

## URETEROPELVIC JUNCTION OBSTRUCTION (UPJO) PRESENTED AS HEMATURIA.

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### ABSTRACT

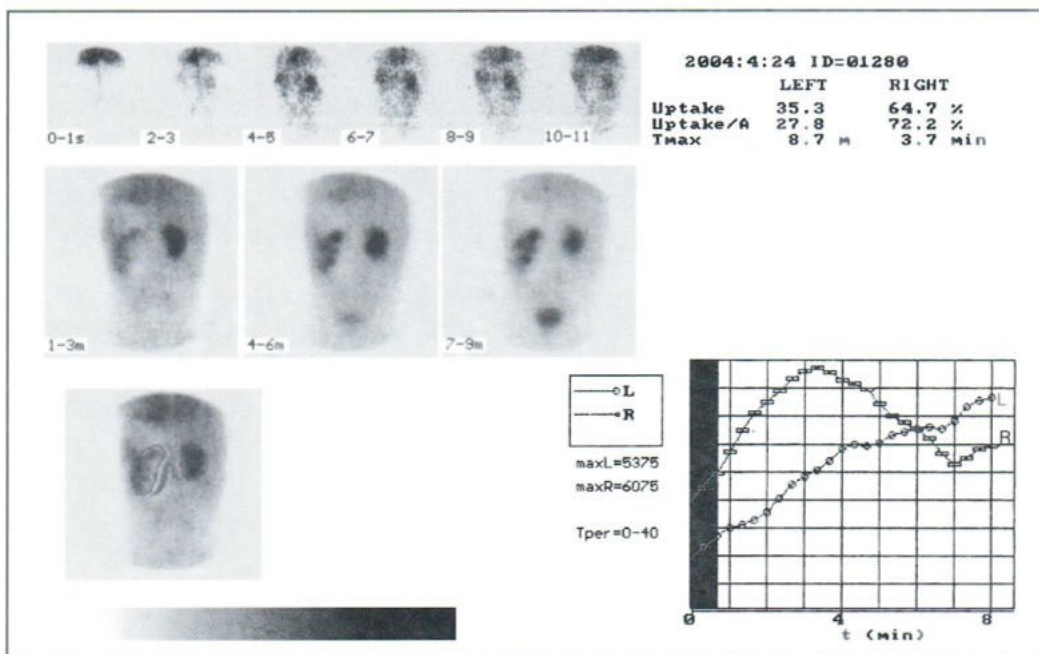
A boy of 7 years presented with hematuria following a trivial trauma (fall on floor). On clinical examination, a small mass was palpable in the left loin, which was correlated to be the hydronephrotic left kidney (7x11cm in size) on ultrasonography (USG). Radionuclide renogram under computerized gamma camera (Siemens, Germany) using Tc99 DTPA showed normally functioning right kidney and left renal obstruction (Fig.1). Pyeloplasty was advised.

**KEY WORDS:** Kidney, ultrasonography, and renogram.

### INTRODUCTION

Congenital narrowing at the junction of the ureter and the renal pelvis is a common developmental variant that may impede the flow of urine, causing distention of the renal pelvis as well as the major and minor calyces (hydronephrosis). In many

cases, it is difficult to differentiate between this harmless anomaly and significant, pathologic urinary tract obstruction. Congenital ureteropelvic junction (UPJ) obstruction is suggested if calyceal dilation is minimal, kidney size is normal, and renal parenchy-



**Fig 1** Left renal obstruction (DTPA Renogram)

mal thickness is normal. Moderate or severe urinary tract distention and parenchymal thinning suggest significant obstructive uropathy and are not features of innocuous UPJ narrowing.<sup>1</sup> Ultrasound cannot assess renal function.<sup>2</sup> Individual kidney function is important for surgical planning and can be determined by renal radiouclide scans.<sup>3</sup>

## DISCUSSION

Sonography of UPJ obstruction shows a large cystic mass within the kidney. There are multiple hypoechoic cystic spaces, with the largest being medial in location and representing the dilated renal pelvis. The cysts intercommunicate and infundibulae and calyces as well as renal parenchyma are identified. IVU shows delayed excretion of contrast medium, which is diluted by retained urine within the large renal pelvis. Renogram with technitium 99 metastable diethylene triamine pentaacetic acid (Tc99m DTPA) shows a photon-deficient area due to the dilated renal collecting system; there is central

migration of isotope into the renal pelvis on delayed images. If renal function is markedly decreased, renogram will be helpful in identifying the amount of functioning renal parenchyma.<sup>4</sup>

## REFERENCES

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