

## Management of Prolapsed Ureterocele: A Case Report and Review of Literature

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Received: 15-06-2025

Accepted: 12-12-2025

Conflicts of interest: None

**Keywords:** Ureterocele, Prolapsed Ureterocele

### Abstract:

*Ureterocele is a cystic dilatation of submucosal distal ureter. It presents a higher incidence in infants and young children but is rare in adults. The urethral prolapse of ureterocele is extremely rare, and its clinical presentation includes valvular mass, haematuria, and urinary tract dysfunction. This complex case of prolapsed ureterocele in a young female with a protruding mass in the urethral orifice.*

### Introduction:

An ureterocele is a congenital saccular dilatation of the terminal portion of the ureter. They are 4 times more likely to occur in females.<sup>1</sup> Ureterocele is one of the disorders that is associated with complete kidney duplication (95 %).<sup>2</sup> Cecoureterocele is an uncommon type of ureteroceles, where the blind pouch of the ureterocele is elongated beyond its orifice by tunneling into submucosa under the bladder trigone and through the urethra.<sup>3</sup> Adult ureterocele can also be found accidentally during imaging studies, and most

commonly presented with no symptoms<sup>4</sup>. This a complex case of prolapsed ureterocele in a young female with a protruding mass in the urethral orifice.

### Case report:

A 20-year-old female presented to the hospital with a complaint of painful protruding mass in the vagina. She also complaint of obstructive voiding. She denies any prior irritative voiding symptoms, recurrent urinary tract infections, flank pain or gross haematuria.



(Before aspiration)



(After aspiration of hemorrhagic fluid)

**Fig.1:** Gross picture of ureterocele prolapsed

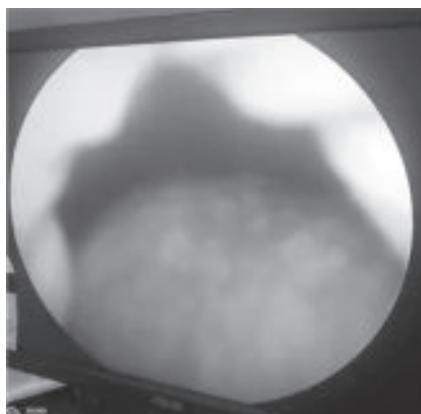
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On physical examination a 5x3cm cystic mass (Figure 1) is protruding from urethra which is reddish discoloration, not showing correlation with the vagina. Manual reduction was attempted at bedside, but was not pursued because of pain. USG reveals right sided hydroureteronephrosis.

During examination under spinal anesthesia manual reduction was attempted, but was not pursued, after evacuation of hemorrhagic fluid from the cystic mass with 10 ml disposal syringe. A 14 urinary catheter pass through urethra beside cystic mass.



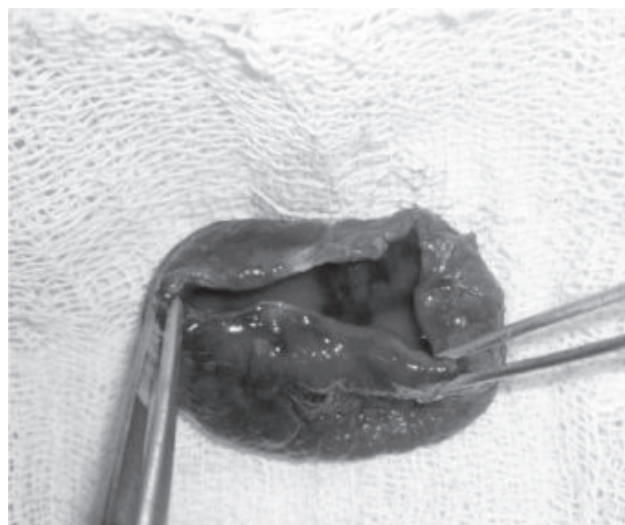
**Figure 2:** Urethroscopy view of prolapse ureterocele

During cystoscopic procedure ( A 22 french rigid ) a single ureterocele was revealed on the right side (Figure 3) matching the formerly prolapsed mass. The right ureteric orifice was not to be identified. There were no anomalies in the left ureteric orifice.



**Figure 3** Cystoscopy view: Marsupialization portion of the ureterocele

Therefore, it was decided to perform excision & marsupialization of the ureterocele outside the urethral orifice. Again performed cystoscopy it reveals there was no bleeding from excised site of ureterocele, The procedure occurred without complications. Patient remained on a bladder catheter for 3 days after the procedure. In her follow-up after reduction she continued to be asymptomatic and USG did not show any evidence of obstruction. One year following surgery, the patient was asymptomatic without deterioration of renal function or urinary tract infection.



**Figure 4** Excised part of ureterocele

#### Discussion:

Single system ureteroceles are a rare entity in the adult population, with only a 1-3% prevalence.<sup>5</sup> These can present in a wide variety of ways to include pelvic pain, urinary incontinence, urinary retention, or simply introital mass. The primary goal however should always be the prevention of complications such as loss of renal function, recurrent urinary tract infections, and urinary incontinence.<sup>3</sup> Due to the anatomically complex situations which have to be faced, when treating a patient suffering from a ureterocele, gaining diagnostic clearance of these circumstances should always be the first step in approaching the patient's treatment. In order to achieve this clearance, radiologic tools such as sonography, CT/MRI-scans, or retrograde ureteropyelography should be chosen for each patient on an individual basis.<sup>6</sup> In the case of an ureterocele prolapse, an urologist must be involved early given the high likelihood of surgical intervention required.<sup>5</sup> Manual reduction of a prolapsed ureterocele

should be attempted initially because when it is successful, it can obviate a trip to the operating room. In reviewing the literature, management with reduction of the ureterocele with incision (unroofing) or reimplant were performed when it was determined there was ureteral obstruction.<sup>5</sup>In our patient, manual reduction was not possible in bed side. So we proceeded to reduce the ureterocele in the operating room under spinal anesthesia. Manual reduction was not performed. A rigid cystoscope reveals a single ureterocele on the right side matching the formerly prolapsed mass. Therefore, it was decided to perform marsupialization the ureterocele outside the urethral orifice without any complications. Therefore we removed it after a 3 days and the patient was able to void freely and empty her bladder. In her follow-up after reduction she continued to be asymptomatic and USG did not show any evidence of obstruction.

**Conclusion:** This case illustrates that despite the low reported incidence of prolapsed ureterocele associated with urinary retention. We must have a high index of suspicion and operative treatment excision & marsupialization is an option of treatment in case of select patients.

**Acknowledgments:** None

**Conflicts of Interest**

There is no conflict of interest regarding the publication of this article.

**References**

1. Arrabal-Polo MA, Nogueras-Ocaña M, Tinaut-Ranera J, Zuluaga-Gomez A, Arrabal-Martin M. Vulval tumor in an infant: prolapse of ureterocele. *J Pediatr.* 2012;161(5):964. doi:10.1016/j.jpeds.2012.05.055.
2. Press CR. *The Kelalis-King-Belman Textbook of Clinical Pediatric Urology.* CRC Press; 2006
3. Méndez-Gallart R, Estévez-Martínez E, Rodríguez-Barca P, García-Palacios M, Bautista-Casasnovas A. Prolapsed cecoureterocele presented as a prenatal genital mass: A urological challenge. *Can Urol Assoc J.* 2013;7(11-12):E757-60. doi: 10.5489/cuaj.497. PMID: 24282471; PMCID: PMC3840524.
4. S.K. Chowdhary, D.K. Kandpal, A. Sibal, R.N. Srivastava, Management of complicated ureteroceles: different modalities of treatment and long-term outcome, *J. Indian Assoc. Pediatr. Surg.* 2014;19(3):156-161.
5. Balzano F, Jellison F. Management of single system prolapsed ureterocele: a case report and review of literature. *MOJ Clin Med Case Rep.* 2019;9(3):57-58. doi: 10.15406/mojcr.2019.09.00304
6. Florian L, Stefan P, Mark M. A Prolapsed Cecoureterocele in an Adult Treated Conservatively: Highly Rare, but Existent. *Case Rep Urol.* 2016;2016:5049072. doi: 10.1155/2016/5049072. Epub 2016 Sep 14. PMID: 27703836; PMCID: PMC5039285