



Self-Insertion of Urethral Foreign Body: Performing Azayem Procedure for Metal Forceps Removal from Urethra

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Abstract

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BACKGROUND: Self-inserted male urethral foreign bodies are urological emergencies that we as urologists might have to deal with in the future. The number of case self-inserted foreign bodies has been increasing, respectively, the last decade, especially in male patients.

CASE REPORT: We report a case of a 27-year-old male with a self-inserted foreign body (forceps) into the urethra and the evacuation using the Azayem procedure. The presentation consists of the clinical features of this patient, including medical history, signs, and symptoms, imaging examinations were recorded. After diagnosis and endoscopic preparations, the procedure to evacuate a self-inserted foreign body was performed. We performed the Azayem procedure on the patient who was complaining of dysuria, hematuria, pyuria, and palpable urethral foreign body caused by forceps that were self-inserted 11 days before admission. Azayem procedure is a simple endoscopic technique for removing the metal hair removal forceps from the urethra. We, then, treated the urethral injury and the infection as the most concerning complications. Psychology follow-up by psychiatrist, urethrography, and International Prostate Symptom Score evaluation was taken as the follow-up post-procedure. A self-inserted foreign body is a rare case and life-threatening related to urosepsis caused by the late intervention. The variety of foreign bodies inserted into the urethra includes forceps.

CONCLUSION: Azayem procedure is an effective approach to evacuate forceps as the urethral foreign body, because this endoscopic procedure is relatively simple to perform and has a minimal procedural complication.

Introduction

Self-inserted male urethral foreign body is a rare emergency that urologists and general surgeons may encounter. Numerous foreign bodies inserted into or externally attached to the genitourinary system are unimaginable and cover all types of objects. Common causes of foreign bodies being inserted into the genitourinary system are sexual curiosity, autoeroticism stimulation, or invasive procedures [1]. Inserting a foreign body into the urethra is a rare practice known to involve all possible objects. In a series of 20 adults aged 9 years and older, the incidence of lower urinary tract insertion of foreign bodies is low, with men being 1.7 times more likely to behave than women. The average age of people is 35.8 ± 20.0 years [2].

Patients usually feel embarrassed after this and tend to avoid seeing a doctor immediately. The urological effects of this type of behavior can be significant, and the effects on patients, including death from sepsis, can be serious [3]. We present a case of self-insertion of forceps into the urethra, and discuss clinical symptoms as well as patient diagnosis and treatment.

Case Presentation

A 27-year-old male came to the Emergency Room at Ulin Hospital Banjarmasin, complaining of penile pain that had been felt a week before admission and had worsened for several hours, and hematuria complained after 2 days. The patient confessed that he had inserted a hair forceps into the urethra 2 weeks ago to satisfy his sexual desire. He first inserted the base of the forceps and then could not remove it. The patient also complained of painful urination. Although, he was able to urinating without any sign of obstruction.

Physical examination showed no distention of the bladder. External urethral opening within normal range. A solid object extending from the inner shaft of the penis to the penile junction was palpable. During the urine test, the urine found appeared cloudy and the white blood cells were +3. Urinary sediment found leukocytes > 100/HPF, oxalate crystals, and bacteria. An X-ray examination found a foreign body 5 cm from the urethral meatus (Figure 1). A pelvic CT scan showed 8.51 cm of metal in the form of forceps (Figure 2).

The patient was taken to the operating room and received intravenous prophylactic antibiotics prior



Figure 1: Lateral pelvic X-ray, shows the forceps base distance to urethral orifice

to surgery. The patient received a spinal subarachnoid anesthesia and was initially placed in an inclined position. When urethrography was performed in the operating room, forceps-like foreign object was found from the central part of the penis (penile urethra) to the bulbous urethra, and extravasation of contrast was found at the distal and proximal ends of the foreign object. The contrast was able to penetrate the bladder (Figure 3).



Figure 2: Pelvic CT scan 3-dimension, viewed from (left) right anterosuperior, (middle) left antero-superior at umbilical level, and (right) right lateral

The patient was then placed in the lithotomy position. Urethroscopy revealed defects in the urethra of the penis and bulbs. The forceps were evacuated using the Azaim method. Using endoscopic technology, change the biopsy clamp to clamp the distal end of the forceps, then the assistant compresses the distal end of the forceps from the outer penis, then the forceps was pulled out by the biopsy clamp from the urethra.

Urethrocystoscopy revealed defects in the urethra and bulbs of the penis that appeared dark at 12 o'clock. At the end of surgery, a 16 fr silicone urethral catheter with a sachse guide was placed. Ciprofloxacin was given to treat lower urinary tract infections. The patient was consulted with a psychiatrist. Patients did not give a clear answer to the assessment of sexual orientation. However, the patient had a feminist style. Diagnosed by



Figure 3: Urethrography showed a forceps shaped foreign body

a psychiatrist with other stressful life events affecting family and home (ICD 10, Z63.7). During the interview, the patient responded inconsistently and required further monitoring for a final psychiatric diagnosis, and the patient was advised to follow-up with psychiatry.

Discussion

Especially in male patients, it has been reported that the number of self-injured foreign bodies in the urethra and bladder has increased in the past 10 years [3]. Inserted objects included plastic forks, spoons, metal screws and aluminum, cardboard or pieces of paper, staples, and writing utensils such as pens and pencils, coaxial cables, and spray foam sealants [4].

In the literature, the clinical presentation of a penile urethral foreign body is varied – ranging from asymptomatic to abdominal or penile pain, swelling of glans or the body of the penis, dysuria, dyspareunia, microscopic or macrohematuria, pyuria, pollakiuria, strangury, urinary retention, and fever. Presentation delays are often the result of confusion and, inevitably, follow multiple attempts at removal with the risk of damage to the urethra and the movement of foreign bodies [2]. The most common way to confirm a diagnosis is a physical examination. Foreign bodies located distal to the genitourinary diaphragm are easily palpable. Pelvic x-rays and computed tomography of the abdomen and/or pelvis help determine the location, orientation, relationship, and branching of the foreign body to the surrounding internal organs [2]. Pre-operative imaging is recommended, starting with plain X-rays, and ending with pelvic/genital computed tomography of radiation-permeable foreign bodies [4].

Treatment principles include non-traumatic removal of foreign bodies, repair of urethral injuries, and treatment of infections [5]. A timely assessment of your medical history and physique is recommended to determine the size and position of the objects and to optimize efficient extraction. For small distal objects, manual extraction can be done if possible, but in most, other cases cystoscopic capture and extraction are successful. If there is a small, mobile foreign body, and no visible hematuria, it can be removed manually with minimal trauma to the distal urethra [4].

Gross hematuria in patients with large, immobile urethral foreign bodies may indicate effects on the urethra. Such presentations ensure direct cystoscopic visualization before attempting endoscopic manipulation and extraction [4]. Endoscopic removal is common. In this case, only a small percentage (3–15%) require an open-operative approach such as a urethral incision. Earlier series reported that about half of the posterior urethral foreign bodies (above the urethral diaphragm) had to be removed openly rather than endoscopically, and those below the urethral diaphragm could be easily removed with an endoscope [5].

Urethral incision and removal are not recommended unless clearly required. Urethrotomy and extraction are not recommended unless clearly required. Anterior cystostomy and extraction can be performed only for larger objects with the significant intravesical components to prevent urethral trauma caused by urethral extraction [4].

The Azayem procedure is a simple endoscopic technique that removes metal forceps by applying external pressure to the surgeon's assistant through the penile shaft to the palpable side of the forceps to open the open end of the forceps, and ask to close. Body forceps are inserted through the cystoscope and the distal closed end of the metal forceps is kept in sight and pulled out of the urethra [6].

Due to urethral manipulation, empirical Gram-negative antibiotics are recommended for at least 7 days of coverage in all patients. Long-term follow-up is recommended for these patients, as some complications can occur as a result of trauma [4].

Various related complications can occur, including direct lower urinary tract injury, urinary tract infections, calcification and stone formation, fistula formation, and urethral stricture [5]. Complications from the former procedures are rare, but include infections, fistulas, urethral strictures, diverticulum, and incontinence. Of these, urethral stricture (5% incidence) is the most common late complication. Therefore, proper follow-up is essential to monitor the development of complications [2].

Psychiatric counseling may be appropriate. Due to the high incidence of recurrence, it is essential to educate patients about long-term consequences and possible future dysuria to avoid repetition [4]. Although motivations

for insertion vary, sexual satisfaction is common (some case series report 10–52%) and is associated with delayed presentation [5]. There are several psychoanalytic theories that have been hypothesized to explain the self-insertion of sexual satisfaction devices. According to Kenny's theory, the triggering event is a pleasant stimulus of the urethra discovered by chance, after which this action is repeated with an object of unknown danger caused by a special psychological predisposition to sexual satisfaction [3]. Wise believed that urethral manipulation was a paraphilia that combined elements of sadomasochism and fetishism, with an individual orgasm depending on the presence of the fetish. He believed that it showed a regression of eroticism to the urethral stage due to a traumatic event or a strong libido urge. Many authors consider psychiatric assessments of all these patients as some theories consider these behaviors to be inherently self-punishing and impulsive behaviors that can lead to suicide. This can be controversial, as many of these patients are psychologically normal [3].

In summary, self-inserting foreign bodies are rare, life-threatening, and urinary sepsis-related cases caused by being too late to seek medical assistance. Various foreign bodies that are inserted into the urethra include forceps. The Azayem procedure is an effective approach for expelling forceps as a foreign body in the urethra. This endoscopic procedure is relatively easy to perform and has minimal complications. We also recommend incorporating psychiatry to prevent recurrence.

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