

## Case Report

## A Rare Foreign Material in the Bladder: Piece of Pencil

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### Abstract

Cases with foreign bodies in the bladder are rarely seen. According to literature, it has been reported that foreign bodies were removed from the bladder. The etiology of these cases are iatrogenic causes, migration from adjacent organs, tissues and self-insertion. In this case report, we presented a 22-year-old female who was admitted to the emergency room with vaginal bleeding, and groin pain. The foreign body was removed from the urinary bladder.

**Keywords:** Female, foreign Body, urinary bladder

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### Introduction

Cases with a foreign body in the urinary bladder present with ambiguous nonspecific symptoms and findings. A detailed history and physical examination are of utmost importance in narrowing the list of differential diagnoses.<sup>1</sup> Foreign bodies in the urinary bladder in women may occur by self-placement, migration from neighboring tissues and organs, as well as iatrogenic causes. Erotic stimulation in young women and curiosity in small children are the possible driving forces for the introducing of the foreign body inside the bladder. Psychiatric disorders, dementia, or alcohol consumption are also major risk factors for introducing of a foreign body inside the bladder.<sup>2</sup> A case of an endoscopically treated 22-year-old female with a pencil introduction into the bladder through the vagina is reported here.

### Case Report

A 22-year-old female patient presented to the emergency service with inguinal pain and vaginal bleeding. She was admitted to the obstetrics and gynecology clinic with the diagnoses of vaginal bleeding and urinary infection. She told that she had fallen on the couch and then vaginal bleeding and inguinal pain had started. Physical examination was nonspecific other than suprapubic tenderness. A vaginal examination could not be performed, as the patient refused to be examined. Biochemistry test results were nonspecific. The b-HCG level was reported to be within normal ranges. Urine microscopy revealed pyuria. Therefore, a urine culture was obtained and intravenous ceftriaxone was started empirically, at a dose of 1 gram twice daily.

The obstetricians and gynecologists suspected that a vaginal foreign body might be present; thus a pelvic magnetic resonance

imaging (MRI) and computed tomography (CT) were ordered. A linear object with an oblique shape in 9 cm length was observed in the lumen of the urinary bladder. No findings for extravasation or perivesical free fluid were observed. The uterus was within normal dimensions, corpus and endometrial signals were normal, and both ovaries were natural (Figure 1). The patient consulted with us and was admitted to our clinic after her evaluation. It was suspected that the object in the urinary bladder might be a foreign body. The patient did not respond to the questions related to any foreign material used for insertion to the body parts. Hymen was seen to be annular during the vaginal examination, which was performed under general anesthesia; no vaginal bleeding was noted. The urethra and both ureteral orifices were seen to be normal in the cystourethroscopy. A blue pencil, measuring 9 cm, was seen starting 3 mm lateral to the left ureteral orifice and extending obliquely up to the dome of the bladder (Figure 2). The pencil was removed transurethrally through the urinary bladder by a foreign body forceps. There was a 3 – 4 mm laceration at the mucosa 3 mm lateral to the ureteral orifice and 2 mm mucosal erosion at the dome. The bladder was filled with irrigation solution and the solution was seen to come through the vagina. The evaluation revealed that a connection was formed between the bladder and vagina. The foreign body, inserted from the vagina was thought to be advanced into the bladder by perforating it. An 18 Fr Foley catheter was placed into the bladder transurethrally. The opening between the bladder and vagina was seen to close spontaneously and there was no urine coming from the vagina after 30 days the foley catheter was removed.

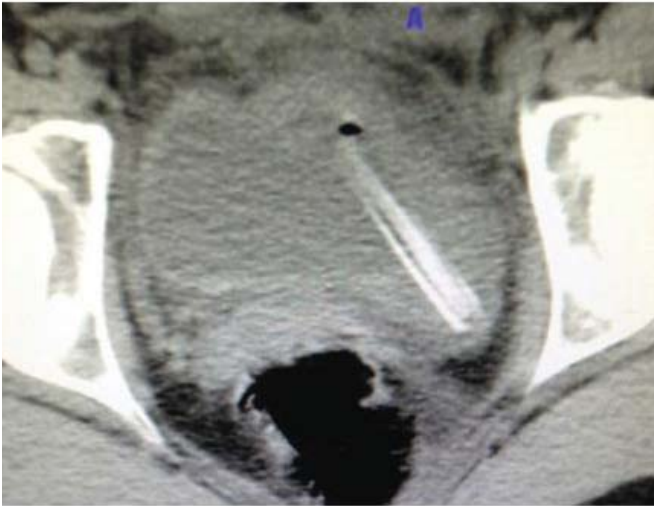
### Discussion

Insertion of a foreign object into the urethra and bladder is a pathological situation that develops due to masturbation with that foreign body. Foreign material in the urinary bladder might be transported into the bladder in several ways.<sup>3</sup> Pencils, telephone cables, thermometers, glass rods, toothbrushes, candles, intravenous infusion lines, balloons, hair clips, and batteries have been reported to be removed from the urethra and urinary bladder.<sup>4-6</sup> Presenting complaints in those patients have been reported to

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**Figure 1.** A foreign body with linear elongation is seen in the MRI.



**Figure 2.** Extracted foreign body (Piece of Pencil)

be urinary retention, dysuria, frequent urination of decreased amounts of urine, nocturia, hematuria, painful erection, as well as pain in the urethra and pelvis.<sup>2,6</sup> After a history is carefully obtained, radiological screening for the possible foreign body in the urethra and urinary bladder should be performed using direct x-rays, ultrasonography (USG), or CT. Different extracting techniques have been recommended according to the type and localization of the urethral foreign bodies. Methods such as meatotomy and transurethrosopic removal with a foreign body forceps and urethroscopy are more efficient in distal urethral foreign bodies close to the urethral meatus; while urethrocystoscopic extraction and suprapubic transvesical interventions might be used to extract the more proximally located foreign materials. Endoscopic methods have been recommended as the first step technique in extracting the urethral foreign bodies.<sup>2</sup> The authors also extracted the foreign body in the present case transurethrally using an endoscopic forceps. Rahman, et al. in their study of 17 male patients with self-placed urethral foreign bodies, reported that the foreign bodies were palpable in each case. The most frequent presenting complaint was dysuria in that series and the causes were reported as, in descending order: psychiatric disorders, substance use, and erotic stimulation. The authors suggested that radiological examinations should be performed in all cases to precisely determine the dimensions, localization, and a number of foreign bodies.<sup>7</sup>

Ersoy, et al. reported a 19-year-old patient who had inserted a piece of a pencil into the urinary bladder through the urethra. They endoscopically extracted the foreign body and suggested that the endoscopic approach should be the first choice treatment method in these cases.<sup>8</sup>

In the current case, the foreign body was advanced to the urinary bladder through a perforation of the bladder from the vaginal site. The differences from the cases in the literature are the manner of introduction into the bladder as well as consistent hiding and denial of the event by the patient. The presence of the foreign body was clearly demonstrated by pelvic US and MRI. Following the successful extraction of the foreign body endoscopically, the department of psychiatry was consulted. However, the patient refused psychiatric consultation. Keeping the urinary catheter in place for one month resulted in spontaneous closure of the injury

at a point between the bladder and vagina, which caused urinary leakage.

This case supports the opinion that the first choice treatment should be endoscopic methods in extracting foreign materials from the urinary bladder and urethra. When a foreign body is suspected to be present in the urinary bladder, correct history taking and rapid diagnosis are important steps.

In conclusion, urological evaluation of patients presenting with nonspecific symptoms such as dysuria and suprapubic tenderness may disclose surprising diagnoses such as foreign bodies in the urinary bladder. Conservative approaches such as urethral decompression may also be used in the treatment of fistulas developed between the urinary bladder and vagina.

### Conflicts of interest

*The authors declare that they have no financial or non-financial conflicts of interest related to the subject matter or materials discussed in this article.*

### References

1. Datta B, Ghosh M, Biswas S. Foreign Bodies in Urinary Bladders. *Saudi J Kidney Dis Transpl.* 2011; **22**: 302 – 305.
2. Eckford SD, Persad RA, Brewster SF, Gingell JC. Intravesical foreign bodies: five-year review. *Br J Urol.* 1992; **69**: 41 – 45.
3. Kochakarn W, Pummanagura W. Foreign bodies in the female urinary bladder: 20-year experience in Ramathibodi Hospital. *Asian J Surg.* 2008; **31**: 130 – 133.
4. Trehan RK, Haroon A, Memon S, Turner D. Successful removal of a telephone cable, a foreign body through the urethra into the bladder: a case report. *J Med Case Reports.* 2007; **1**: 153 – 155.
5. Ayyildiz A, Gürdal M, Nuhoglu B, Ersoy E, Huri E, Germiyanoglu C. A foreign body self-inserted via the urethra into the bladder: pocket battery. *Int Urol Nephrol.* 2003; **35**: 251 – 252.
6. Walsh P, Moustafa M. Retention of urethrovaginal foreign bodies: case report and literature review. *J Emer Med.* 2000; **19**: 241 – 243.
7. Rahman NU, Elliott SP, McAninch JW. Self-inflicted male urethral foreign body insertion: endoscopic management and complications. *BJU Int.* 2004; **94**: 1051 – 1053.
8. Ersoy H, Saġnak L, Topaloġlu H, Bakırtaş H, Şahin E, Kiper A. An extremely rare foreign material in the bladder: a piece of pen. *Gulhane Med J.* 2007; **49**: 181 – 182.