SAS Journal of Surgery
Abbreviated Key Title: SAS J Surg
ISSN 2454-5104
Journal homepage: https://saspjournals.com/sasjs/

OPEN ACCESS

Unusual Foreign Body (Wire of Fishing Hook) in the Urethra and Urinary Bladder: Case Report

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DOI: 10.21276/sasjs.2019.5.7.7 | **Received:** 20.07.2019 | **Accepted:** 27.07.2019 | **Published:** 30.07.2019

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Abstract | **Case Report**

Background: Foreign bodies in the lower urinary tract are relatively uncommon. A thorough history and physical examination besides imaging are crucial for early proper management and to avoid possible complications. Most of these cases can be managed safely by endoscopy. Here we report a case who inserted an unusual foreign body (the wire of a fishing hook) in the urethra and bladder after chewing a large amount of qat. ***Case presentation:*** A 28 year-old male presented to our emergency room after self-insertion of a fishing hook wire which was stuck and could not be retrieved. After imaging that showed the kinked wire in the urethra and urinary bladder, patient was shifted to operating room where urethroscopy was done using 9 Fr. ureteroscope after failure to pass the usual scope to the bladder. The wire was seen clearly in the urethra with a knot at the bulbus urethra, the scope was then advanced to the bladder where another knot was found. So, percutaneous suprapubic cystoscopy was done using 15 Fr. meni-nephroscope where the bladder part of the wire was retrieved through the suprapubic puncture while the urethral part was retrieved through a perineal urethrotomy incision and a silicon catheter was left draining for 10 days. Patient was then scheduled for 6-month follow-up. ***Conclusion:*** Accurate evaluation of cases with foreign body introduced to the lower urinary tract is crucial for proper management and to avoid possible complications. Most of these cases can be managed safely by endoscopy; however, few cases may require complementary open surgery. Follow-up in these cases is critical for monitoring possible complications.

Key words: Foreign body, urethra, urinary bladder, self-insertion.

INTRODUCTION

Foreign bodies in the urethra and urinary bladder (UB) is relatively rare; however, several cases have been reported in the literature [1-7]. Most foreign bodies in the lower genitourinary tract are self-inserted via the urethra for exotic impulses, or because of psychometric problems, sexual curiosity, or sexual practice while intoxicated [7]. Work-up for such cases needs thorough history taking, clinical examination and may need imaging studies to be done.

Management of these cases can be achieved mainly by endoscopic procedures, despite that some of them may need surgical intervention. We herein present a case report of unusual foreign body, the wire of a fishing hook, urethra and UB.

CASE PRESENTATION

A 28 year-old male presented to the emergency room (ER) with a recent history of impacted wire of a fishing hook in the urethra for more than 12 hours. Patient claimed that he inserted it into urethra in a trial to relieve retention of urine that happened after chewing big amount of qat (a flowering plant native to the Horn of Africa and the Arabian Peninsula that contains the alkaloid cathinone, a stimulant, which is said to cause excitement, loss of appetite, and euphoria). After insertion, he had burning pain in the urethra, difficulty of voiding and dribbling of blood tinged urine. Patient has no history of any lower urinary tract symptoms before insertion of the foreign body.

Physical examination was unremarkable except for a long wire of fishing hook coming out of the urethral meatus without any abnormality in it. The wire was impacted and could not be pulled out of the urethra (fig. 1, a & b). A trial for gentle pulling of the wire out from the urethra was done but was unsuccessful as the wire was markedly kinked inside the urethra and fixed with a knot that was felt in the bulbar urethra through the perineum. So, patient was admitted and started parenteral antibiotic. Laboratory investigations showed microscopic hematuria in urine examination but no

infection and otherwise normal serum electrolytes, renal profile and CBC. Plain x-ray pelvis showed the negative shadow of the wire knot in the area of bulbar urethra (fig: 2) and retrograde urethrogram showed normal filling of the urethra and UB with the wire seen as filling defect along the urethra (fig. 3).

After giving an informed consent, patient was shifted to surgical theatre for urethrocystoscopy and for removal of the wire. Urethroscopy was done first using 19 Fr. Cystoscope sheath. During the procedure the translucent fishing wire could be seen clearly in the urethra and was followed till bulbus urethra where a knot was seen clearly, we tried to bypass this knot and to advance the scope up to the bladder, but we could not. Then we tried to pull the knot together with the wire out of urethra with flexible grasper, but we failed again, as the wire was stuck beyond the urethra. The scope was then removed and 9 Fr. Ureteroscope was introduced through the urethra and successfully bypassed the knot and advanced easily up to UB but unfortunately, another bigger knot was seen in the UB. So, decision for suprapubic percutaneous Cystoscopy was taken and a suprapubic puncture of UB was done using chiba needle with introduction of a guidewire, then the tract was dilated using Alken telescopic dilators over the guidewire then a 20 Fr. Amplatz sheath was introduced over the dilators that were removed and 15 Fr. Mini Nephroscope was introduced through the sheath to UB. At this point, we tried again to remove the knot and wire using tricuspid grasper but the wire knot in the bulbus urethra was fixing the wire that we could not pull it out. So, the wire was cut at the level of the bladder neck using the urethrotomy knife through the scope and extracted by the tricuspid grasper smoothly. The knot in the bulbus urethra and the rest of the wire were extracted via a perineal urethrotomy that was done over the felt perineal knot. The wound was then closed in layers, with 16 Fr. Silicon urethral catheters which were removed after 10 days.

The postoperative period passed smoothly. The patient received a complete inpatient psychiatric evaluation post-operatively and was subsequently discharged home in the next postoperative day and scheduled for removal of the urethral catheter 10 days later in the outpatient clinic. Patient was then scheduled for follow-up and fore uroflowmetry 1 month later. In the following follow-up visit, patient had no urinary complaint and had a normal uroflow curve.

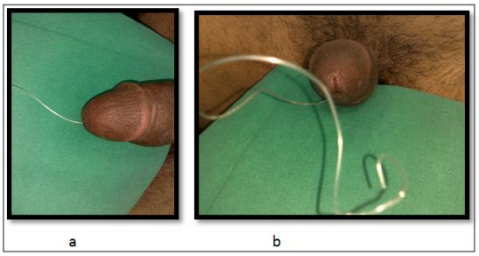

Fig-1: thread of fishing machine coming out from the urethra

Fig-2: Negative shadow in bulbar urethra

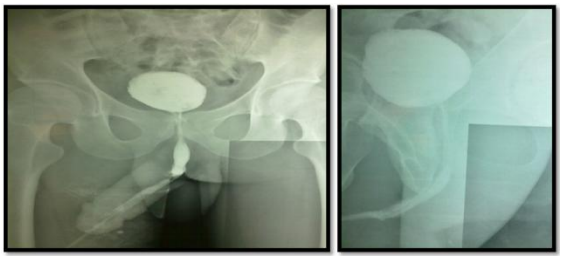

Fig-3: Retrograde Urethrogram: the urethra appears normal with the contrast reaching smoothly to the UB and the fishing wire is seen as a filling defect along the urethra

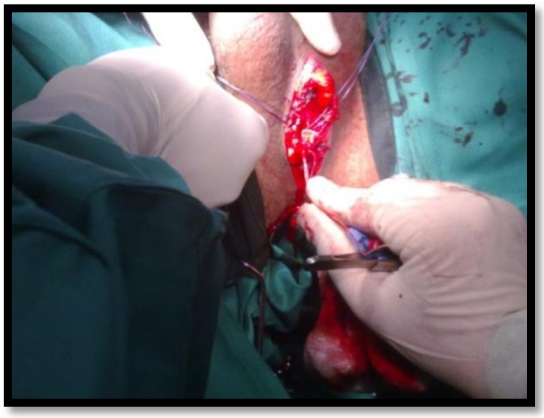

Fig-4: Perineal urethrotomy and the wire is seen clearly during pulling it out

Fig-5: wire after removal

DISCUSSION

Foreign body insertion in the lower genitourinary tract is unusual. But several cases have been reported. Possible causes include curiosity, auto-erotic stimulation, psychosexual disorder, drug intoxication and various medical procedures [1]. Self-infliction is more common in men than the women with a ratio of 7:1.(4) Motivation for self-infliction is mostly auto-erotic, other reasons are psychiatric disorders, mental confusion, narcotic drug intoxication etc. The inserted foreign bodies varied from very smooth and slippery substances to even rough and sharp objects like wire, screw, snake, mobile charging pin, head phone jack etc[1].

Most of these cases present early to the ER after failure of self-retrieval of the foreign body. Few cases have no urinary complaint and may present later with complications such as infection, stones, hydro-uretero-nephrosis or fistula formation [5, 8]. However, most of patients present with burning pain in the urethra, difficulty of voiding, bleeding per urethra and sometimes incontinence.

A thorough evaluation of such cases is crucial to provide proper management and to avoid possible complications. So, carful history taking and proper physical examination besides, radiological evaluation are mandatory for accurate diagnosis of the type, size and number of the foreign body and to determine its exact site.

Work-up in these cases usually includes urine examination and culture sensitivity test; plain X-ray of the pelvis and retrograde urethrogram.

In our reported case, the patient placed the wire of a fishing hook in a trial to relive urine retention, as he claimed, after chewing a large amount of qat which is known to be stimulant and cause euphoria. He tried to remove the wire by himself, but he could not retrieve it, so he presented to our ER after 12 hours with burning pain in urethra difficulty of voiding and drippling of blood tinged urine. Plain x-ray of the pelvis showed the wire shadow in the urethra and bladder and retrograde urethrogram showed normal filling of urethra and UB and the wire was seen as a filling defect along the urethra.

Endoscopy is the gold standard for removal of foreign bodies from the urethra and UB with a high success rate [1-4]. However, in few cases open surgery may be mandatory for removal of the foreign body safely. In our case we tried to remove the wire by minimally invasive endoscopic procedure which was successful via percutaneous suprapubic cystoscopy where we only removed the UB part of the wire because of the big knot in the bulbar urethra that hindered the removal of the whole wire. There was no way to remove urethral part except through perineal urethrotomy.

Finally, psychiatric consultation should be done to prevent further trials for insertion of other foreign bodies in the urinary tract [6]. Our patient received full psychiatric evaluation and cleared from psychiatry side. Delayed complications such as urethral stricture may occur, so follow-up is recommended if possible [7]. Patients with history of foreign body insertion in the urethra should be followed at least for 6-12 months to rule out the possibility of later urethral stricture, so we followed our patient for 6 months with uroflowmetry that showed good maximum flow rate.

CONCLUSION

The presence of foreign body in the genitourinary tract represents a urological challenge that often requires prompt and early intervention. Accurate evaluation of such cases is critical for proper management and to avoid possible complications. Endoscopic removal of these foreign bodies is often considered the treatment of choice. However, in some rare cases, open surgery may be necessary. Moreover, it is suggested that a psychiatric evaluation should be recommended in order to discover any underlying mental health disorders, thus reducing the risk of reinsertion of other foreign bodies.

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