Endoscopic removal of self-inflicted urethral foreign body: A case report

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ABSTRACT

A 64-year-old patient came to urology OPD with a manually inserted electric wire piece in the urethra. A plain X-ray KUB confirmed the location of an electric wire in the urethra extending to the bladder. He was scheduled for a cystoscopy, on which it was observed that there was an electric wire piece present in the urethra, which was removed under direct vision. There were no postoperative complications.

This case report provides a brief overview of the condition presentation and evaluation. The key consideration for the management of such cases with review of the literature are discussed in detail.

1. Introduction

Foreign bodies of the lower urinary tract are increasingly being reported in the literature which were previously thought to be uncommon. The variety of these objects includes sharp and lacerating objects (needle, pencil, wire, safety pin), thermometer wire-like objects (cable, rubber tube, telephone wires, feeding tubes, straws), parts of animals (bones) or plants and vegetables (hay, cucumber), fluids (glue, hot wax) and powders (cocaine). The reasons for self-instrumentation of the urethra or external genitalia can be classified as autoerotic, psychiatric, therapeutic, or accidental (see Figs. 1–3).

This report discuss a case of a 64-year-old hypertensive male who presented in urology OPD with an electrical wire piece inserted in the urethra. Elective surgery under cystoscope was undergone for the removal of foreign body. The purpose of this case report is to provide a brief overview of the condition and key management considerations for such cases with review of the literature.

2. Case presentation

A 64 years old male patient known case of hypertension presented in OPD of urology with foreign body insertion (an electric wire piece which got stuck inside his urethra). The patient complaint of voiding difficulty and pain for about 2 months. The pain was gradual in onset and throbbing in nature presented at the urethra and suprapubic region associated with dysuria and burning micturition. He also had a history of painless hematuria with blood clots (1–2 elongated about the shape and size of “rice grain”) 8 months back. Detailed history revealed to relieve voiding, he inserted electric wire piece as a self-treatment. There is also a history of undocumented weight loss as well as urgency, frequency averaging around 7–8 times in a day and nocturia around 3–4 times. He had a history of smoking about 8–10 cigarettes per day. No history of pus discharge, external trauma, bleeding diathesis, or anticoagulant drugs. No formal history of psychiatric disorder, however he was on Alprazolam medication for sleeping. The patient was sexually inactive for last 3 years.

The patient was vitally stable. On physical examination, there was mild suprapubic tenderness and a hard wire piece palpable inside the urethra. No urethral discharge or sign of inflammation presented. A Plain X-ray KUB confirmed the location of the foreign body in the urethra extending to the bladder. (Fig 1). On the cystoscope piece of electric wire in urethra was visible (Fig 2).

Elective surgery was planned for foreign body removal by cystoscopy under Local anesthesia. After all aseptic measures, Xylocaine 5% inserted in urethra, dilatation of urethra was done till 26F dilators and cystoscope inserted and foreign body seen. An electric wire piece of about 18 cm was extracted from the urethra by forceps under direct vision (Fig 3). On post procedure inspection, there was no urethral bleeding or mucosal injury.

3. Discussion

A large number of self-inflicted foreign bodies have been reported in the male urethra and urinary bladder. The results of Alibadi et al. study revealed that auto-eroticism is the major cause of self-instrumentation (33%), overt psychiatric grounds in 11% of cases, self-therapeutic in 39% cases, and no specific reason in 17% cases. According to another study the most prevalent reason for insertion of the foreign body was...
psychiatric disorder, followed by intoxication, and sexual gratification however, psychiatric evaluation is controversial as it may not always be essential present in such patients. At the time of urethral self-instrumentation presentation, determining symptoms, causes of self-infection, and the procedures for identifying the location, nature, and complications of the foreign body should be the key considerations for management. Patients with a urethral foreign body usually present with features of acute cystitis and urethritis. Clinical presentation ranges from swelling of the external genitalia, severe pain, urinary frequency and dysuria, urinary retention, bloody or purulent urethral discharge, and ascending urinary tract infection to no specific symptoms other than a visible foreign body and presentation of symptoms mainly as a result of complication. Moreover, patients with the urethral foreign body are usually found hesitant to consult a doctor possibly due to feelings of guilt and embarrassment.

Endoscopic inspection by X-ray film, excretory urograms or cystograms, and ultrasound imaging is sufficient enough to detect any foreign body in the urethra. Plain films of the pelvis are usually adequate to evaluate radio-opaque items and computed tomography or ultrasound can be employed for non-opaque foreign bodies.

Appropriate removal technique depends on the kind of foreign material and its location, including meatotomy, cystoscopy, internal or external urethrotomy, suprapubic cystostomy, Fogarty catheterization, and solvent injection. Foreign bodies of the bladder and urethra have been treated in a variety of ways, from dissolving wax and candle grease with xylol to endoscopic removal with clamshell forceps and Lowsley gripping forceps. Removal of the foreign body may be quite challenging requiring thoughtful and high-level surgical skills.

Cystoscopy has been used for the retrieval of screws as well as magnetic retrievers for galvanic objects. In cases where endoscopic procedures are unsuccessful, then open surgery is considered. For objects stuck in the penile urethra, external urethrotomy is recommended, whereas, for intravesical foreign bodies a suprapubic cystotomy is the treatment of choice. An appropriate therapy should be undertaken as soon as possible to avoid complications such as urethral laceration, urethral diverticulum, periurethral cellulitis, and acute urinary retention.

4. Conclusion

This case emphasizes key management considerations, when challenged with such urological emergency. To determine the size and position of the item and to enhance efficient extraction, a timely evaluation with proper history, examination and appropriate imaging is recommended. Foreign bodies just below urogenital diaphragm can be effectively removed through endoscopy, for foreign bodies above the diaphragm necessitated more endoscopic manipulation or open surgical operations. However, a more holistic approach to management is required, including not only infection control practices but also minimizing further urethral injury, assessing and documenting more serious underlying injury, and monitoring of delayed complications. Moreover, a thorough evaluation of psychiatric issues is also essential which may prevent any future episodes.

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Declaration of competing interest

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