

## Case Report

# Giant left ureteric stone

Vikash Lal\*, Sandesh Deolekar, Sangram Karandikar, Lokesh Sreedharan

Department of General Surgery, Padmashree Dr. D.Y. Patil Medical College, Nerul, Navi Mumbai, Maharashtra, India

**Received:** 7 November 2014

**Accepted:** 8 December 2014

**\*Correspondence:**

Dr. Vikash Lal,

E-mail: vikash.lal9@gmail.com

**Copyright:** © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

### ABSTRACT

A 24 year old male presented with acute pain in left loin with burning micturition, investigation revealed minimal functioning of left kidney with left hydronephrosis and hydroureter and a giant ureteric calculus. He underwent open ureterolithotomy. A giant ureteric calculus measuring 10.5 cm and weighing 49 gm was retrieved from the left ureter post-operative recovery was eventful and was discharged after 10 days.

**Keywords:** Ureteric calculi, Largest stone, Ureteric stone, Upper ureter stone, Giant stone

### INTRODUCTION

There is high prevalence of renal tract calculi in India, as this country is located in the “stone belt”. A ureteral stone is a kidney stone that passes down into the ureter. The likelihood of spontaneous passage of ureteral stone is related to both stone size and location. Therefore most of the small ureteral stones pass spontaneously.

However, stones larger than 1cm in diameter and weighing more than 0.1 gram are less likely to be passed<sup>1</sup>. Larger stones are lodged usually in the lower narrower part of the ureter. After the stone has resided in the ureter for some time, the longitudinal diameter becomes greater than the transverse diameter resulting in an elongated shape<sup>2</sup>. In general, ureteral calculus is single and less than 2 cm in length. Occasionally, ureteral stones are multiple and can be as large as 5 cm in size. Ureteral weighing more than 50 gm in weight and about 10 cm in length is called as giant calculus<sup>3</sup>.

We herein report a case of a giant ureteric stone in L. Dr. D Y Patil Medical College Nerul Navi Mumbai I dept. of general surgery.

### CASE REPORT

A 24 year old male presented with acute pain in left loin with burning micturition and pain radiating from loin to groin, pain is dull in nature, he had similar complain in the past since 5 year and had taken treatment from private practitioner in the form of pain killer and the pain used to subside. The physical examination reveals mild tenderness in the left lumbar region. On urine analysis no significant abnormality detected. Renal function test were normal abdominal ultrasonography revealed normal right kidney while left kidney was grossly hydronephrotic with hydroureter secondary to a giant stone in the lower ureter. An X-ray Kidney, Ureter and Bladder (KUB) showed a big ureteric stone in the left lower ureter as shown in Figure 1. On CT intravenous urography, there was good excretion of contrast from the right kidney but left kidney shows large linear calculus in the left ureter. It is associated with mild wall thickening of the ureter. Gross hydronephrosis on left side with thinning of the renal parenchyma with delayed excretion of the contrast on the left side the maximum parenchymal thickness measures 4 mm. Tc99 DTPA Renal scan revealed total GFR of 60.25 ml/min. Left kidney had poor function with GFR of 8.66 ml while contralateral kidney had good function and

GFR of 51.59 ml. He underwent open ureterolithomy. A giant ureteric stone of a 10.5 cm was removed as shown in Figure 2 weighing in Dr. D Y Patil hospital Nerul Navi Mumbai.



**Figure 1: An X-ray KUB showing giant ureteric stone in lower left ureter.**



**Figure 2: Photograph of a giant ureteric stone.**

## DISCUSSION

A ureteric stone recently expelled from the kidney is usually round or ovoid and as it descends, it becomes date shaped. Stone that lodges in the ureter, may cause acute or dull pain, obstruction and sometimes fever. Sometimes it may even remain asymptomatic. Usually

severe colicky pain prompts the person to seek medical help. Prolonged obstruction leads to atrophy of renal parenchyma and functionless and destroyed renal unit above the ureteric calculus. Although giant ureteral stone may form in patients with normal ureteral anatomy, many authors have reported that giant ureteral calculi form in patients with congenital ureteral anomalies.<sup>1,2</sup> The largest ureteric stone reported in India 8.5 cm by Dr. Naveen Agarwal Bareilly.

Diagnosis is by X-rays, ultrasonography or I CT IVP scan. In general, treatment depends upon site and size of ureteral stones. Extracorporeal Shock Wave Lithotripsy (ESWL), ureteroscopic removal and open surgery are the commonly employed modalities of treatment. Of these, open surgery is the most invasive form of treatment and is usually reserved for complicated and difficult cases.

Most ureteral stones are small and can be dealt with easily by conventional treatment. Giant ureteral stones pose a therapeutic problem and treatment has to be individualized considering the age, associated congenital anomalies, function of ipsilateral renal unit and any comorbidities.

Our patient had dullache pain and burning micturition with no previous history of diagnosed renal stone

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: Not required*

## REFERENCES

1. Erolglu M, Unsal A, Cimentepe E, Bakirtas H. Giant ureteral stone associated with partial ureteral duplication. Int Urol Nephrol. 2003;35(4):485-7.
2. Delakus D, Daskalopoulos G, Karyotis I, Metaxari M, Cranidis A. Giant ureteral stone in association with primary megaureter presenting as an acute abdomen. Eur J Radiol. 2002;41(2):170-2.

DOI: 10.5455/2320-6012.ijrms20150162

**Cite this article as:** Lal V, Deolekar S, Karandikar S, Sreedharan L. Giant left ureteric stone. Int J Res Med Sci 2015;3:325-6.