Ureteral Fibroepithelial Polyp Associated with Ureteropelvic Junction Obstruction in a Child

Ureteral fibroepithelial polyp is an unusual benign tumor of a mesodermal origin. It is very rare in infants and children, and the majority of them, excluding ones secondary to chronic irritation, were presented as a single disease without associated lesion. We report a case of multiple ureteral fibroepithelial polyps associated with ureteropelvic junction obstruction in a 5 year-old boy. *(JKMS 1997;12:477~9)*

Key Words : *Ureter; Fibroepithelial polyp; UPJ obstruction; Child*

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INTRODUCTION

Primary ureteral tumors are not common, 1% of all tumors of the upper urinary tract, and benign tumors are only a small portion of them (1, 2). Among ureteral neoplasms 80% were malignant and 20% were benign (3). In a review of the literature by Macksood et al. (4) there were only 14 cases of benign ureteral polyps in children, including 11 fibroepithelioma, 2 vascular, and 1 hamartoma.

The main symptoms of the ureteral fibroepithelial polyp are renal colic and hematuria, gross or microscopic. These days, ultrasonography is usually performed as the first radiological diagnostic modality for renal problems, especially in children. However, small lesion especially occurred at or near the stricture site is apt to be missed by ultrasonogram and interpreted just as a hydronephrosis due to ureteropelvic junction (UPJ) obstruction even though this is operator dependent. Although there are suggested etiologies of this polyp such as congenital, irritation, infection or hormonal imbalances, nothing is clear yet. Our case would be the first report of multiple polyps associated with a congenital UPJ obstruction in a child.

CASE

A 5-year-old boy was admitted to our department because of a recurrent left flank colic and gross hematuria. Five months before admission he had visited a private clinic with same symptoms and an excretory urogram was done. On admission, he complained of left CVA tenderness. Urine revealed many RBC/HPF and 2-3 WBC/HPF. There was no growing microorganism in the urine. Abdominal ultrasonogram showed hydronephrosis in the left kidney. Diuretic renogram showed an obstructive pattern in the left kidney (Fig. 1). In a review of the previous excretory urogram, there was a round and well demarcated filling defect in the dilated ureter above the stricture site (Fig. 2). The ureter bearing polys and stricture was resected in en bloc and an end-to-end reanastomosis of the ureters was performed. There were 3 polyps, a short and thick one in the dilated ureter and two thin and long ones in the obstructive portion (Fig. 3).

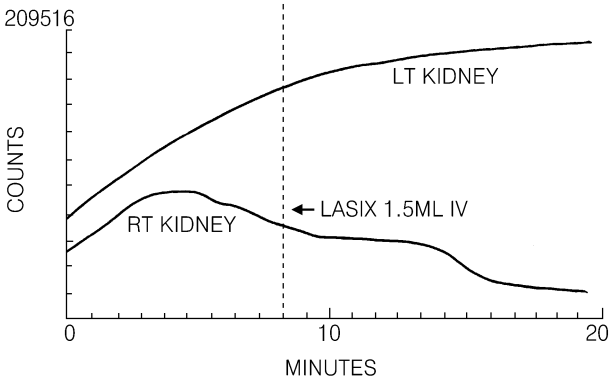

Fig. 1. Diuretic renogram shows obstructive pattern in left kidney with no response to diuretics.

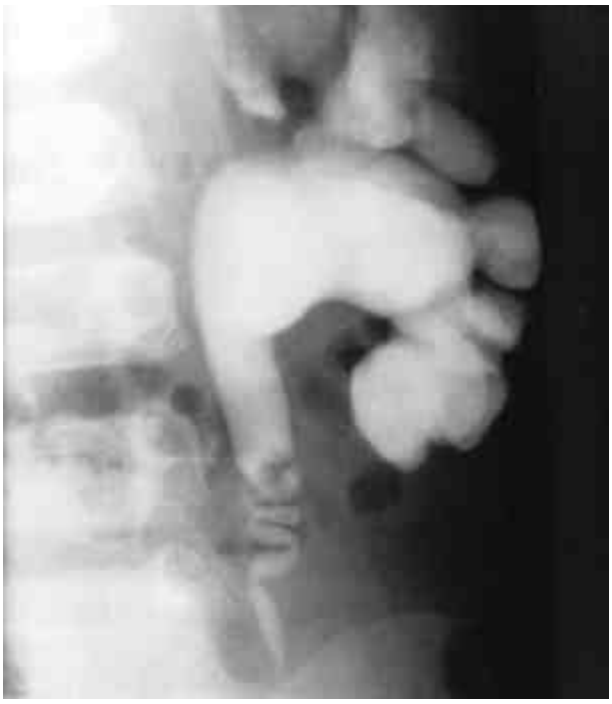

Fig. 2. Excretory urogram shows a filling defect in the dilated ureter above the stricture site with multiple kinking.

Fig. 3. There are multiple polyps, thick and short upper one and thin and long lower two.

Tissue pathology was reported as a benign lesion on the frozen biopsy and fibroepithelial poyp on the final report (Fig. 4). Histopathology of the UPJ was relatively normal and its lumen was patent. However, the UPJ with narrow lumen and multiple kinking was wrapped within a fibrous sheath so that a small catheter couldn't be passed through it.

Fig. 4. Microscopic finding shows edematous fibrovascular stroma with thin-walled blood vessels, which is covered with thin urothelial epithelium. H&E, ×40.

DISCUSSION

Clinical and radiological findings of the ureteral fibroepithelial polyp are similar to those of other solid tumors. Its preoperative differentiation from the malignant disease is important although not easy, especially in a young boy. The etiology of this polyp is not known yet, but there is a suggestion that it is a likely congenital because it occurs in newborns and being associated with anomalous lesions (5, 6). A case of ureteral polyp associated with obstruction of the ureteropelvic junction caused by aberrant vessel in an adult was reported, in which case the polyp was below the obstruction site (7). In our case the ureter having smaller caliber and multiple kinking was wrapped within a thin fibrous sheath even though its lumen was patent and there was no severe fibrosis in the ureteral wall in pathology. In the above two cases nothing was known about any possible correlation between polyps and associated lesions. Endoscopic procedure has been used for diagnosis and treatment of the benign polyp (8, 9). However, it is not only hard for

endoscopes to be applied to young child, but their use is almost impossible in a patient with a ureteral stricture below the polyp as in our patient.

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