

## Case of Left non functioning kidney

### -: Case summary:-

- **Complain:** - Recurrent Urinary tract Infection  
Pyuria, Fever occasionally  
Burning micturition
- **INVESTIGATION:-** Pre Operative File  
X-RAY(KUB): NAD  
USG(KUB): Post Void Residual :60cc
- **USG:** - Post void residual: 82cc
- **IVP Shows:** Moderate dilatation of left PC System
- **DMSA Scan shows :** Reduced Cortical function of left  
Kidney that is 15%
- **MCU :-** Bladder Diverticulum along the left lateral wall  
Otherwise NAD
- **DIAGNOSIS :-** UTI, Pyelonephritis, Renal Calculus  
Cystitis
- **FINAL DIAGNOSIS:** LEFT NON FUNCTIONING KIDNEY  
AND DIVERTICULUM
- **Operative Note:** General Anesthesia was given.  
Lateral Position was given,Pneumoperitonium was  
Created.  
Colon mobilization, Ureter Identified.  
Pedical dissected.  
Artery first & vein dissected, hemoclip applied and  
Vessels cut.  
Kidney is separated from surrounding structure.  
Wash given, Specimen removed from flank incision.  
There was a diverticulum arising from left lateral  
Wall of bladder and ureter was entering it.  
Diverticulotomy was done and bladder was closed  
With 2.0 vycril.  
Drain kept & wound closed, Specimen sent for  
Biopsy.

**MCU Report :-**

CONTRAST INJECTED THROUGH CATHETER IN TO BLADDER UNDER ASEPTIC PRECAUTION. ]

BLADDER CONTOUR APPEAR NORMAL, DIVERTICULUM SEEN ALONG THE LEFT LATERAL WALL.

NO FILLING DEFECT OR IRREGULARITY SEEN.

NO VESICO-URETERIC REFLUX SEEN.

URETHRA APPEAR NORMAL, NO STRICTURE OR DILATATION SEEN.

---



## DMSA Report :-

**INVESTIGATION DONE: Tc99m DMSA Renal Scan.**

**TECHNIQUE:**

After I.V administration of 3 mCi of Tc99m DMSA static images of the kidneys were obtained in anterior, posterior, RPO and LPO views at 2 hrs post injection.

**FINDINGS: -**

**Right Kidney: -** Appears normal in shape, size and placement. It shows good and uniform cortical tracer concentration. The cortical margins appear smooth & uniform.

**Left Kidney: -** Appears small in size. It shows reduced and heterogeneous cortical tracer concentration. Cold areas seen involving both the poles and lateral margin.

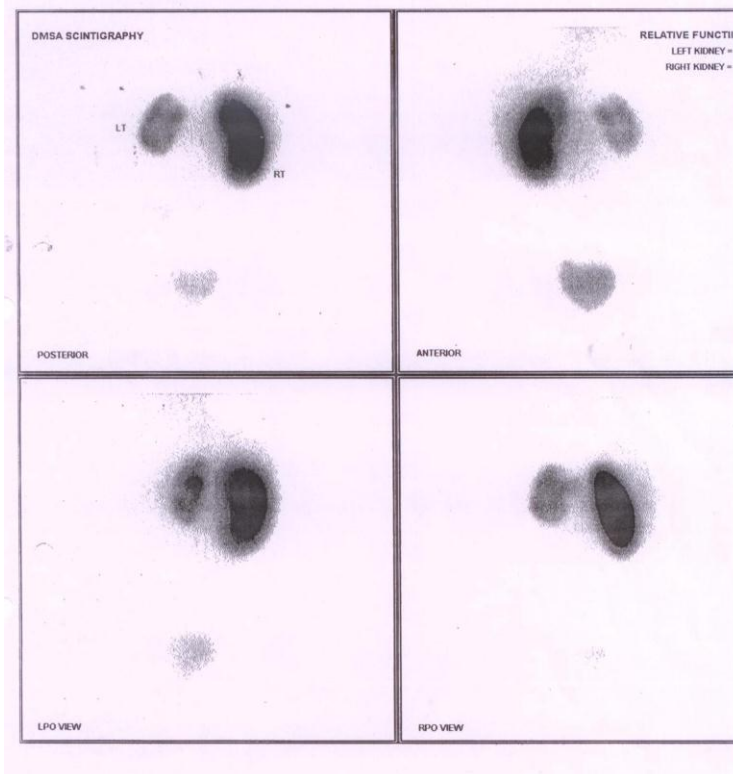
**Quantitative Parameter**

Relative Function: -	Left Kidney	Right Kidney
	15%	85%

**COMMENTS: -**

**LEFT KIDNEY: Reduced cortical function with areas of scarring.**

**RIGHT KIDNEY: Good cortical function with no evidence of scarring.**



## USG :-

### USG ABDOMEN :-

Liver is normal in size and echogenicity. No evidence of any focal lesion. Portal vein is normal in size. No evidence of dilatation of intrahepatic biliary radicles or portal radicles.

Gall bladder is normally distended. No evidence of stone. Gall bladder wall thickness appears normal. CBD is normal in size. No evidence of stone in CBD.  
Pancreas is normal in size and echogenicity.

Spleen is normal in size and echogenicity. No evidence of any focal lesion. Splenic vein is normal in size. No evidence of varices at splenic hilum. No evidence of mass at splenic hilum.

RT. Kidney is 102x42 mm in size, Lt. Kidney is 71x32 mm in size, No evidence of stone in rt. Kidney, dilatation of lt. P.C. system and ureter. Cortical thickness & echo appears normal.

Urinary bladder is normally distended and 27 mm diverticulum noted on lt. Lateral wall.  
Postvoid urine is 82 cc.

No evidence of any abdomino-pelvic mass.  
No evidence of free fluid in peritoneal cavity **at present**.  
No evidence of upper paraaortic or pelvic lymphadenopathy is seen.

### IMPRESSION:-

Small left kidney,  
Left side hydronephrosis & hydroureter? vesicoureteric reflux,  
Bladder diverticulum

## CT IVP:-

### IVP & MCU EXAMINATION :-

#### Plain x-ray KUB:

No definite e/o radiopaque calculus seen.  
Visualised bones appear normal.

IVP & MCU: is done by injecting 40 ml of contrast after negative dose.  
Bilateral prompt excretion of contrast is seen.

Rt. kidney appear enlarged in size, Lt. Kidney is small in size.

RT. P.C. system appear normal, Moderate dilatation of Lt. PC system & ureter.

Rt. ureter appear normal in course & calibre, dilated left ureter with gross dilatation of lower end.

Bladder is filled normally with bladder diverticulum noted.

Posterior urethra appear normal.

### IMPRESSION :

Moderate dilatation of Lt. PC system & ureter, p/o megaureter,  
Small left kidney with compensatory hypertrophy of right kidney,  
Bladder diverticulum