

Endoscopic Treatment of Simultaneously Detected Fibroepithelial Polyps of Ureter and Bladder

Mesane ve Üreterde Eş Zamanlı Olarak Tespit Edilen Fibroepitelyal Poliplerin Endoskopik Tedavisi

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Üriner sistemin fibroepitelyal polipleri ender görülen ve günümüzde endoskopik olarak tedavi edilen iyi huylu tümörlerdir. Endoskopik tedavi küçük boyutlu polipler için altın standart olarak kabul edilmekle birlikte, büyük boyutlu poliplerin tedavisi hakkında kesin bir görüş birliği yoktur. Burada sistroskopi esnasında mesane ve üreterde eşzamanlı olarak tespit edilen fibropitelyal polipleri olan vakamızı ve üreterdeki 7 cm uzunluğundaki polipin holmium:YAG laser ile endoskopik olarak çıkartılmasını tarifliyoruz.

Anahtar Sözcükler: Fibroepitelyal polip, Bladder, Üreter, Endoskopik Tedavi

Fibroepithelial polyps of the urinary tract are rare benign tumors that usually treated with endoscopically today. Endoscopic treatment have been regarded as the gold standart for small lesions, while the management modality for long lesion is stil controversial. We report a case of simultaneous fibroepithelial polyps of bladder and ureter which is incidentally detected on cystoscopy. We review our experience with ureteroscopic management of long (7 cm) ureteral fibroepithelial polyp by holmium: yttrium- aluminum- garnet (YAG) laser resection.

Key Words: Fibroepithelial polyp, Bladder, Ureter, Endoscopic treatment

Fibroepithelial polyps (FEPs) are the most common benign lesions of the urinary tract (1). Although the exact etiology of them is uncertain, some have suggested both congenital factors in children and chronic infection in adults (2). FEPs are predominantly located in the upper third of the ureter and the ureteropelvic junction (3). The most common symptoms are hematuria and flank pain, which may be attributable to either torsion or intussusception of the polyp or an obstruction. The endoscopic approach is applied for diagnostic and therapeutic evaluation. Relatively few reports have been published of excision of FEPs with use of flexible ureteroscopy in conjunction with the Holmium:YAG laser (4, 5). To our knowledge, there is no report have been published about coexistence of FEPs in ureter and bladder. We report our experience on endoscopic holmium:YAG laser treatment of this large FEP.

Case Report

A 43-year-old woman was referred to us with intermittent right flank pain and hematuria. She had undergone left adrenalectomy 7 years ago. Physical examination and routine blood tests were normal. Urine analysis showed mild microscopic hematuria with a sterile urine culture. Abdominal ultrasonography showed a solid mass in the urinary bladder. The rest of abdomen was normal. No hydronephrosis was seen in the right kidney. The patient subsequently underwent diagnostic cystoscopy. Cystoscopy revealed a right ureteral polyp and a polypoid masses (2x2 cm size) around the right ureteral orifice (Figure 1). A urine sample was taken for cytology. The polypoid masses in the bladder were transurethral resected by electroresection and couterized. Ureteroscopic evaluation of the right ureter showed the 7 cm lenght polyp (Figure 2). The polyp in the distal ureter was grasped with

Received: 12.08.2009 • Accepted: 28.10.2010

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Figure 1. Transurethral resection of bladder polyp

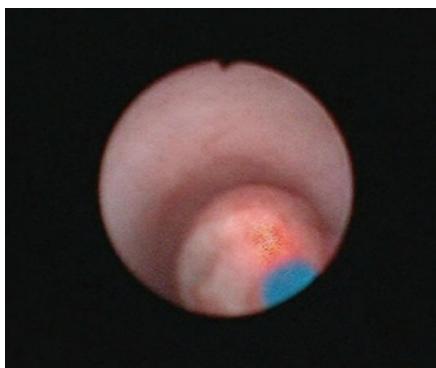


Figure 2. Ureteral resection of fibroepithelial polyp with laser



Figure 3. IVU and CT urography reveals a right distal ureteral filling defect (arrows)



Figure 4. Gross specimen of the ureteral polyp

biopsy forceps and punch biopsies were done with ureteroscope. The histological examination revealed a fibroepithelial polyp of the ureter and bladder. The result of urine cytology

was negative. The patient underwent a routine intravenous urography (IVU) and computerized tomography (CT) urography evaluation and elongated filling defect involving the

distal part of the right ureter (Figure 3). Three weeks later second look ureteroscopy was performed with an 8.4/5.3F flexible ureteroscope (Olympus) for removal of ureteral FEP. Before ureteroscopy a 0.038 hydrophilic guidewire was advanced through the orifice and the ureteroscope was advanced via the hydrophilic guidewire. A holmium: Yag laser was operated at a wavelength of 2100 nm, and the frequency was usually set between 5 to 10 Hz. The base of polyp was ablated with a 365 nm holmium laser fibre operating at 10W to 15W. The polyp was then removed from the ureteral wall with 3F grasping forceps (Figure 4). Hemostasis was achieved with laser coagulation. A 4.8F ureteral stent was placed at the completion of the procedure and removed 6-week follow-up visit. Histologic analysis demonstrated FEP with no evidence of malignancy. The operative time was 55 minutes. No complication was observed during the procedure. Subsequent intravenous urography (IVU) at 12 months was normal. No recurrence or ureteral stricture was detected.

Discussion

Fibroepithelial polyps are rare, benign, mesodermal tumors of the urinary tract that are histologically composed of fibrous stroma covered with a transitional epithelium (3). Other rare urinary tract tumors, which are even less common than FEPs, are leiomyomas, lymphangiomas, fibromas, endometriomas, and neurofibromas (6). FEPs typically appear as smooth, mobile, pedunculated mass. In some cases it is difficult to differentiate them from transitionel cell carcinoma, based only on imaging findings and their potential for malignant transformation is extremely rare (7). Based on current literature, FEPs can occur in newborns and adults older than 70 years but commonly present in adults in the third through the fifth decades, with a male/female ratio of 3 to 2. Most FEPs occur in the

ureter, 15% occur in the renal pelvis, and small number develop in the posterior urethra or bladder (3, 4). The usual location of a FEP of the ureter is in the proximal part, with the left side being more commonly involved than the right side. They are almost always unilateral and solitary, however, cases of bilateral or multiple polyps in a ureter have been described (4, 8). FEPs are thought to be either congenital slow-growing lesions or lesions that develop as a result of chronic urothelial irritants, such as infection, inflammation, or obstruction (2). However, the definitive etiologic factors of these tumors are still unknown. The most common symptoms are hematuria and flank pain, which may be attributable to either torsion or intussusception of the polyp or an obstruction. Urinary frequency, dysuria, and pyuria are less common findings (4).

Preoperative radiological diagnosis of FEPs is difficult. IVU shows a filling defect within the renal pelvis or ureter. Ultrasonography and CT can be used to rule out radiolucent calculi, sloughed papillae, fungi, or blood clots and allows the extent and morphological features of these tumors to be determined (9). The role of CT urography in the diagnosis of FEPs is determinative in the preoperative assessment, but other authors doubt

its ability to provide information complementary to IVU (10). It is important to distinguish fibroepithelial polyps from upper urinary tract carcinoma, because the management and prognosis can be significantly different. Cystoureteroscopy, which enables a biopsy, is very important in the study of filling defects located in the excretory system (6). Cystoscopy is essential following an episode of hematuria for the evaluation of urothelial tumors in the bladder. All patients should have biopsy proven histologic confirmation before beginning definitive therapy (4).

Treatment of FEPs includes local coagulation by laser, polypectomy by ureteroscopy, segmental resection with ureteroureterostomy or nephroureterectomy. In the past management of FEP was excision of the polyp and reanastomosis with an open procedure. Recently, with the advent of ureteroscopes, endoscopic biopsy and resection of these tumors has become more popular. The holmium:YAG laser is another modality for endoscopic resection. Carey et al successfully ablated multiple polyps in one ureter by using the holmium laser and removed each polyp from the ureteral wall with grasping forceps (5). Percutaneous antegrade excision should be available for treating polyps in the renal pelvis and

the upper ureter (4). The holmium laser is well suited to the treatment of these entities. The depth of penetration of the holmium:YAG laser is desirable to avoid inadvertent thermal injury to the ureteral wall during coagulation of resection site. Ureteroscopic resection can be difficult in patients with a long, thick polypoid lesion similar in our case. This difficulty is often caused by inability to access the base of the stalk because of hindrance from the pedunculated body of the lesion (11).

Furthermore visualization may also be poor, and little working space is available, making it difficult to differentiate the ureteral wall from the polyp itself. Therefore, before the procedure a hydrophilic guide wire was placed past the polyp base in the patient. It is important that to find the base of the polyp is essential for the successful endoscopic treatment. In this study we report a case of a simultaneous bladder and ureteral FEP which is incidentally demonstrated on cystoscopy. We have also demonstrated that with the proper equipment and endoscopic experience highly complex cases of FEP in ureter may be treated with by minimally invasive means with the preservation of the renal unit.

KAYNAKLAR

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