Journal of Korean Medical Science
Vol. 11, No. 1, 80-83 February 1996

Fibroepithelial Ureteral Polyp
—A Case Report; Endoscopic Removal of Large Ureteral Polyp—

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We report a case of primary fibroepithelial polyp of the right midureter. The patient was a 41-year-old-woman, complaining of right flank pain. An excretory urogram revealed right hydronephrosis and a filling defect of the the right midureter. The filling defect was produced by a large fibroepithelial polyp that was diagnosed and removed by ureteroscopy without open surgery. Large fibroepithelial ureteral polyps are relatively rare and ureteroscopy is the gold standard of diagnosis for ureteral filling defect.

Key Words: *Fibroepithelial ureteral polyps, Ureteroscopy*

INTRODUCTION

Primary ureteral tumors are rare, representing less than 1 per cent of all genitourinary cancers, and benign ureteral tumors constitute only a small portion. In a review of ureteral neoplasms by Abeshouse, 80 per cent were malignant and 20 per cent were benign(Macksood et al., 1985). Tumors of the ureter can be classified as epithelial or mesodermal. The epithelial(transitional cell) tumors are virtually all malignant or potentially so, while the mesodermal tumors are almost always benign and include fibroepitheliomas, leiomyomas, lymphangiomas, neurofibromas, hemangiomas, endometriosis, and fibromas. In the benign ureteral tumors, fibroepithelial polyps are most common(Bahnson et al., 1984 ; Macksood et al., 1985 ; Musselman and Kay, 1986).

Fibroepithelial polyp is a benign tumor of a mesodermal origin that arises in the wall of the ureter, renal pelvis, bladder or urethra.

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Fibroepithelial polyps are more common in men, with a male versus female ratio of 3 : 2 during the second, third, and fourth decades. The condition is rarely reported in infants and children(Thorop et al., 1981 ; Musselman and Kay, 1986).

Ureteral fibroepithelial polyps are usually located in the proximal third of the ureter, and the left side is more commonly involved than the right. Usually, they are solitary lesions, but a few bilateral and multiple polyps have been reported(Muslumanoglu and Karaman, 1994).

Most patients present with either hematuria or flank pain secondary to partial ureteral obstruction. The diagnosis may be established with excretory urography, retrograde pyelography, or both. However, despite extensive preoperative examination, an exact initial diagnosis is very difficult, and consequently, needless radical surgery is performed.

We describe a woman who was admitted to our clinic with right flank pain and a right ureteral filling defect that was diagnosed and treated by ureteroscopy without open surgery.

CASE REPORT

A 41-year-old woman presented complaining of

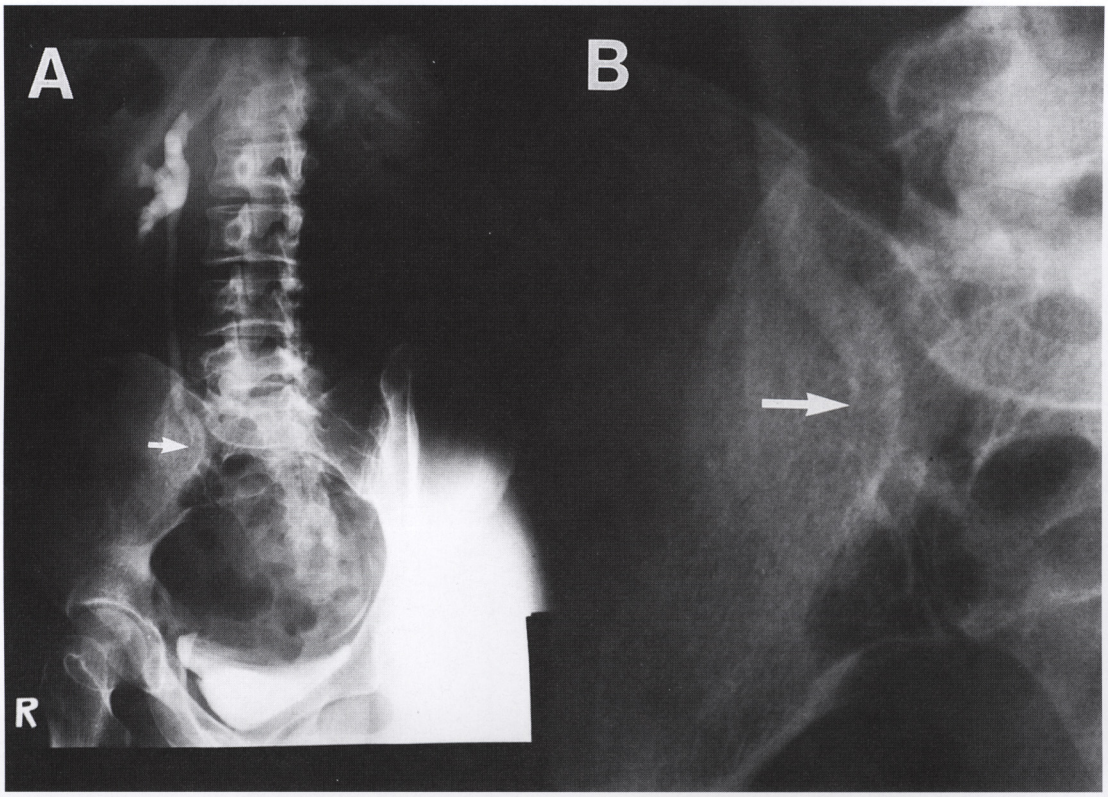

Fig. 1. (A) IVU 15 min film, a cylindrical, nonobstructing filling defect is noted in the right midureter (arrow). (B) Closer view of the right midureter shows an elongated intraluminal filling defect (arrow).

right flank colicky pain for 1 day. Her medical history was unremarkable. Physical examination revealed right costovertebral angle tenderness. Blood chemistry and urinalysis were normal. An excretory urogram(I-VU) revealed mild dilatation of the right pelvocalyceal system and ureter, and a regular, cylindrical, nonobstructing filling defect was noted in the right midureter-(Fig. 1).

Under general anesthesia, a No. 12F rigid ureteroscope was advanced into the right ureter and then a pedunculated mass was identified at 10 cm beyond the ureteral orifice. It was completely resected by biopsy forcep.

The specimen measured about 5 × 0.5 cm(Fig. 2).

Micrscopically, surgical tissue showed a polypoid growth, consisting of various components in variable proportions, including collagen and thin-walled vessels. It was covered with normal transitional epithelium. In the fibrovascular stroma, mild chronic in-

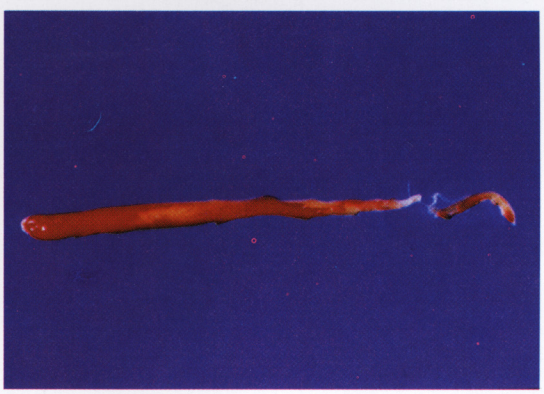

Fig. 2. Gross finding of the removed polyp. The ureteral polyp was smooth with a glossy surface and measured 5 × 0.5 cm.

flammatory cell infiltration was noted(Fig. 3A).

Masson's trichrome stain showed a thick fibrovascular core with rich collagen and many smooth muscle-walled vessels(Fig. 3B).

DISCUSSION

Fibroepithelial ureteral polyps are rare benign mesodermal tumors that occur predominantly in the upper ureter. Most occur during the second, third and forth decades of life, and several cases also have been described in children and neonates. The fibroepithelial polyp presents usually as a solitary lesion ; only several cases of bilateral or multiple ureteral polyps have been described(Thorop et al., 1981 ; Barton et al., 1984 ; Macksood et al., 1985).

Our case differs from those usually reported in that the patient was female and had a lesion in the right midureter, and a lesion size of 5 cm. On the other hand, the patient's complaints, the urographic findings, and the endoscopic appearance of the lesion are very similar to the reports in the literature.

The exact etiology of benign ureteral polyps is not certain. However, because they have been found in children, it is likely that they have a congenital origin(Thorop et al., 1981 ; Macksood et al., 1985).

The clinical presentation of hematuria and a ureteral filling defect poses a diagnostic challenge to the urologist. A differential diagnosis includes benign and malignant tumors, radiolucent stones, thrombus, sloughed papillae and inflammatory lesions. The differentiation between malignant epithelial tumors and benign ureteral polyps is particularly important because local resection is the treatment of choice for the latter.

Ureteroscopy is the cornerstone of the diagnosis and treatment of ureteral polyps. Ureteroscopy can easily distinguish a smooth-surfaced pedunculated fibroepithelial polyp covered with normal mucosa from a urothelial carcinoma.

Thus, because of inadequate preoperative diagnosis, nephroureterectomy that probably was unnecessary can be performed. By using endoscopic technique, major open surgery for a benign, non life threatening condition can be avoided. In our case, a No. 12F rigid ureteroscope and biopsy forcep were used for diagnosis and treatment of the ureteral polyp.

There has not been a report of recurrence after polypectomy or segmental resection, and prognosis should be excellent(Muslumanoglu and Karaman, 1994).

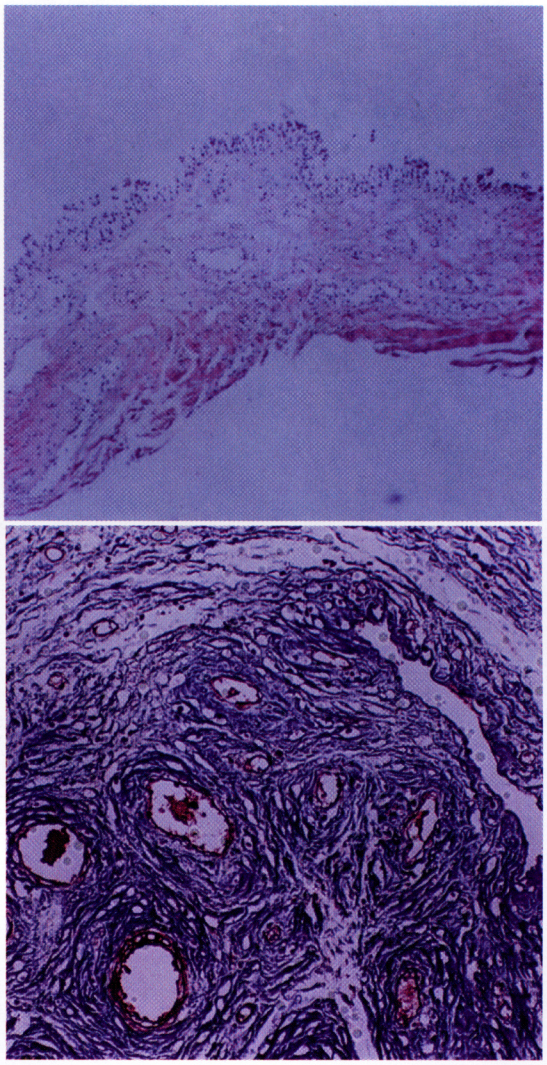

Fig. 3. Microscopic appearance (×40). The ureteral polyp is covered by normal urothelial mucosa. Mild chronic inflammatory cell infiltration is associated (A). Masson's trichrome stain shows a thick fibrovascular core with rich collagen and many vessels (B).

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