

Prolapsed ureterocele in an adult woman after endoscopic incision

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Abstract

A 44-year-old woman underwent endoscopic incision of a right simple ureterocele with hydronephrosis discovered during gynecological assessment for stress urinary incontinence with Stage I cystocele. At the postoperative visits, she has reported a persistent flap of mucosa coming out from her urethra protruding in the vagina despite manual reduction. An endoscopic resection of the mucosa flap was programmed. After 24 months, she was asymptomatic with no history of renal colic or urinary tract infection. In patients with a history of pelvic organ prolapse, the resection of the ureterocele in the first instance may be the optimal choice

Keywords: Endoscopic resection, prolapse, ureterocele, vulvar mass

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INTRODUCTION

Ureterocele is a congenital malformation due to a cystic dilatation of the distal part of the ureter. The clinical incidence occurs from 1/5000 to 1/12,000 per birth and is more common in female (female:male = 4–7:1).^[1] In most cases, the diagnosis was made in childhood. In the adults, observation may be occasional during imaging studies performed for other reasons. In the literature, the majority of the reported data for symptomatic ureterocele in adults are related to stones within or prolapsed ureterocele in women. Only case reports are reported for the management of prolapsed ureterocele in adult women. This condition is reported in 5%–10% of all age groups such as a protruding mass in the vagina; however, this circumstance is especially frequent in newborn girls.^[2]

CASE REPORT

A 44-year-old woman came to our attention for a right simple ureterocele with Grade III hydronephrosis, discovered during gynecological assessment for light stress urinary incontinence (SUI) with Stage I cystocele. A computed tomography (CT) scan confirmed a 7 cm × 4 cm right intravesical ureterocele with Grade III of hydronephrosis [Figure 1]. She underwent an endoscopic incision of the ureterocele on its basis under spinal anesthesia. A bladder catheter was placed and removed after 24 h. At the postoperative visit, she reported a bulging mass protruding in the vagina. A flap of mucosa coming out from her urethra was noted and manually reduced. At the ultrasound, no right hydronephrosis was detected. The following day, the patient returned with the flap protruding into the urethra, such as demonstrated by cystoscopy and

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Figure 1: Sagittal computed tomography scan images showed the right hydroureteronephrosis with the intravesical ureterocele of 7 cm × 4 cm. We can see how the ureterocele is completely intravesical without occupying the bladder neck

CT scan findings [Figure 2]. An endoscopic resection of the redundant part of the ureterocele was programmed. Final histopathological assessment showed normal mucosa. After 24 months, she was asymptomatic with no history of renal colic or urinary tract infection (UTI). At the ultrasound examination, no right hydronephrosis was revealed.

DISCUSSION

Endoscopic incision is the current standard treatment for intravesical ureterocele. In case of extravesical ureterocele, its management should consider the presence of UTI, renal function, and concomitant urinary malformations (ectopic meatus, ureteral duplication). Surgical therapies may include endoscopic treatments (multiple puncture, unroofing, or resection) or excision and ureteral reimplantation with open or laparoscopic/robotic approach.^[3] Resection of the ureterocele can theoretically result in the insurgence of *de novo* reflux (0%–50%), although reflux in a single-collecting system is rare.^[4] A prolapsing ureterocele in adults is a rare event and it is found more often in women due to the short urethra. In the literature, the appearance of a prolapsed ureterocele in adult women has been described in 22 cases, as a case report. The most common symptoms of presentation differ from urinary retention to vulvar mass. In seven cases, which have been published between 1979 and 1994, we did not find any information about management and outcomes. In the remaining cases, the management has been as follows: three cases have been treated with excision of the ureterocele and ureteral reimplantation, six cases with endoscopic resection, four cases with endoscopic incision, and two cases have been treated with conservatively approach. Regarding the patients who underwent endoscopic incision, in three cases, the authors have described the prolapse of an ureterocele

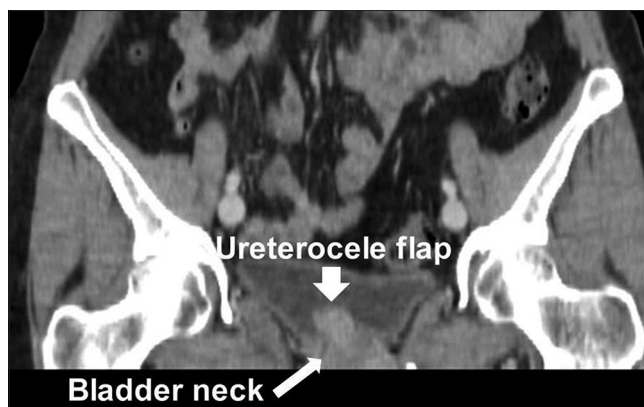


Figure 2: Postoperative coronal computed tomography scan image where we can see the ureterocele flap protruding in the bladder neck. The flap defect into the bladder neck, it appeared hypointense respect to the bladder contents and it was through the urethra

flap following the operation which have required a second endoscopic look with the resection of the redundant part of the ureterocele.^[5-8] In these three cases reported in the literature, the median age was 39.3 (range 35–42), whereas the fourth patient who had been underwent endoscopic incision that did not develop a relapse of the protrusion was 29-year-old female. Only in one of these cases, the presence of a Stage II cystocele was reported.^[7] No conclusion can be made regarding this condition; however, the literature data seem to suggest the safety of the endoscopic unroofing of the ureterocele. The size of the ureterocele may be a risk factor for the postoperative protrusion of the incised mucosa flap.^[7] In our opinion, a history of SUI and pelvic organ prolapse may also play a role in the modification of the pelvic floor dynamics that may favor the protrusion of the ureteroceles' flap through the urethra. In this kind of patients when no history of UTI or double-collecting system are recorded, the first approach with the incision and the resection of the redundant part of the ureterocele, such as previously described,^[9] may be the optimal choice. In this manner, we remove the subsequent risk of a second operation for the excision of the prolapsed ureterocele through the urethra in these patients with no risk of the incidence of *de novo* reflux.

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Conflicts of interest

There are no conflicts of interest.

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