

The Painful Pause: A Case of Right Distal Ureteric Calculus with Hydroureteronephrosis

Shaik Ontela Masood¹, Vemareddy Ahindra Reddy², Guntennagari Supriya³, Pennakanti Durga⁴, Sane Jyothirmai⁵

¹Departement of Pharmacy practice, Santhiram college of pharmacy, Nandyal, Andhra Pradesh, India
^{1,2,3,4,5}Clerkship Student, Department of Pharmacy practice, Santhiram college of pharmacy, Andhra Pradesh

Abstract

Typically, ureteric stones are tiny and symptomatic. Research has shown that the distal ureter is where ruptured stones are most frequently found. A 45-year-old man is depicted as an example of hydroureteronephrosis with a right ureteric calculus and mild symptoms. Following CT-KUB imaging, a 7.6x6 mm ureteric calculus was linked to a mild to severe hydroureteronephrosis calculus measuring 3-5 mm in the midpole.

Keywords: Hydroureteronephrosis, CT-KUB

Introduction

The prevalence of ureteric stone disease is rising, particularly in developed nations. It manifests at different ages and in diverse ways, and there are numerous treatment options and potential consequences. Large, asymptomatic stones may be associated with completely distracted kidneys¹.ureteric stones often have a tiny size and can pass on their own, depending on their size. On the other hand, stones weighing more than 0.1 g and with a diameter of more than 1 cm are less likely to pass naturally². An impacted calculus may eventually develop an oblong form and continue to grow in its longitudinal diameter rather than its transverse dimension. Twenty percent of urinary stones are ureteric stones³,among these 70% located in distal ureter⁴. Roughly 12% of men and 7% of women will develop ureteric calculi throughout their lives. This is a rather high lifetime prevalence. A positive family history and a prior history of ureteric calculi enhance the risk. With a peak incidence between the ages of 35 and 45, the majority of patients appear between the ages of 30 and 60.

Case presentation

A 45-year-old male patient was admitted by the hospital's urology department. The patient reported weak urine flow, burning during urination, vomiting afterward, and right groin pain for four days. The patient had surgery for renal calculi two years prior and a s/p disectomy fourteen years prior. The doctor advised a complete urine examination, a CT-KUB plain, and serum creatinine. A CT-KUB plain impression revealed the location of the right vuj calculus, which results in mild to severe hydroureteronephrosis, minor bladder wall thickening, and bilateral renal calculi. Serum creatinine levels were elevated. Among the other lab tests performed were a full blood picture, a 2-D echo, a complete urine examination, and viral markers.

Table 1: Lab investigations showing abnormal values

Urine Examination	
Serum creatinine	1.44
Complete Blood Picture	
Lymphocytes	23
Eosinophils	06

Treatment

The plan of care for this patient includes right URSL [ureteroscopic lithiotripsy] with DJ stenting. It is a surgical procedure with minimal invasion that combines ureteroscopic stone localization and removal with double-j stent placement to treat stones. The patient was prescribed medications such as inj.taxim 1 gm iv bd, inj.paracip 1 gm iv bd, T.dolo 650 mg sos, T.pan 40 mg od, T.emecet 4 mg sos, T.veltam 0.4mg. physician advised postoperative investigations in which CT-KUB plain impressions showed normal postoperative status.

Discussion

Urine drainage is impaired as a result of the blockage these stones cause, which results in hydronephrosis. The most trustworthy technique for diagnosing urinary stones is CT-KUB PLAIN. The patient in this instance had calculi (ureteric stones) ranging in size from 7.6×6 mm at the right vesicoureteric junction, which caused severe hydronephrosis. The preferred procedure for the safe and effective treatment of ureteral stone removal is ureteroscopic lithiotripsy⁵. The patient complained of a weak urine stream; thus, a double J stent invasion treatment was performed. Urine is helped to move from the kidneys to the ureter by this process. The bladder was filled with a 14FR FOLEYS catheter to drain pee. The patient received post-operative medicine, and at the time of discharge, the patient was normal.

Conclusion

Right Distal Ureteric Calculus with Hydronephrosis is a condition which causes intense stomach or groin pain with decreased urine flow associated with burning micturition, which is treated and managed by URSL [ureteroscopic Lithiotripsy], which is a minimally invasive procedure to remove kidney stones with high precision laser where stones are immune to medicines and other surgical procedures.

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