

## Case Report

## Ectopic ureter inserted into the seminal vesicle

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## Abstract:

Ectopic ureter is defined as abnormal insertion of the ureter. The incidence of ectopic insertion of the ureter is more common in females and is usually associated with incontinence, leading to the diagnosis, while in males it is presented with infection, occurring in the posterior urethra in approximately 50% of cases. Other sites include the seminal vesicle (approximately one-third), vas deferens, bladder neck, prostate and epididymis, while the urethra and vagina are commonly affected in females. Management is usually addressed to the upper tract only; if there is incontinence it requires removal of the ureteric stump. We present a case of left ectopic ureter inserted into the left seminal vesicle which is a rare anomaly.

**Keywords:** Seminal vesicle, Ectopic, Ureter, Computed tomography, Endo-rectal ultrasound.

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## ملخص البحث

الحالب المنتبذ هو حالة طبية لا ينتهي فيها الحالب في المثانة البولية ، وإنما ينتهي في الإحليل في الذكور أو المهبل في النساء ، وقد يكون تشخيصه صعباً ، لكنه يُرى غالباً في الأشعة المقطعية . ينتج الحالب المنتبذ غالباً عن تضاعف نظام التجميع الكلوي، كلية ذات حالبين. في تلك الحالة يصب عادة حالب واحد بشكل صحيح في المثانة ، بينما يكون الحالب الآخر منتبذ.

## Introduction:

Ectopic insertion of the ureter is defined as abnormal insertion of the ureter, usually distal to the trigone into the urethra in male in approximately 50% of cases <sup>(1)</sup>. Other sites include the seminal vesicle (approximately one-third), vas deferens, bladder neck, prostate and epididymis, while the urethra and vagina are commonly affected in females. Ectopic insertion of the ureter in the genital tract is a rare anomaly. Its incidence is about 1:130000. It is more common in females and is usually associated with incontinence, leading to the diagnosis, while in males, it is present with infection <sup>(1)</sup>.

We present a case of ectopic insertion of the left ureter into the seminal vesicle (SV). It was initially diagnosed by ultrasound as pelvic abscess, then diagnosed by computed tomography (CT) and confirmed by endo-rectal ultrasound under general anesthesia.

## Case Report:

A twenty four years old male presented with lower abdominal pain, mainly left side, for one week duration, with fever and generalized weakness, nausea and vomiting. He was admitted to another hospital and was diagnosed as pelvic abscess.

The patient looked ill with severe pain and toxemia. Clinical examination revealed tender supra-pubic and left iliac areas. Laboratory investigations showed leukocytosis, with slight elevation of serum creatinine 1.6 mg/ml.

Pelvic ultrasound (US) showed a multilocular cystic lesion posterior to the bladder to the left side.



Fig. 1

Plain CT abdomen and pelvis showed tubular collection of the left ureter down to the posterior aspect of the bladder connected to a cystic lesion with altered fluid content most likely seminal vesicle, with loss of the left kidney

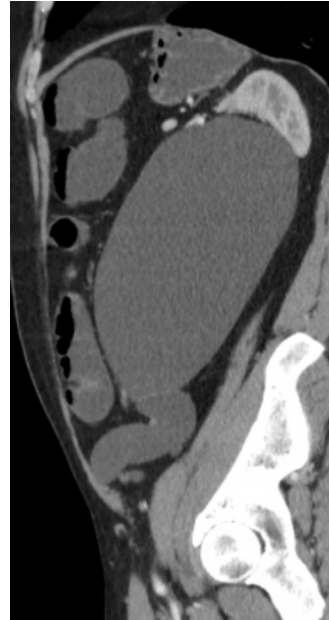


Fig. 2

Cystoscopy was performed where there was absent left trigone and left ureteric orifice.

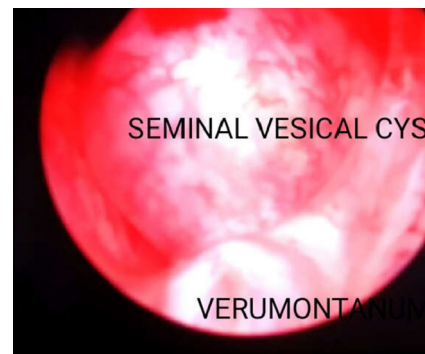


Fig. 3

## Discussion:

There is an association between congenital anomalies of the seminal vesicle and urinary tract anomalies due to their close embryological relationship (2). Ultrasound, CT and endo-rectal ultrasound are used for accurate delineation of the ureteral insertion, while MRI is the modality of choice for seminal vesicle evaluation. The difficulty in the diagnosis of ectopic insertion of the ureter usually occurs when plain CT only done due to impairment of renal function, and the ureter is not dilated and its insertion cannot be identified; in this case, CT or MRI with contrast is required to confirm the diagnosis.

In a case of ectopic ureter, pelvic ultrasound can show the dilated seminal vesicle as a cystic mass at the pelvis posterior to the bladder and also with dilated ipsilateral ureter if there is an associated kidney anomaly. Endo-rectal ultrasound (ERUS) allows better delineation of the cystic lesion wall and its relationship to the adjacent structures (3,4). ERUS can also be used in the puncture of the seminal vesicle with contrast injection for further CT imaging.

Intravenous urography (IVU) may be of no value if the affected kidney is non-functioning. There may be smooth indentation of the bladder by the cystic lesion at IVU and ascending cryptogram (3-7). In our case, the seminal vesicle was not enlarged enough to indent the bladder at the cryptogram.

CT shows the cystic lesion with low fluid density posterior to the bladder with no post-contrast enhancement and it can also diagnose associated renal anomalies (3-5).

## References:

1. Cooper CS, Snyder HM. The ureter. In: Adult and Pediatric Urology., editor. 4th ed. In: Gillenwater JY, Grayhack JT, Howards SS, Mitchell ME, editors. Philadelphia: Lippincott Williams and Wilkins; 2002. p. 2155.
2. Berrocal T, López-Pereira P, Arjonilla A, Gutiérrez J. Anomalies of the distal ureter, bladder, and urethra in children: embryologic, radiologic, and pathologic features. *Radiographics*. 2002;22:1139–1164.
3. Glassberg KI, Braren V, Duckett JW, Jacobs EC, King LR, Lebowitz RL, et al. Suggested terminology for duplex systems, ectopic ureters and ureteroceles. *J Urol*. 1984;132:1153–4.
4. Gangopadhyaya AN, Uoadhayaya VD, Panday A, Gupta DK, Gopal SC, Sharma SP. Single system ectopic ureter in females: A single centre

study. *J Indian Assoc Pediatr Surg*. 2007;4:202–5.

5. Borer JG, Bauer SB, Peters CA, Diamond DA, Decter RM, Shapiro E. A single-system ectopic ureter draining an ectopic dysplastic kidney: Delayed diagnosis in the young female with continuous urinary incontinence. *Br J Urol*. 1998;81:474–8.
6. Abeshouse BS. Ureteral ectopia: Report of a case of ectopic ureter opening in the uterus and a review of the literature. *Urol Cutaneous Rev*. 1943;8:447–65.
7. Li J, Hu T, Wang M, Jiang X, Chen S, Huang L. Single ureteral ectopia with congenital renal dysplasia. *J Urol*. 2003;170:558–9.