

## LEFT PUJ OBSTRUCTION WITH HORSE SHOE KIDNEY

A Male patient Age: 22 yrs

- COMPLAIN : LEFT RENAL ANGLE PAIN SINCE 1 YEARS  
RIGHT RENAL ANGLE PAIN SINCE 1 WEEK  
NO H/O BURNING MICTURITION  
NO H/O NAUSIA AND VOMITING  
NO H/O FEVER  
NO H/O HEAMATURIA  
NO H/O DM/HTN/THYROID  
H/O HYDROCELECTOMY BEFORE 10 MONTHS
- DIAGNOSIS :LEFT PUJ OBSTRUCTION WITH HORSE SHOE  
KIDNEY
- ADVISED :-PRE OP. MINOR  
APTT  
C.T IVP
- IVP REPORT:-HORSE SHOE KIDNEY WITH PUJ  
OBSTRUCTION ON LEFT SIDE
- DTPA RENAL SCAN:-
  - LEFT KIDNEY:MILDLY IMPAIRED PARENCHYMAL  
FUNCTION AND SLUGGISH CLEARANCE WITH  
SIGNIFICANT PUJ OBSTRUCTION.
  - RT LIDNEY :- NORMAL PARENCHYMAL FUNCTION  
AND CLEARANCE.
- C.T IVP:-MDCT UROGRAPHY REVEALS HORSE SHOE  
KIDNEY WITH PARTIAL PUJ OBSTRUCTION INVOLVING  
LEFT KIDNEY.  
NORMALLY EXCRETING BOTH KIDNEYS.  
NO EVIDENT RENAL OR URETERIC CALCULUS ON  
EITHER SIDE.

## CT IVP:-

### MDCT UROGRAPHY:-

MDCT urography was performed after injection of non-ionic contrast media. Scans were performed at different phase of excretion.

Evidence of malrotated, medially placed both kidneys with fusion of lower poles, anterior to aorta and IVC before bifurcation, suggest horse shoe kidneys.  
Right kidney measures about 9.4 x 3.0 cm.  
Left kidney measures about 10.1 x 3.1 cm.

No evidence of renal or ureteric calculus is seen on either side.  
There is noted normal excretion of contrast with normal nephrogram and cortico-medullogram on either side. No evidence of perinephric collection is noted.  
PC system and ureter appears normal on right side.

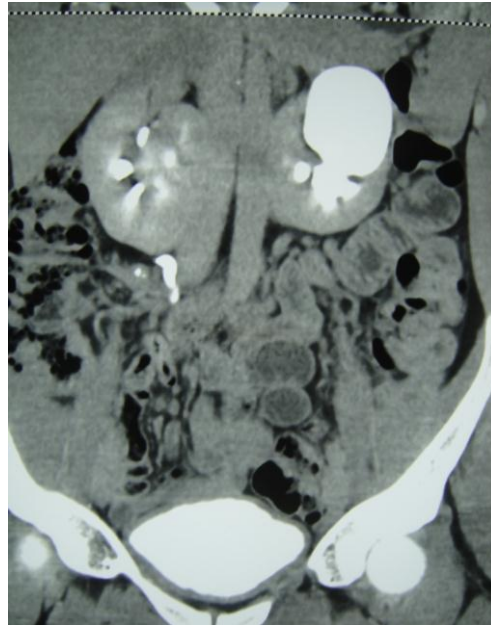
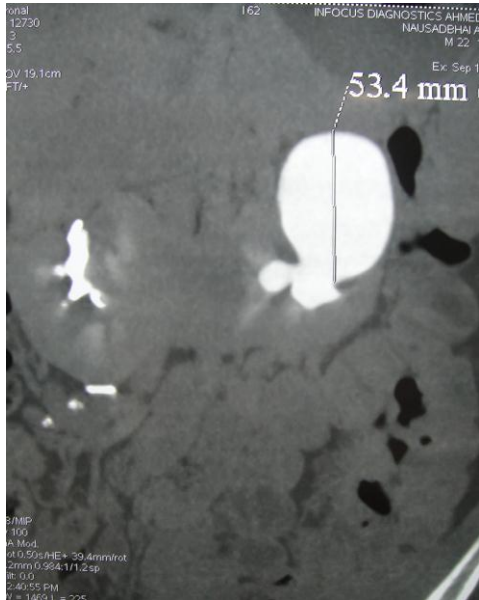
There is noted mild hydronephrosis with ballooning of the extrarenal pelvis on left side with abrupt narrowing at PUJ. Ureter appears nondilated.

Urinary bladder is distended and appears unremarkable.

### CONCLUSION:-

- MDCT urography reveals horse shoe kidney with partial PUJ obstruction involving left kidney.
- Normally excreting both kidneys.
- No evident renal or ureteric calculus on either side.





### IVP REPORT

Plain x-ray KUB shows no radio-opacity.

Visualised spine appears normal.

On injecting IV contrast after negative test dose

Both kidneys show simultaneous excretion of contrast.

On nephrogram the lower pole of both kidneys appear fused in midline at the level of L3 vertebrae suggestive of horse shoe kidney.

On pyelogram both kidney shows mal-rotation with hilum facing antero-medially.

Right sided normal pyelogram with normal ureter.

Left sided moderate to gross hydronephrosis with non-opacification of left ureter by contrast suggestive of PUJ obstruction.

Urinary bladder appears normal.

No evidence of significant post-void residue noted.

### IMPRESSION :

**Horse shoe kidney with PUJ obstruction on left side.**

## DTPA :-

### DYNAMIC SCINTI-RENOGRAPHY

Tracer Used : Tc99m DTPA  
Diuretic Protocol : F+10

**LEFT KIDNEY:** The size, shape and the location of the kidney is normal. The perfusion to the kidney is in concordance to the appearance of the tracer in the abdominal aorta. The cortical tracer uptake is inhomogeneous and normal with mildly impaired parenchymal function. The parenchymal transit time is normal. The collecting system is dilated. Progressive pooling of tracer noted in the PCS of the kidney.

**RIGHT KIDNEY:** The size, shape and the location of the kidney is normal. The perfusion to the kidney is in concordance to the appearance of the tracer in the abdominal aorta. The cortical tracer uptake is homogeneous and normal with normal parenchymal function. The parenchymal transit time is normal. The collecting system is normal. No retention of tracer noted in the PCS of the kidney.

	LEFT KIDNEY	RIGHT KIDNEY
RELATIVE FUNCTION (%)	46	54
ABSOLUTE GFR ( ml/min)	33	39
TOTAL GFR	74 ml/min	

IMPRESSION :

**LEFT KIDNEY: MILDLY IMPAIRED PARENCHYMAL FUNCTION AND SLUGGISH CLEARANCE WITH SIGNIFICANT PUJ OBSTRUCTION.**

**RIGHT KIDNEY: NORMAL PARENCHYMAL FUNCTION AND CLEARANCE.**

