



## Ureterocele Associated with Renal Agenesis Presented as a Pelvic Mass in an Adult

Mohammad Ghasem Mohseni<sup>1</sup>, Seyed Reza Hosseini<sup>1,\*</sup>, Alborz Salavati<sup>1</sup>, Shahrzad Dadgari<sup>2</sup>

<sup>1</sup> Department of Urology, Faculty of Medicine, Tehran University of Medical Sciences, Tehran, Iran

<sup>2</sup> JaameJam Radiology Center, Tehran, Iran

\* Corresponding author: Seyed Reza Hosseini, Department of Urology, Faculty of Medicine, Tehran University of Medical Sciences, 113674911. Tehran, Iran. Tel.: +98-2166701041, Fax: +98-2166737741, E-mail: srhosseini@tums.ac.ir

### ABSTRACT

Adult ureteroceles are generally known as simple ureteroceles with minimal obstructive effects that can usually be managed endoscopically. Such pathology presented with acute abdominal pain and fever in a 32-year-old man with left renal agenesis, a cranial blind left ureter and left obstructed ureterocele. The retained secretions were suppurative.

**Keywords:** Pelvic Region; Renal Agenesis; Ureterocele

Copyright © 2013, Tehran University of Medical Sciences and Iranian Society of Radiology; Published by Kowsar Corp.

### 1. Introduction

Adult ureteroceles generally known as simple ureteroceles with minimal obstructive effects are usually related to single systems. They are intravesical and less obstructive and endoscopic interventions are proven effective for relieving symptoms (1). As stated in the latest edition of Campbell-Walsh urology, they are four times more prevalent among females. The most accurate diagnostic modality is MRI, but they are often diagnosed by prenatal ultrasonography. As stated by the same reference, renal hypodysplasia may be accompanied by ectopic ureters, but the simple adult type ureterocele with concomitant renal agenesis is a really rare entity and only three cases have been mentioned in the literature (2, 3).

### 2. Case Presentation

A 32-year-old man presented with sustained ongoing left lower quadrant (LLQ) pain aggravating three days before admission and fever. He had no gastrointestinal complaints apart from decreased appetite. Severe pain made walking impossible. He did not report any dysuria or obstructive lower urinary tract symptoms. On examination, there was LLQ tenderness without rebound or guarding, no costovertebral angle tenderness, a normal external genitalia and a low grade fever. Laboratory exam results were normal, urine analysis had one to two WBCs and one to two RBCs in the high power field (HPF). Before being referred to the hospital, he underwent abdominopelvic ultrasonography which revealed a normal right

►Article type: Case Report; Received: 21 Aug 2011, Revised: 23 Sep 2012, Accepted: 28 Oct 2012; DOI: 10.5812/iranjradiol.10262

►Implication for health policy/practice/research/medical education:  
It is a rare case. The images are useful for medical education.

►Please cite this paper as:

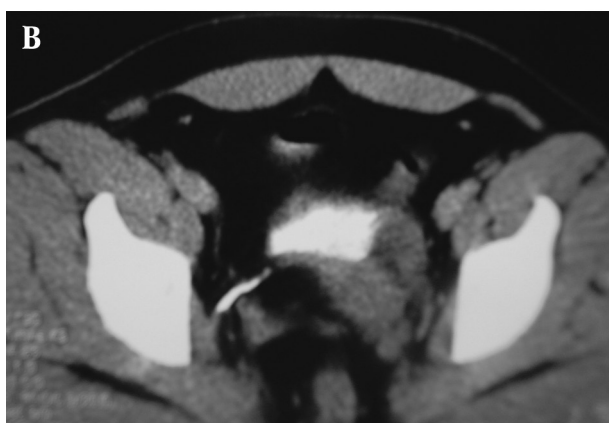
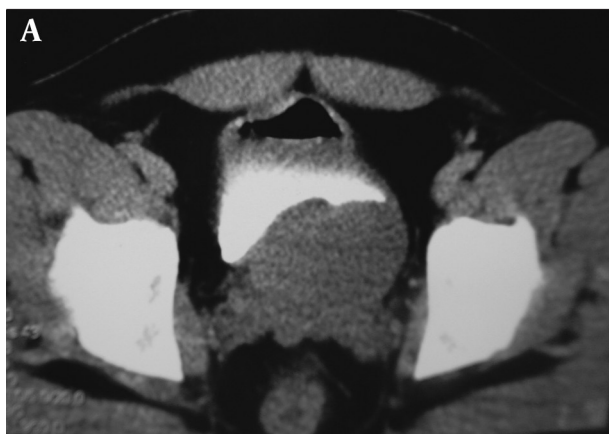
Mohseni M.G, Hosseini S.R, Salavati A, Dadgari S. Ureterocele Associated with Renal Agenesis Presented as a Pelvic Mass in an Adult. Iran J Radiol. 2013;10(1):45-7. DOI: 10.5812/iranjradiol.10262

►Copyright © 2013, Tehran University of Medical Sciences and Iranian Society of Radiology; Published by Kowsar Corp.

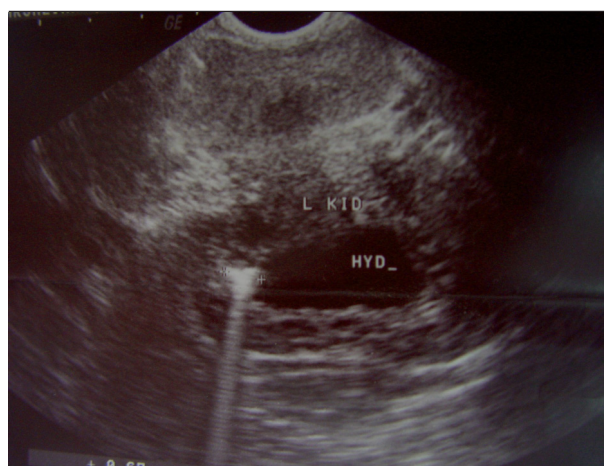
This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/3.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

kidney, no free fluids and a normal looking spleen and liver. The left kidney could not be seen and there was a  $55 \times 65$  mm<sup>2</sup> solid-cystic mass postero-lateral to the left bladder wall. Abdominopelvic contrast enhanced CT did not show any stones in the urinary tract, there was left renal agenesis and a solid-cystic non enhancing pelvic mass behind the bladder (*Figure 1*). Office based cystoscopy revealed a normal urethra and bladder mucosa and right ureter, left ureteral orifice looked normal, but could not be cannulized and the mass effect from an extravesical source was eminent on the left lateral wall and prostatic urethra.

On admission, a transrectal sonogram revealed a normal prostate and bilateral seminal vesicles and a  $56 \times 62$  mm<sup>2</sup> sized cystic mass with significant wall thickness containing fluid and an ectopic hydronephrotic pelvic left kidney was inferred (*Figure 2*). The DMSA renal isotope scan documented single right functional kidney in the abdominopelvic cavity. The patient underwent exploratory laparoscopy. A retrovesical pyo-ureterocele was encountered along the cranial blind end left ureter. Surgery converted to open ureterectomy and resection of the pyo-ureterocele. The pathology report confirmed dilated inflamed ureter with active suppurative inflammation (*Figure 3*). One month after surgery, the patient had no complaint.



**Figure 1.** A & B, A 32-year-old man with ureterocele and renal agenesis. There is an external mass effect on the left latero-posterior side of the bladder in CT-cystogram and a normal bladder mucosa.



**Figure 2.** Transrectal ultrasonogram of a left side pelvic mass behind the bladder. Note the thick wall of the cystic shaped mass and the echogenic particle inside with the posterior shadow.



**Figure 3.** Surgical sample consisting of blind end ureter and ureterocele

### 3. Discussion

Adult orthotopic ureterocele is a well-known entity, nevertheless concomitant blind ureteral bud, renal agenesis and ureterocele have only been reported in three cases previously, and a full-blown inflammatory and septic presenting feature of this case has led to a diagnostic challenge. Diverse differential diagnoses of a pelvic mass in the male which include prostatic cysts, mullerian duct remnants and malignancies of the seminal vesicles besides the scarcity of such cases in daily practice misled both the radiologists and the urologist. The patient was operated with a preoperative diagnosis of pelvic dysplastic kidney. Maas and colleagues reported the same cases being diagnosed by pelvic MRI (2) and another similar case was reported from Spain (3). A German patient was reported by Berg et al. (4). This patient was examined for prostatic tumor in young age and on MRI, it turned out to be a seminal vesicle cyst alongside a ureterocele accompanied by ipsilateral renal agenesis (4).

### Acknowledgments

None declared.

### Authors' Contribution

None declared.

### Financial Disclosure

None declared.

### Funding/Support

None declared.

### References

1. Halachmi S, Pillar G. Congenital urological anomalies diagnosed in adulthood - management considerations. *J Pediatr Urol.* 2008;**4**(1):2-7.
2. Maas KL, Lipson SA, Hricak H. Ureteric bud remnant in two patients with renal agenesis: diagnosis by MRI. *J Comput Assist Tomogr.* 1997;**21**(5):745-7.
3. Calleja Escudero J, Amo Garcia A, Garrido Redondo M, Rodriguez Toves A, del Rio Dominguez F, Martinez Sagarra JM. [Renal agenesis, cranial blind ureter and ureterocele. Report of a case]. *Arch Esp Urol.* 1995;**48**(1):89-91.
4. Berg F, Ohlmann C, Gossmann A. [MR tomographic diagnosis of a congenital seminal cyst in ipsilateral renal agenesis with ureterocele as rare differential diagnosis of prostatic tumor]. *Rofo.* 2005;**177**(9):1308-9.