

Prolapsed Ureterocele Causing Acute Urinary Retention in Adult Female with Bilateral Ureterocele – A Rare Entity

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Abstract: A case report of a 39 year old female who presented with acute urinary retention and a mass protruding out of external urethral meatus. On examination there was a palpable urinary bladder with a cystic mass at external urethral meatus. Urinary retention was relieved by catheterisation after manual reduction of urethral mass in urinary bladder. Ultrasonography revealed right hydronephrosis with hydroureter, no evidence of calculi and normal left kidney. CT-IVU showed bilateral ureterocele, largest on the right side. Patient underwent cystoscopy with right ureterocele incision. Prolapsed ureterocele, though rare, physician should consider it as a differential diagnosis of vulval mass with urinary retention.

Keywords: prolapsed ureterocele, vulval mass

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I. Introduction

A ureterocele is a submucosal cystic dilatation of the distal ureteral segment. The anomaly has a female preponderance, more common in paediatric age group. The reported incidence of ureterocele varies between 1/5000 and 1/12000¹. 10% are bilateral. The prolapse of a single system ureterocele causing a vulval mass and urinary retention in an adult with bilateral ureterocele is rare event and to our knowledge only one case have been reported². This is a case report of a 39 year old female who presented with acute urinary retention (AUR) and history of a painful mass protruding out of vulva.

II. Case report

A 39 year old female presented to emergency department with acute urinary retention for 6 hours. She had history of difficulty in passing urine, weak urinary stream, straining during micturation, and dysuria for preceding 3 days. She also noticed a mass protruding out of vulva. On examination bladder was palpable upto umbilicus and tender cystic mass palpable at external urethral meatus [Fig.1].



Fig. 1 – Cystic mass at external urethral meatus

Ultrasonography revealed (R) hydronephrosis and hydroureter. No evidence of calculus. Left kidney was normal. Acute urinary retention was relieved by catheterization with 16 Fr Foleys catheter after manual reduction of the vulval mass into the bladder. CT IVU revealed right sided hydroureteronephrosis with filling defect at both VU junctions in the bladder (cobra head appearance) suggestive of bilateral simple ureterocele (Right >Left) [Fig. 2a, 2b]. DTPA renal scan was done and revealed a decreased GFR of 32.5ml/min in the (R) kidney contributing to 38% function. Patient was posted for definitive treatment with cystoscopy and ureterocele incision [Fig. 3-5]. Patient was asymptomatic postoperatively and was followed up for a period of one year and no ureteric reflux was seen.

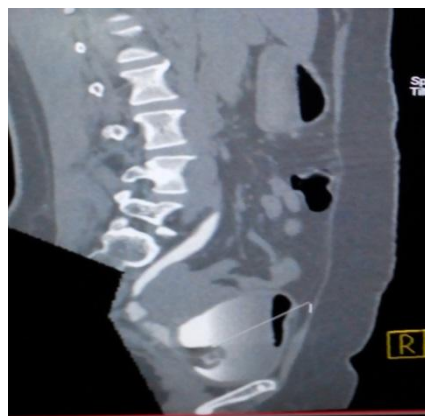
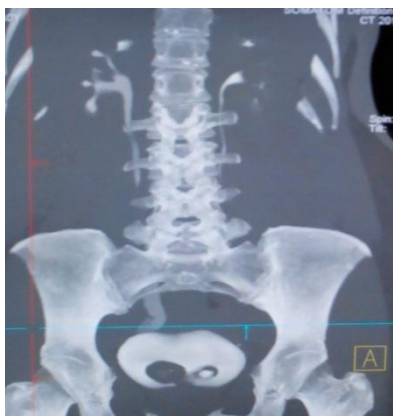


Fig. 2a, 2b – CT-IVU- Filling defect at bilateral VUJ suggestive of bilateral ureteroceles.

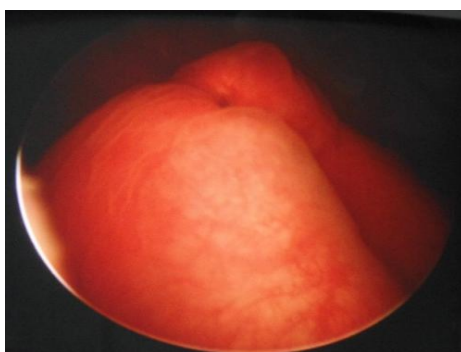


Fig. 3 – Cystoscopy showing right ureterocele

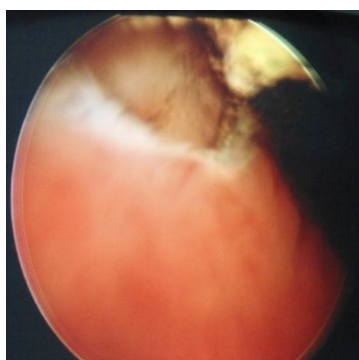


Fig. 4 – Ureterocele incision

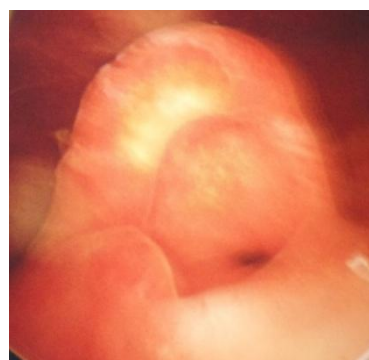


Fig. 5 – Post-operative

III. Discussion

A ureterocele is the cystic dilatation of the distal ureteral segment. The anomaly has a female preponderance, with a ratio of 4-7:1³⁻⁵. Ureteroceles may be simple or ectopic, single or duplex system, and depending upon affected urethral orifices as stenotic, sphincteric, sphincterostenotic or cecoureteroceles. In ureterocele the distal ureter balloons at its opening into the bladder, forming a sac like pouch. It is most often associated with the duplicated collection system, where two ureters drain their respective kidney instead of one. As the ureterocele mostly slides down the posterior wall of the urethra, the clinician could find the urethral meatus anterior to the mass and insert a catheter to decompress the bladder⁹. Urinary retention secondary to prolapsing ureterocele in adults has been reported in only seven cases. All of these occurred with unilateral prolapsed of a single system ureterocele⁶⁻⁸. This case constitutes the second reported adult case of a bilateral ureterocele causing bladder outlet obstruction secondary to prolapse of one of the ureteroceles. Disease like urethral prolapses, paraurethral cysts, imperforate hymen and hydrocolpus, botryoid rhabdomyosarcoma, wilms tumor and urethral polyps can also present with a vulval mass and must be considered in differential diagnosis.

The initial treatment of a prolapsing ureteroceles is directed towards the decompression of the mass. The manual reduction into the bladder might be attempted but recurrence is likely. A transverse deep incision of the ureterocele at the level of the vagina might be beneficial in some cases. Surgical unroofing or

marsupialization is reserved for complex cases and treatment failures⁹. The definitive treatment for the ureteroceles depends on the age, renal function, and type of ureterocele (simple v/s ectopic, single v/s duplex).

IV. Conclusion

Prolapsed ureterocele, though rare, physician should consider it as a differential diagnosis of vulval mass with urinary retention. The definitive treatment for the ureteroceles depends on the age, renal function, and type of ureterocele (simple v/s ectopic, single v/s duplex).

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