

## Pseudoureterocele – A Case Report

**Author's Details:** <sup>(1)</sup> Suresh Rao, <sup>(2)</sup> Siva Konduru & <sup>(3)</sup> T. Ramesh Rao

<sup>(1)(3)</sup>Department of Preclinical Sciences, Faculty of Medical Sciences, the University of the West Indies, St. Augustine Trinidad & Tobago. <sup>(2)</sup>Consultant Radiologist, Medical Imaging Department, Sangre Grande General Hospital, Trinidad and Tobago.

**CORRESPONDING ADDRESS: Dr. Suresh R Rao** - Department of Preclinical Sciences, Anatomy & Cell Biology Unit Faculty of Medical sciences The University of the West Indies St. Augustine, Trinidad

### **Abstract:**

*Pseudoureterocele*s are acquired dilatations of the submucosal portion of the distal ureter that mimic simple ureterocele. Pseudoureteroceles are more likely to be associated with ipsilateral upper tract obstruction and have asymmetric intravesical dilatation. The urologist should be aware of this deformity, it is essential to have a sound knowledge of the anatomical details and familiarity with these anomalies for correct diagnosis and appropriate management, for the majority of pseudoureterocele are related to the malignancy of the bladder.

**Key Words:** Pseudoureterocele, ureterocele, cystoscopy.

### **Introduction:**

A simple adult ureterocele may be defined as a congenital cystic dilatation of the submucosal portion of the intravesical ureter [1]. Pseudoureteroceles are acquired dilatations of the submucosal portion of the distal ureter that mimic simple ureteroceles. The appearance of the radiolucent wall surrounding the dilated distal ureteral segment is an important differentiating point. The distinction is important, since most pseudoureteroceles were related to malignancy involving the bladder. In a pseudoureterocele, the lucency or halo is thicker than that of a ureterocele and is poorly defined in cases of tumors, it may be irregular and may show a filling defect within the ureterocele and there is asymmetry of the dilated ureteral lumen.[2,3] The majority of pseudoureteroceles are related to malignancy involving or invading the bladder[4].

### **Case Report:**

A 51 y old female presented to Sangre Grande hospital with history of acute pain abdomen. The patient's present complaints is pain abdomen , more to left side and radiating to left flank. There is fever associated with pain. The patient is a known diabetic. On examination patient had left flank tenderness. A provisional diagnosis of acute pyelonephritis was made and patient was admitted for further investigation and management. As part of investigation, patient underwent ultrasound and Contrast enhanced CT of the abdomen and pelvis. Ultrasound showed enlarged left kidney and loss of left renal corticomedullary differentiation. The left ureter at the point of insertion demonstrated papillary projection into the bladder. CT showed increased size of left kidney and perinephric stranding in keeping with pyelonephritis. However, at the left vesicoureteric junction a small projection is seen protruding into the bladder. The features are not classic for an ureterocele where there is a cystic club shaped projection into bladder. The diagnosis of left pseudo ureterocele with pyelonephritis was made and the patient was further managed [Fig.1].

### **Discussion:**

Pseudoureterocele is defined as dilatation of the intravesical ureter in response to contiguous disease.[5] The wall of the pseudoureterocele is thick and irregular. On intravenous urography, appearance of the radiolucent wall surrounding the dilated distal ureteral segment is an important differentiating point between an ureterocele and a pseudoureterocele. The lucency or halo surrounding a pseudoureterocele is thicker than that of an ureterocele and is poorly defined [6]. Causes of pseudoureteroceles include radiolucent calculus, bullous oedema of trigone, Mullerian duct cyst, steinstrasse following shock wave lithotripsy, an ectopic ureter, and infiltrative

tumour [5, 6]. Imaging features on intravenous pyelography (IVP) and Ultrasound allows differentiation of Pseudoureterocele from ureterocele in most situations, though cystoscopy would be required for confirmation.

The ‘pseudoureterocele’ may lie dormant for many years and often presents with acute urinary incontinence and or onset of urinary tract infections. Datta et al., [7] first introduce the term pseudoureterocele in describing three examples of a impacted distal ureteral calculus appearing radio graphically as a simple udreterocele. Additional case reports have included stricture of the ureteral orifice after transurethral resection of the prostate [8], post ureteral catheterization [9], infiltrating transitional cell carcinoma of the bladder [10], and pheochromocytoma arising from the ureteral wall [11]. This report adds squamous cell carcinoma of the cervix and radiation cystitis to the list of possible etiologies of pseudoureterocele. Our report also supports the recent reports of the pseudoureterocels in that the halo sign and associated upper tract dilatation.

It is also important to note that although the cobra head sign is classic for an intravesical ureterocele, only about 50% of cases show this sign [12]. This is explained by findings on cystoscopic images that demonstrate the ureterocele as a structure that changes size and shape, depending on its degree of contrast material filling.

Ultrasonography may demonstrate the wall of the ureterocele projecting into the lumen of the bladder. In questionable cases, cystoscopy may be helpful to rule out a bladder tumor that has formed a pseudoureterocele. However, causes of pseudoureterocele, such as a tumor or calculus, need to be ruled out on the basis of the appearance of the surrounding radiolucent halo.

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**Fig. 1: A bulbous asymmetric dilatation of distal ureter (arrows).**

