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# A Rare Case of Ectopic Ureter Presenting as Scrotal Abscess

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#### Abstract

Single system ureteral ectopia is rare. It is more commonly found in males. It is defined as any ureter, single or duplex, that does not enter the trigonal area of the bladder. In females the ectopic ureter may enter any where from the bladder neck to the perineum and into the vagina, uterus, and even rectum. In males the ectopic ureter always enters the urogenital system above the external sphincter or pelvic floor and usually into the wolffian structures including vas deferens, seminal vesicles, or ejaculatory duct. The presentation is variable. Males do not present with incontinence but with infection and pain of the affected organs e.g. testicles and epididymis and females usually present with incontinence of urine. We here present a rare case of ectopic ureter that presented to us as scrotal abscess.

Keywords: Ectopic ureter; Ureteric reimplantation; Scrotal abscess; Ureter opening into prostatic urethra.

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### Introduction

Ectopic ureter is a rare congenital malformation. Ectopic insertion of the ureter is defined as abnormal insertion of the ureter distal to the trigone. Site of ectopic ureter opening could be intravesical or extravesical and include the seminal vesicle, vas deferens, bladder neck, prostate and epididymis in the males, while the bladder neck, urethra and vaginal vestibule are commonly affected in females. Its incidence is about 1:130000 [1]. The prevalence of ectopic ureter is not well determined. Campbell reported 10 cases among 19046 autopsies in children [2]. While females usually present

with pseudo incontinence (urinary incontinence accompanied by regular micturition), ureteral ectopia in males is often misdiagnosed because of its relatively covert manifestations. Males usually present with urinary tract infection. We here present a case of ectopic ureter that presented as scrotal abscess.

# Case report

A one year old male child brought by parents to our outpatient department with history of acute scrotum and recurrent urinary tract infection (UTI).

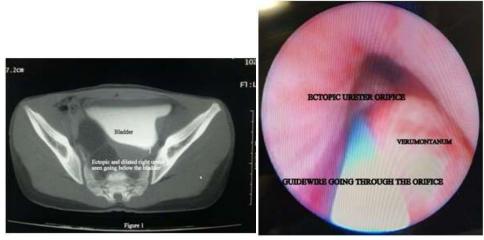


Fig. 1: Fig. 2:

Past history was significant and suggested drainage of scrotal abscess 6 months back and intermittent fever. Clinical examination suggested right sided scrotal abscess. Blood investigation showed leucocytosis and urine culture had Escherichia coli grown. He was started on culture specific antibiotics and the abscess was drained. Scrotal abscess at such an early age raised a doubt of some congenital anamoly in the child. Magnetic resonance imaging (MRI) of the abdomen and pelvis was ordered which suggested hugely dilated right ureter with ureterocoele opening into the bladder. As this could not explain the scrotal abscess a contrast enhanced computed tomography (CECT) (Fig. 1). was done which mimicked the MRI findings. Both the investigations were not in line with the clinical findings, so we planned to do a diagnostic cystoscopy and proceed. It was this that confirmed our clinical doubt of ectopic ureter. Cystoscopy showed that there was no ureterocoele and the right ureteric opening was present and opening at the level of verumontanum to its right side (Fig. 2), left ureteric orifice was normal. This changed the complete scenario. The child then underwent right ureteric reimplantation and recovered well.

## Discussion

Ureteral anomalies are most important urogenital abnormalities because they directly affect kidney function [3] and ectopic ureter represents one. It could be unilateral or bilateral, duplicated system or single system ectopia. In our case, it was unilateral and single system ectopia. The orifice could be intravesical or extravesical. In our case the opening was extravesical. In males the orifice is mostly found in the posterior urethra

as in the present case [4]. The clinical presentation is variable in males and includes recurrent UTI, dysuria, frequency, urgency, epididymitis, vesicoureteric reflux, etc. Our patient had recurrent UTI and had scrotal abscess two times which was an unusual presentation. Combination of investigations viz. clinical examination, ultrasound, CT scan, cysto-urethrography and cystoscopy will be diagnostic in most of the patients [5]. In our case also the combination of clinical findings, CECT and cystoscopy along with the strong clinical suspiscion were diagnostic. Clinical suspiscion is important as in our case the child could have suffered less and diagnosed earlier if the suspiscion was done early. Cystoscopy may reveal an absent ipsilateral hemitrigone, intravesical cyst protrusion and any other anatomical abnormality of the bladder [1]. Our case also showed ipsilateral hemitrigone. Treatment of ectopic ureter includes exploration, laproscopic or robotic ureteric reimplantation. Decreased complications along with decreased blood loss and lesser hospital stay are the benefits of minimal invasive surgery [6]. In the present case after draining the abscess, we did open ureteric reimplantatiion as we did not have the required instruments for the minimal invasive surgery.

## Conclusion

Ectopic ureteric opening is a rare conginal anamoly, with female preponderance [7]. Males usually have single system ureteral ectopia [7]. Combination of investigation are important for final diagnosis. Clinical suspiscion is must in case of abnormal presentation, especially in children.

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