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ENDOSCOPIC MANAGEMENT OF A NON-DEFLATING FOLEY CATHETER INCIDENTALLY PLACED IN A DISTAL URETER

Mesut Mehmet PIŞKIN, Ozcan KILIC, Mehmet KILINC, Mehmet KAYNAR, Umit OZDEMIR

ABSTRACT:

The misplacement of a urethral catheter in a ureter is very rare complication. We report a case of incidental catheterization by urethral route with a 16 F Foley catheter of which the balloon was nondeflated in the distal part of the left ureter in a female patient who was catheterized for voiding cystourethrography and its successful management with endoscopic puncturing of the balloon.

Key words: Endoscopic Management, Misplaced Catheterization, Cysto-Urethrography

RASTLANTISAL OLARAK DİSTAL ÜRETERE YERLESEN BALONU İNDİRİLEMEYEN FOLEY KATETERİN ENDOSKOPİK TEDAVİSİ

ÖZ:

Üretral kateterin, üretere rastlantısal yerleşimi nadir karşılaşılan bir komplikasyondur. Biz, voiding sistoüretrografi için kateterize edilen bayan hastada, üretral yoldan kateterizasyon sırasında rastlantısal olarak sol üreter distaline yerleşen, balonu indirilemeyen, 16 F foley kateter balonunun endoskopik olarak başarılı şekilde indirildiği bir vakayı sunuyoruz.

Anahtar Kelimeler: Endoskopik Tedavi, Yanlış Lokalizasyona Kateterizasyon, Sistoüretrografi

INTRODUCTION

Urethral catheterization is the most common retrograde manipulation performed on the urinary tract. The catheterization is performed not only to drain the bladder as a part of treatment but also to diagnose a urological disorder in cases of voiding cystourethrography (VCUG). Traumatic urethral catheterization is more common in males than in females. Here we report a rare complication of urethral catheterization in a female patient with a misplaced and non-deflated Foley catheter in the left ureter and its endoscopic management.

CASE REPORT

A 29-year-old female who was known to have chronic renal failure (daily urine volume 400 ml) for 9 years because of glomerulonephritis and who had been on hemodialysis for 9 months was referred to our clinic for investigation of vesicoureteral reflux before renal transplant.

The patient was catheterized with a 16 F Foley catheter in the urology clinic for VCUG. The catheter was flushed with 5 cc of sterile saline. During the filling phase of the VCUG with diluted radiopaque contrast agent, we observed only the left ureter and left renal collecting system filled with the contrast medium with no filling of the bladder (Fig. 1). We suspected that the urethral catheter was incidentally placed in the left ureter. Then attempts were made to remove the catheter but it could be neither deflated nor flushed. The side arm of the Foley catheter was cut to eliminate the effect of the valve mechanism but we did not observe extrusion of the fluid in the balloon. We used the sharp end of a ureteral stent stylet with lubricant, but the wire could not be advanced as far as the balloon through the inflation port. Ultrasound-guided puncture of the urethral catheter's balloon was also unsuccessful.

Selcuk University, Meram Medical Faculty, Department of Urology, Konya, Turkey

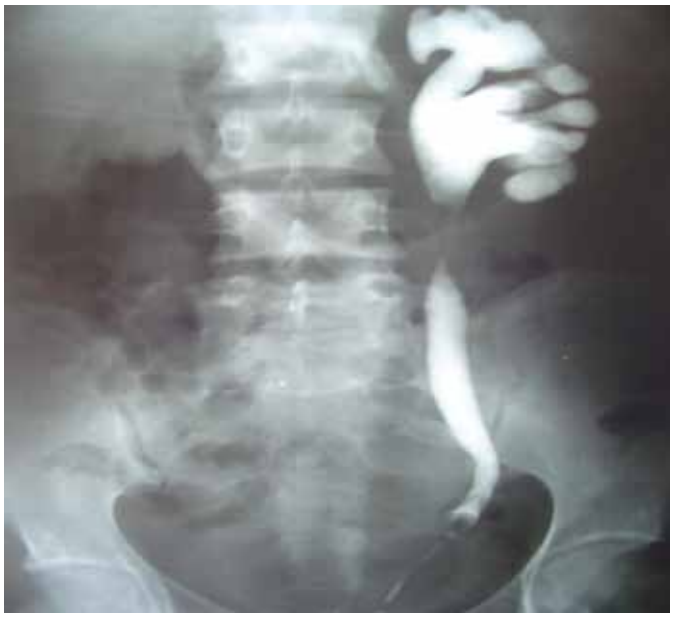

Fig.1: Retrograde pyleogram via the misplaced urethral catheter in the left distal ureter.

The patient underwent an emergency cystoscopy under general anesthesia, which showed that the catheter had ascended to the left ureter. An endoscopic puncture was performed with a metal needle (3.7 F, 23G, 35 cm, a STING needle) below the left ureteric orifice in the 5 o'clock position, the balloon of the catheter was popped, and the Foley catheter was removed successfully (Fig. 2).

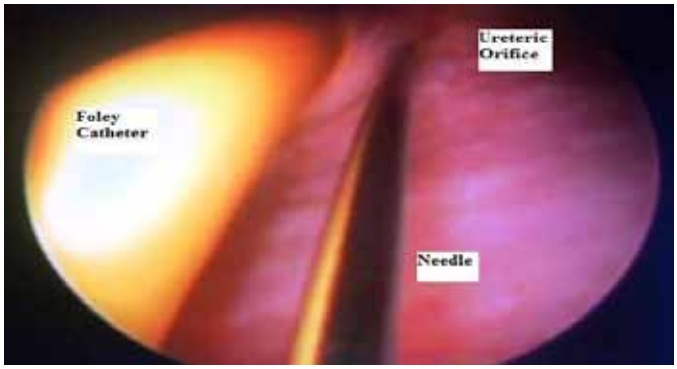

Fig. 2: Endoscopic puncture of the misplaced Foley catheter balloon with a metal needle.

DISCUSSION:

Urethral catheterization might cause various complications, such as urethral injury, which sometimes result in the extravesical placement of a catheter in the male lower urinary tract[1].

In women, urethral catheterization is mostly easier and non-traumatic, but ectopic urethral meatus, mostly found in the vagina, and morbid obesity make insertion of the catheter difficult[2]. To our knowledge there has been no report on misplacement of a urethral catheter through the ureter for diagnostic purpose such as VCUG. Furthermore, there is only one accidental 16 F urethral catheter placing in the ureter in a female patient after a retropubic suspension operation[3].

There is no evident explanation for the direct insertion of a 16 Fr catheter, a large device, into the ureter through the ureteral orifice without pretreatment or mechanical dilatation. However, as in the present case, it is thought that catheter misplacement is more common in patients who were catheterized with empty bladders[4]. The current mishap is an extremely rare example, but the urethral catheterization should have been performed more carefully.

The treatment of the non-deflating ureteral catheter could be performed by endoscopic incision of the ureteric orifice as Muneer described[5]. However, the technique described in the present case is safe and it does not harm the ureteric orifice. In addition, it is less invasive compared to incision of the ureteric orifice. However, we advise urologists to be alert when managing a patient who presents with a non-deflated catheter.

Correspondence Address: Mehmet KAYNAR
Selçuk University, Meram
Medical Faculty, Department of
Urology, Konya, Turkey
Phone: 0332 223 60 44
E-mail: mekaynar@gmail.com

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