

Intravesical Foreign Body Causing Unilateral Hydronephrosis: Case Report

Böbrekte Tek Taraflı Hidronefroza Yol Açan Mesanede Yabancı Cisim

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ABSTRACT Cases with foreign bodies in the bladder are rarely seen and generally they do not cause hydronephrosis. Sixty-six year old male patient was admitted to the hospital with the complaints of left flank colicky pain. Left hydronephrosis, dilatation of the proximal ureter and a foreign body in the bladder were seen in urinary system by computerized tomography. The foreign body was uniformly bounded and 4 cm long. Cystoscopy revealed a foreign body near the left orifice. After that, while removing stone fragments from this main structure with grasper, it was figured out that this formation was a piece of foley's catheter. When the patient was questioned in detail, he declared that following his knee surgery, 18 months ago, he pulled out his foley catheter by himself and he got better in a few days after the urethral bleeding. Therefore, patient history is important for the diagnosis of intravesical foreign bodies. Every patient must be evaluated for their undesirable situation. Moreover, grasping device is a good option for the extraction of foreign bodies.

Key Words: Foreign bodies; urinary bladder

ÖZET Mesane içinde yabancı cisim bulunması ürolojide ender görülmektedir. Bu cisimlerin böbrekte hidronefroz yapmaları çok nadirdir. Sol yan ağrısıyla gelen 66 yaşındaki erkek hastanın yapılan tetkiklerinde USG'de sol böbrek hidronefrotik, ureter proksimali ise dilate görünümdeydi. Çekilen bilgisayarlı tomografisinde, mesanede düzgün sınırlı 4 cm'lik yabancı cisim saptandı. Sistoskopi mesaneye girildiğinde, sol orifis önünde taşlaşmış bir yabancı cisim görüldü. Sistoskop içinden geçirilen grasper yardımı ile yabancı cisim çıkarıldı. Cismin üstündeki taşlaşmış tabaka döküldüğünde bir foley parçası olduğu görüldü. Anamnez derinleştirildiğinde; 18 ay önceki diz operasyonu sonrası hasta foleyinden rahatsız olunca kendisinin çektiği ve bir miktar uretral kanama sonrası iyileştiği öğrenildi. Hidronefroza yol açan mesanede yabancı cisimler ürolojide çok nadirdir. Bu tür hastaların anamnezi derinleştirilmeli ve olabilecek ihtimaller önceden değerlendirilmelidir. Ayrıca, bu tür yabancı cisimler çıkarılırken taş kırmada kullanılan "grasper" da iyi bir seçenektir.

Anahtar Kelimeler: Yabancı cisimler; mesane

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Cases with foreign bodies in the bladder are rarely seen. Etiology of these cases is iatrogenic and the causes are, migration from adjacent organs, and tissues and self-insertion, and psychological problems such as psychiatric disturbances, dementia or alcohol ingestion.¹ These might lead to uncontrollable behavior resulting in foreign bodies; and this situation rarely results in hydronephrosis.²

CASE REPORT

Sixty-six-year-old male patient was admitted to the hospital with the complaints of left flank colicky pain. Direct urinary system X-ray and other blood tests were normal. However, left kidney hydronephrosis and a foreign body in bladder were seen in urinary system ultrasound and also noticed in further computerized tomography (CT). The foreign body was uniformly bounded and it was nearly 3-4 cm in dimension (Figure 1). Prostate surgery (15 years ago) and knee surgery (1,5 years ago) have been noticed in his past medical history.

A decision was made for an intervention under spinal anesthesia. The bladder was entered with a 22-F cystoscope and the foreign body was tried to be approached with forceps. The foreign body was found in the bladder that was covered with stone close to left ureteral orifice (Figure 2). After that, while removing stone fragments from this main structure, it was figured out that this formation was a piece of Foley's catheter (Figure 3).

When the patient was questioned further, he declared that following his knee surgery, 18 months ago, he pulled out his urethral catheter by

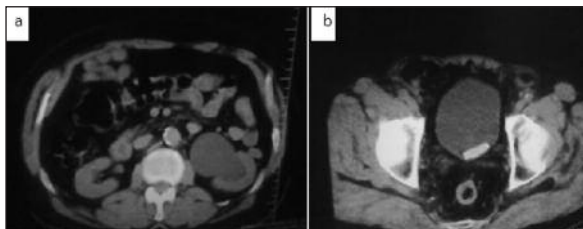


FIGURE 1: a) Left renal hydronephrosis on CT.
b) Intravesical foreign body on CT.

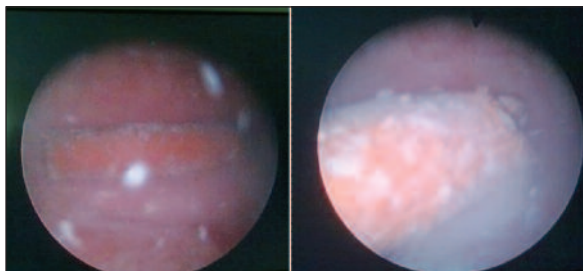


FIGURE 2: Cystoscopic view of the bladder foreign body near the left ureteral orifice.

(See color figure at <http://www.turkiyeklinikleri.com/journal/uroloji-dergisi/1309-632X/>)



FIGURE 3: Intravesical foreign body (a piece of Foley catheter) which extracted with grasper.

(See color figure at <http://www.turkiyeklinikleri.com/journal/uroloji-dergisi/1309-632X/>)

himself, and he recovered in a few days after the urethral bleeding.

Then, we reexamined the patient with a ultrasonic evaluation four weeks later, and it was observed that unilateral hydronephrosis was regressed.

DISCUSSION

Intravesical foreign bodies have an important role in the differential diagnosis of patients with chronic lower urinary tract problems and they may sometimes cause serious problems on patients.

Radiologic investigations help to identify a foreign body. Therefore, a simple radiography (X-ray) and computerized tomography should be performed with the probability of foreign bodies in the urinary bladder. If such imaging indicates a high-attenuation tubular lesion inside the bladder, it is possible that this foreign body is silicon.³

Different kinds of foreign bodies in the urinary bladder have been reported, including electric wire, a thermometer, a pen and a pencil.⁴ The etiology of bladder foreign bodies may be iatrogenic, urethral self-insertional things, penetrating trauma to urethra, and migration structures from adjacent organs.³

Patients may present with some different symptoms because of the nature or insertion way of foreign bodies. The common symptoms include frequency of mixture, dysuria, hematuria, incontinency, external genitalia swelling, acute urinary retention, and colicky pain. Radiological evaluation is required to determine the exact size, number, and nature of them.⁵

CT-scan is suggested for all foreign bodies to identify their exact place and size.

Our case was quite different from other case reports due to its causing one side hydronephrosis. This situation is also very rare, because normally bilateral hydronephrosis have been noticed in some other cases.⁶

The techniques of foreign body removal in bladder might differ from case to case due to the features of foreign bodies and should be dictated regarding the needs of the individual case.⁷

Extraction should be tailored according to the nature of the foreign body and should minimize bladder and urethral trauma.⁸ Most foreign bodies in the bladder are compatible to transurethral removal. Therefore, endoscopic removal might be enough for the extraction of most foreign bodies and should be recommended as the first-line approach.⁹

To avoid open surgery such as suprapubic cystotomy, the percutaneous minimally invasive approach might be performed. In such cases, the

foreign body must be extracted antegradely without causing undue trauma to the bladder or urethra.¹⁰

We described a known but different approach for the removal of bladder foreign body in the cases of failed cystoscopic removal, because of shape or size. Grasping device was used for the fragmentation of bladder stones, since it grasps strongly. When we cannot use small forceps for the extraction of a foreign body, this can be the best way to hold and extract for endoscopic treatments like that.

Intravesical foreign bodies should be included in the differential diagnosis of patients with chronic lower urinary tract problems. Failure of cystoscopic methods for the removal of intravesical foreign bodies may be predicted when an object's mechanical characteristics are considered.

In conclusion; patient history is still undoubtedly an important factor for the diagnosis of intravesical foreign bodies, especially self-Foley catheter extractions of anxious patients.

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