the urinary system [1,2] and have been noted to be extremely rare in females due to their short urethra that has a straight course [1,3]. The stones tend to be secondary, having originated from the upper urinary tract or the urinary

bladder [1]. Primary Urethral calculi arise from stasis in the urethra diverticulum or precipitate around foreign bodies in the urethra [4]. Its management is to retrieve the stone if it is small so as to traverse the external Urethral meatus [5]. However, this is best avoided if the calculi are large, as forceful retrieval might damage the urethral mucosa and lead to urethral stricture formation [6]. Therefore, if the calculus is large, it is recommended it be manipulated back

* Corresponding author
Email: mkykyei@ug.edu.gh

into the urinary bladder and then managed by fragmenting the stone with less risk in the capacious bladder using cystolitholapaxy or intracorporeal lithotripsy using stone removed through an incision into the urinary bladder [1]. It has been noted that in situ lithotripsy with the calculi still lodged in the urethra has the potential to injure the urethra mucosa and result in the development of a urethra stricture. The use of laser lithotripsy has been noted to have a relatively lower risk [7,8]. This medical image, in this case report, demonstrates an impacted urethral calculi or stone causing retention of urine in a female (figure 1), suspected to have arisen from the upper urinary tract or the urinary bladder. The patient gave consent for the image to be published. The case is a 25-year-old female with a two-day history of frequency of micturition and subsequently presented with acute retention of urine at a urology outpatient clinic. There was no history of haematuria, abdominal pain or passing urinary stones. She was nulliparous. Examination reviewed a distended urinary bladder with suprapubic tenderness. On vaginal examination, inspection at the introitus revealed an impacted stone in the urethra (Figure 1). The stone could not be retrieved due to its size and, hence, was manipulated back into the urinary bladder with the aid of a size 18 Foley catheter under local anaesthesia. This relieved her of urinary retention. The planned management is to have cystolitholapaxy under spinal anaesthesia after ruling out the presence of any additional calculi in the upper urinary tract and urinary bladder with a planned abdomen and pelvic computer tomography scan. Reports have indicated successful management using these modalities with good urinary flow [1,5].

DECLARATIONS

Ethical considerations

Informed consent was obtained from the patient for this report. This report does not contain information that could lead to the traceability of the patient.

Consent to publish

None

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None

ballistic, ultrasonic or laser lithotripters. In low-resource treatment centres, a cystolithotomy is performed with the

Competing Interest

No potential conflict of interest was reported by the authors.

Author contributions

KMY conceived the study, designed the collection of study information, and wrote and edited the manuscript.

Availability of data

All relevant information is provided in the manuscript. The published information is available from the corresponding author upon a reasonable request.

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