Case Report

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Hydronephrosis due to Fibroepithelial Ureteral Polyp in a Child

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Key Words

Ureteral polyp
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Abstract

The case of a 5-year-old girl, complaining of left abdominal and flank pain, is reported. The excretory urogram and retrograde pyelography showed an obstruction located at the left upper ureter with hydronephrosis. Exploration revealed a small ureteral polyp obstructing the lumen. The polyp along with the short segment of the ureter was resected. Diagnostic and therapeutic considerations are discussed.

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Primary benign ureteral tumors are rare. These tumors arise from the mesodermal tissues of the ureteral wall and include fibromas, leiomyomas, granulomas, neurofibromas, hemangiomas, endometriosis and fibroepithelial polyps [1]. We present a case with hydronephrosis due to an obstructive fibroepithelial polyp in a girl. A review of the literature revealed 36 cases of such lesions in children.

the polyp. The patient had an uneventful recovery. An intravenous pyelogram 3 months postoperatively, showed a normal left upper urinary tract.

A histologic examination revealed a polypoid tumor composed of loosely arranged connective tissue with interspersed bundles of smooth muscle fibers covered by transitional epithelium (fig. 4A). Serial sections revealed gland-like structures of the transitional epithelium buried in the stroma with openings extending to the surface epithelium (fig. 4B).

Case Report

A 5-year-old girl was admitted to hospital complaining of intermittent left abdominal and flank pain for 5 months. There was no history of dysuria or hematuria. On physical examination there was some left flank tenderness without any palpable mass. Findings of urinalysis were normal and urine culture showed no growth. A sono-gram revealed left hydronephrosis. An intravenous urogram showed left upper ureteral obstruction with hydronephrosis (fig. 1). The obstruction was further confirmed by left retrograde pyelography (fig. 2), yet no filling defect had been shown. Exploration revealed a solitary round ureteral polyp, 0.7 cm in diameter, with smooth surface and short thin pedicle, located at the proximal ureter (fig. 3). A dismembered ureteropyeloplasty was performed, excising the area of

Discussion

Patients with fibroepithelial polyps usually present with hematuria or flank pain from obstructive hydronephrosis [2]. When an ureteral filling defect is detected, the exact nature of the lesion must be determined preoperatively in order to avoid performing radical surgery for a benign lesion. As long as the nature of the lesion is not clear, frozen sections during operations are necessary to verify a malignant lesion which justifies radical surgery. Debruyne et al. [3] reviewed 112 cases of fibroepithelial polyps and found that 37% of these patients underwent an

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Fig. 1. Intravenous pyelogram showing left upper obstruction with hydronephrosis.
Fig. 2. Retrograde pyelography revealing upper obstruction, yet no filling defect is shown.
Fig. 3. Ureteral polyp is bulging out from the upper ureter.

Fig. 4. Microscopic sections of the polyp revealing tissue stroma with interspersed bundles of smooth muscle fibers covered by transitional epithelium (A) and gland-like transitional epithelium buried in the stroma (B).

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unnecessary nephrourethrectomy, whereas the 63% that underwent local resection did well without any evidence of recurrence. Fibroepithelial polyps of the ureter are more commonly found in boys (80.6%), especially on the left side (69.4%) and often arise in the proximal ureter or renal pelvis [4]. In some cases, such as ours, radiographic signs are those of a nontypical ureteropelvic junction obstruction and the true nature of the obstruction might only be revealed during operation. Local excision with or without segmental resection is the appropriate treatment. Prognosis should be considered as excellent without a report of recurrence.

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