Ureteral benign fibroepithelial polyp: A case report

Published on 31.08.2000

DOI: 10.1594/EURORAD/CASE.352
ISSN: 1563-4086
Section: Uroradiology & genital male imaging
Imaging Technique: MR
Case Type: Clinical Cases

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Patient: 60 years, male

Clinical History:
Hematuria and right flank pain.

Imaging Findings:
Since 6 months right flank pain and hematuria. No other symptoms or biological alterations were associated. Physical examination showed no costovertebral angle tenderness. Urine culture was negative and urine cytology showed no malignant cells.

Discussion:
Primary ureteral neoplasms are rare. Benign tumors, epithelial and nonepithelial lesions, account for 20% of all ureteral tumors. Nonepithelial neoplasms derive from mesodermal tissue and include leiomyomas, fibromas, neurofibromas, granulomas, endometriomas, lymphangiomas and fibroepithelial polips, the most common of the group (30% of all benign tumors). No cases of malignant transformation have been reported. The fibroepithelial polip occurs more frequently in male than female (male to female ratio 3:2), during the second-fourth decades of life, despite several cases have been described in children. Preoperative diagnosis is important to avoid nephrectomy, that is performed in case of malignancy. Etiology of these lesions is unclear, although various factors, such as infection, chronic irritation, obstruction and trauma, have been proposed. Fibroepithelial polyp usually appears as a solitary lesion at the ureteral upper third, slightly more frequently involving the left rather than the right ureter. Rarely bilateral or multiple ureteral polyps have been described. Usually patients present with hematuria (58%) and flank pain owing to obstructive hydronephrosis (79%). Pain is typically intermittent. Sometimes colics for partial obstruction or ureteral intussusception or peduncle torsion may occur (fig. 1 A, B). At the right ureteral proximal third, intravenous pyelogram showed a smooth, mobile, elongated filling defect (fig. 2 A, B). Ureteroscopy showed two ureteral polyps (fig. 3 A, B) with a smooth epithelial surface, but only with retrograde pyelogram the origin at the ureteropelvic junction was discovered (fig. 4). Conservative surgery with local resection of the ureteral segment and tumor excision was performed (fig. 5 A, B). The histological examination of the resected specimen (fig. 6) confirmed the diagnosis of fibroepithelial polip (fig. 7 A, B). The follow-up at 6 months showed an excellent postoperative result (fig. 8).

Differential Diagnosis List: Fibroepithelial polyp of the ureteropelvic junction

Final Diagnosis: Fibroepithelial polyp of the ureteropelvic junction
References:

Debruyne FMJ et al.

Bahnson RR et al.
Fibroepithelial polyps of the ureter.

Macksood MJ et al.
Benign fibroepithelial polip as a cause of intermittent ureteripelvic junction obstruction in a child: a case report and review of the literature.

Haupert S et al.

Bartone FF et al.
Bilateral fibroepithelial polyps of ureter in children.
Pediatric Urology, 34: 519-22. (PMID: 199011)
Figure 1

**a**

*Description:* Polyp leading the ureteral intussusception

*Origin:*

**b**

*Description:* Peduncular torsion of an ureteral fibroepithelial polyp

*Origin:*
**Figure 2**

*a*  

*Description:* Intravenous pyelogram showed a elongated filling defect, in the right ureter.  

*b*  

*Description:* Presence of a mobile and elongated filling defect.
Description: Ureteroscopy shows two ureteral polyps with a smooth epithelial surface. Origin:

Description: Polyps projecting into the lumen. Origin:
Description: Retrograde pyelogram shows the polyps originating from the proximal third of right ureter
Origin:
Figure 5

a

Description: Intraoperative photograph shows local resection of the ureteral segment containing the polyps Origin:

b

Description: The polyp is exposed (arrowhead) Origin:
Description: Resected specimen demonstrates two finger-like projections

Origin:
Figure 7

Description: Histologic section shows the fibrovascular stroma of the polyp.

Origin:
Description: Histologic aspect of the polyp with a normal urothelial covering Origin:
Description: 6-month follow-up: the intravenous pyelogram demonstrates excellent postoperative result
Origin:
**Description:** 12-month follow-up: the intravenous pyelogram does not demonstrate long term complications **Origin:**