

A 17-Year-old Boy with Urinary Retention

A 17-year-old boy was admitted with a complaint of urinary retention. He had history of recurrent urinary tract infection, neurogenic bladder, and grade 5 vesicoureteral reflux (VUR). He had received anti-reflux surgery. Physical examination was normal. Laboratory investigations showed an increase in serum creatinine level. Urinary analysis was normal. Biochemistry lab tests and blood pressure were also in normal range for age.

In the last voiding cystourethrogram (VCUG), VUR was not detected and urinary bladder was observed in vertical position and with irregular border.

What is your diagnosis?



Figure 1. Patient's last VCUG.

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As shown in Figure 2, the following findings were evident in this patient:

- Severe hydroureteronephrosis in the left kidney
- Stenosis in the distal of ureter (UVJO) and delay in the secretion of pyelocaliceal system to the ureter, suggestive for UPJO
- Parenchymal loss in the left kidney

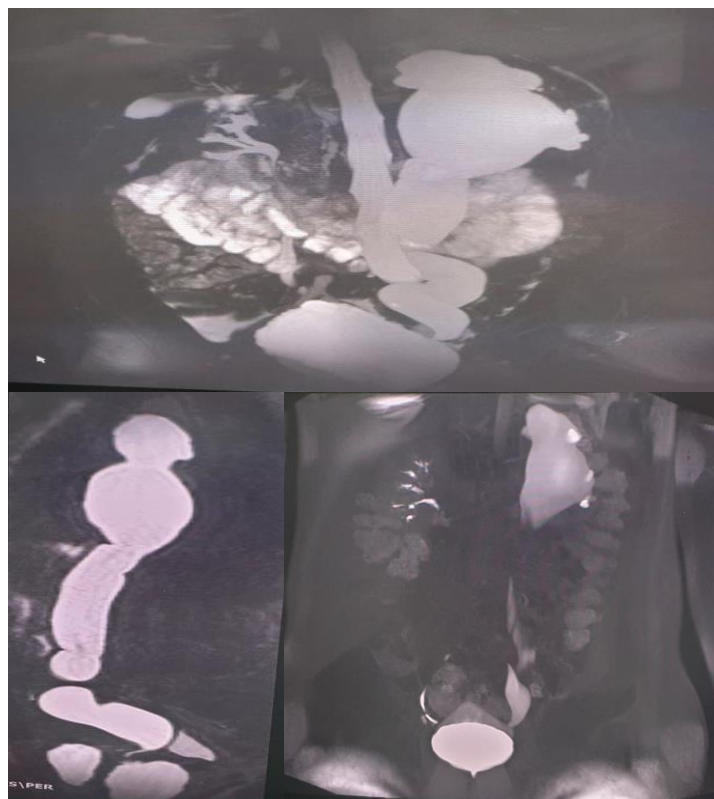


Figure 2. Magnetic resonance urography (MRU) of the index patient.

UPJO is the most common cause of prenatal hydronephrosis. UPJO is more common in left side. UPJO is associated with VUR, flank pain, abdominal discomfort, and intermittent obstruction of the urinary tract (1).

UVJO is characterized by an obstruction at the distal end of the ureter and results in megaureter. UVJO is less common than UPJO. It is a rare cause of hydronephrosis. UVJO is seen more often in boy and left sided involvement is more frequent. Most UVJO cases are detected prenatally. UTI is a frequent clinical presentation of UVJO (2).

References

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2. Arlen AM, Merriman LS, Kirsch JM et al. Early effect of American academy of pediatrics UTI guidelines on radiographic imaging and diagnosis of vesicoureteral reflux in the emergency room setting. *J Urol.* 2015;193(5 Suppl):1760–5.