Coexistence of UPJ Obstruction with Reflux: A Urologist's Puzzle

LOURDES HOSPITAL

Nisarg Mehta, Devesh Bansal, Manas Babu, Ranjeet Rathore, Biju Pillai, H Krishnamoorthy.

Department of Urology, Lourdes Hospital, Cochin

INTRODUCTION

Obstruction at the ureteropelvic junction is the most common problem of the upper urinary tract in children. It occurs with all degrees of severity and is bilateral about a third of the time. Vesicoureteral reflux is the most common abnormal condition of the child's lower urinary tract. It too occurs with all degrees of severity, and the milder degrees of reflux tend to resolve spontaneously. Therefore, it should not be surprising that these conditions sometimes coexist in the same patient. Any degree of one can coexist with any degree of the other, and this often complicates interpretation of the urograms.

CASE REPORT

We present a case of 3 month old baby with Antenatally detected Bilateral HUN. The child was voiding normally and had normal Renal functions 1 week post delivery. She developed severe urosepsis, lethargy and electrolye imbalances at 1 month of age and was on ventilator for 5 days. She was evaluated by us after she recovered and underwent MCUG, DTPA and IVU. She underwent Bilateral Pyeloplasty for Bilateral UPJO in one sitting and was on follow up for VUR. After one 1 year of surgery she lost follow-up.

DISCUSSION

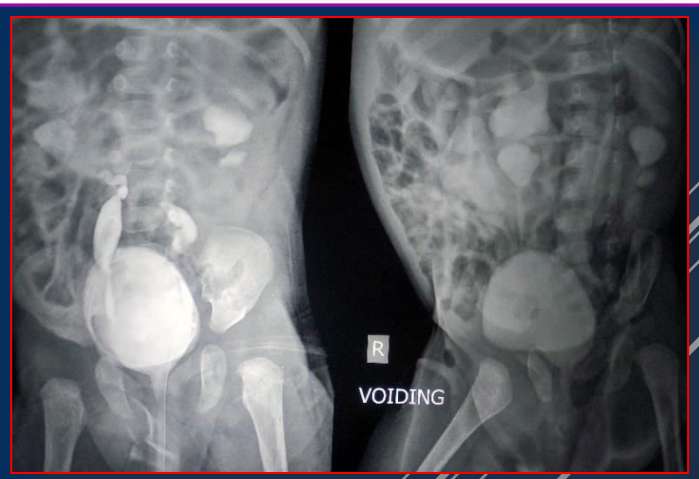
UPJO with associated VUR can be of two types

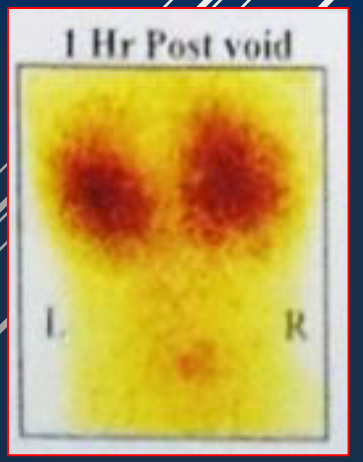
- Two independent conditions
- Secondary UPJO due to reflux (due to kinking/tortuosity of ureter at UPJ, complicated by fixation from inflammatory adhesions)

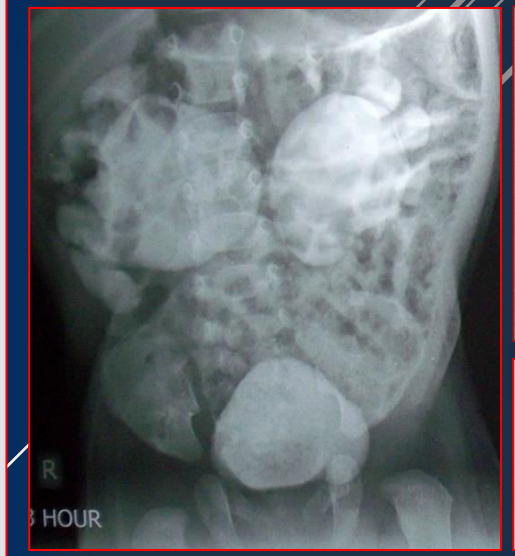
Problems: Mild reflux into an already dilated PCS leads to overestimation of VUR. Ureter distal to UPJ will be more dilated than usual for the degree of reflux due to the obstruction to the reflux wave. If nephrostomy is placed for temporary drainage, all of the urine from both kidneys will temporarily exit via the tube. The drainage will not stop, unless a catheter is placed.

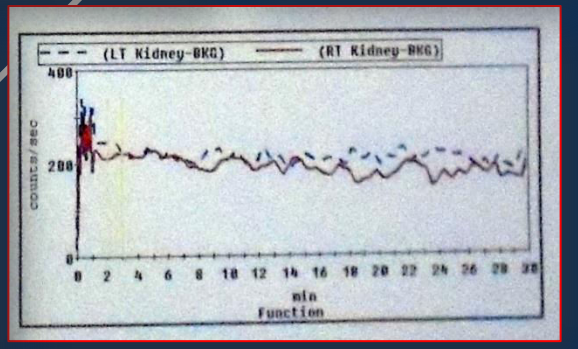
Treatment: Since the obstruction is the more 'fixed' of the two conditions and likely to worsen, preference should be given to UPJO. As the rate of flow of urine down the ureter increases after pyeloplasty, the reflux may disappear spontaneously more rapidly than expected. Temporary post op obstruction at the lower end of ureter due to edema may make the UPJ obstruction acutely worse and may necessitate emergency intervention. The converse, significant acute severe worsening of reflux after pyeloplasty does not occur

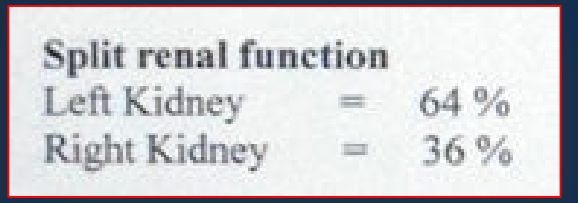
Subcritical obstruction at UPJ can sometimes worsen after antireflux surgery due to unknown reasons. If both conditions are severe, correction of both maybe done in one sitting.











CONCLUSION

Either condition is a common cause of urinary tract obstruction in children. Their coexistence is unusual and makes the diagnosis challenging. Although making simultaneous diagnoses often is not possible, the second obstruction can be recognized on a routine postoperative Uroradiological examination.

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