

Left PUJ Obstruction

A 10 yr, Male Child came with retention of urine since 1 day, hypogastric pain

- Investigations: – CBC: Normal
S.creat: Normal
Urine RM: Normal
- USG KUB(14/05/2014): Left kidney gross hydronephrosis
Thickened bladder wall
- Xray KUB(14/05/2014): Normal
- CT IVP(14/05/2014): Left PUJ obstructive changes
Normal excreting both kidneys
- DTPA renal scan (15/05/2014): Moderate hydronephrotic left Kidney with relative function of 46%.Left renogram curve showing Obstructed curve with significant left PCS tracer retention on delayed Images? PUJ obstruction
Right kidney to be normally functioning and non PUJ Obstruction
- Surgical Plan : Laparoscopic Left Pyeloplasty
 - Under G.A. with intubation.
 - Right lateral position with right side up.
 - Pnuemoperitoneum done.
 - Left colon mobilized & kidney and ureter dissected.
 - Left PUJ dissected– dilated pelvis with narrow PUJ formed
 - Pelvis redused and narrow ureter opened and made to normal size.
 - DJ stent kept.
 - Pelviureteric anastomosis done after removing big & soft infected dirty masses from kidney.
 - Anastomosis was done water tight 4-0 vicryl.
 - Drain kept.
 - Port incision closed with appropriate sutures.

CT IVP :-

MDCT UROGRAPHY:-

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

Right kidney is normal in size (7.8 x 3.6 cm), shape, position and excretion. No evidence of renal or ureteric stone is seen. There is noted normal excretion of contrast with normal nephrogram and cortico-medullogram. No evidence of perinephric collection is noted. PC system and ureter appear normal.

Left kidney is enlarged in size (8.4 x 5.4 cm), normal in shape, position and excretion. Evidence of moderate to severe dilatation of intrarenal calyceal system, ballooning of the extra renal pelvis and abrupt narrowing at pelvi-ureteric junction is seen, however smooth passage of excreted contrast through PUJ is noted. Parenchymal thickness appears normal. Ureter appears normal. No evidence of radio-opaque calculus or filling defect is seen.

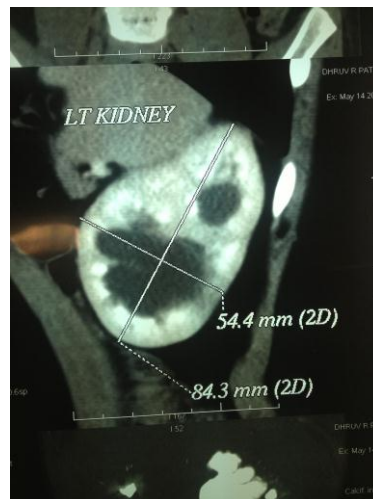
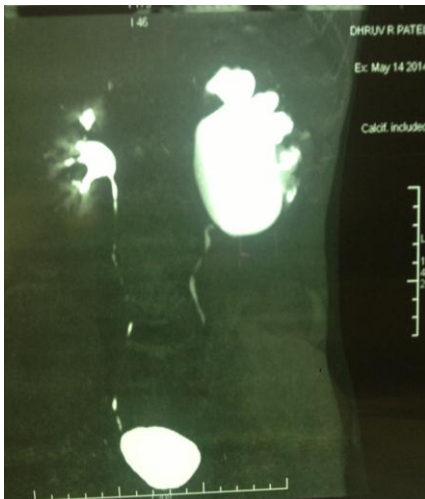
No evidence of renal or ureteric stone is seen. There is noted normal excretion of contrast with normal nephrogram and cortico-medullogram. No evidence of perinephric collection is noted.

Urinary bladder is partially distended with catheter in situ and shows diffuse mild wall thickening.

Minimal free fluid is seen in pelvis.

CONCLUSION:-

- Left sided partial PUJ obstruction with post obstructive changes as described.
- Normally excreting both kidneys.





DTPA :-

F-15 DIURETIC DTPA RENOGRAM

Name:	DHRUV PATEL	Age/Sex:	10YRS/MALE
Ref By:	Dr. DINESH PATEL	Date:	15.05.2014
Id No:	R-129-14		

HISTORY: ? Left PUJ obstruction, for evaluation.

PROTOCOL: 7 mCi of 99m Tc- DTPA (Diethylene Triamine Penta Acetic Acid) was injected IV as a bolus. 0.5 mg / Kg body wt. of inj. Frusemide was given 15 min before the start of the study. Posterior dynamic and static images were obtained using a variable angle dual head Gamma Camera.

FINDINGS:
Left Kidney: Mildly enlarged in size. Perfusion phase images show good perfusion to the kidney. There is moderate to good rim of functioning cortex. There is pooling of tracer in moderately dilated PCS with no significant clearance in end dynamic images. Delayed images show significant PCS tracer retention. Renogram shows obstructed pattern.
Right Kidney: Normal in size. Perfusion phase images show good perfusion to the kidney. There is prompt cortical tracer extraction with normal excretion. No significant PCS tracer retention seen at the end of dynamic study or in delayed images. Renogram shows a non-obstructed pattern.

QUANTITATIVE PARAMETERS:

	Lt. Kidney	Rt. Kidney
Relative function (%)	46	54
GFR (ml/min)	33	39
TTP (min)	Normal	Normal
T 1/2 (min)	Prolonged	Normal

IMPRESSION:

- MODERATELY HYDRONEPHROTIC LEFT KIDNEY WITH RELATIVE FUNCTION OF 46%.
- LEFT RENOGRAM CURVE SHOWING OBSTRUCTED CURVE WITH SIGNIFICANT LEFT PCS TRACER RETENTION ON DELAYED IMAGES - ? PUJ OBSTRUCTED.
- RIGHT KIDNEY TO BE NORMALLY FUNCTIONING & PUJ NON-OBSTRUCTED.

