CASE REPORT

Unilateral Incomplete Double Ureter At NMCTH

P Bhatta*[1], R Bastola[1], P Gurung[2], M Gyawali[3]

[1] Department of General Surgery, National Medical College, Birgunj, Nepal
[2] Government District Hospital, Bharatpur, Nepal
[3] Life Line Hospital, Jhapa, Nepal

Date of Submission : March 05, 2018
Received in Revised Form : March 22, 2018
Date of Acceptance : April 06, 2018
Date of Publishing : July 30, 2018

ABSTRACT

The anomalies associated to the duplications of ureter and kidneys result from an early division of ureteric diverticulum. Duplex collecting system is presence of two pylocaliceal system which is associated with single or double ureter. Bifid ureter is one of the variations related to congenital anomalies of urinary system which are often an incidental finding. Surgeons performing surgeries in pelvic region should be aware of such anomalies remain asymptomatic, incidentally found, sometimes present with pyelonephritis / calculi.

Keywords: Bifid Ureter, Duplex Ureter, malformation, rare anamolies of kidney & Ureter

***Corresponding Author:** Dr. P Bhatta, Department of General Surgery, NMC, Birgunj, Nepal, Email: pasupati_bhatta@yahoo.com

INTRODUCTION

Ureter is a long tubular structure extending from renal pelvis to urinary bladder measuring 25-30 cm. superiorly it is continuous with funnel shaped structure called renal pelvis through which it communicates with secreting part of kidney. Inferiorly it opens into the lateral angle of the base of the urinary bladder. Incomplete duplication of ureter is known as bifid ureter. Cases of Familial double or bifid ureters have been reported in the past even though it is a rare occurrence. It is an autosomal dominant condition.[1] The occurrence of incomplete duplication is three times more common than complete duplication, with a frequency of one in 500 individuals.[2] The present report is a case of unilateral incomplete double ureter of the left side with Calculus at left vesico-ureteric junction.

CASE REPORT

Here, we present a case with a unilateral bifid ureter at left side. This female patient aged 40 years, presented with pain left lower abdomen at Uro-OPD of National Medical College and teaching hospital and on sonography it showed calculus in the left vesico-uretic junction with mild hydronephrosis. X-Ray KUB showed radio-opaque shadow at left VUJ as shown in Fig 1 and all other basic routine investigations were within normal limit. After pre anaesthetic checkup case posted for URS + ICPL, After fragmenting the stone at left VUJ region as shown in Fig 3 ureterescope was negotiated towards renal pelvis , two different opening were present at the midway, (Fig 2: showing two different opening) both tract leading to renal pelvis. DJ was not placed. Post operative IVU was done to confirm duplex collecting system, the left system showed normal excretion of contrast. We do not keep DJ in this case. However in literatures, it was shown other anamolies association with duplex collecting system. In our case it was only things we found is duplex incomplete collecting system.

DISCUSSION

Ureter starts developing from the ureteric bud in 5th week of intrauterine life as a diverticulum from dorsomedial side of the mesonephric duct. It grows upwards towards metanephric tissue. The

ureteric bud bifurcates when it comes in contact with the metanephric blastema, induced by glial cell line derived neurotrophic factor (GDNF). Double ureters may remain asymptomatic for the whole life of a person, partial duplication is usually diagnosed in adults and most of the cases present with hydronephrosis and recurrent urinary tract infection[2]. Bifid ureter has also been reported in association with complete duplication of the contra lateral ureter.[3] Duplex ureters if undiagnosed pre or preoperatively can get injured during gynecological surgeries.[4,5] Literature suggests that the occurrence of an incompletely duplicated ureter is more common in females and that too on the right side, which is not similar to the present case so came to rarer varieties i.e. our case has left side abnormalities.[6]

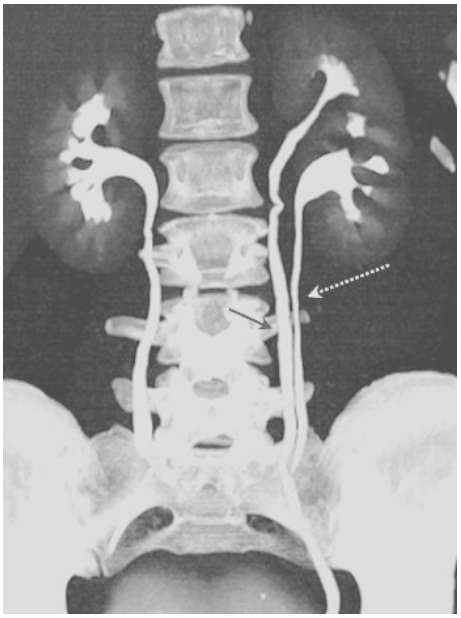

Fig 1 : Showing CTU 14 POD

Fig 2: Showing Ureterescopic View double lumen

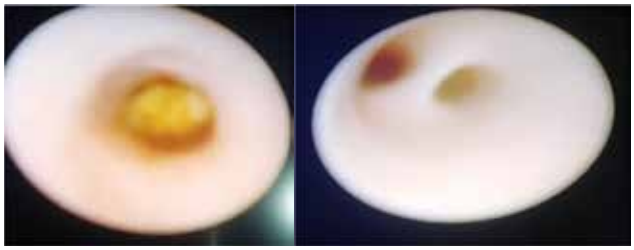

Fig 3: Showing calculi at distal Ureter on left side and double lumen

CONCLUSION

The anomalies pertaining to the duplications of the ureter and kidneys result from an early division of ureteric diverticulum. The extent of duplication depends on level of the division of the ureteric diverticulum and metanephric blastema. The variation reported in our case could be due to incomplete division of left ureteric bud in the cranial part. In pelvic surgery surgeons should be aware of such anomalies which has incidence of about 10% and duplication is one of the commonest anomalies of upper urinary tract.

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