

## CASE SERIES

# Self-inflicted Urethrovvesical Foreign Body Insertion: A Case Series

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Urethrovvesical foreign bodies involve foreign bodies in the urinary tract that extend from the urethra up to the bladder. These cases are infrequently encountered in urologic practice and the management can be complicated at times. Presented here are 3 cases of self-inflicted urethrovvesical foreign body insertions and discussions the strategies in its diagnoses and management. All three patients were men, with a median age of 40 years (range 30-60), and with mental health disorders. Two of the three patients underwent cystolithotomy, with the removal of the foreign bodies while one patient underwent a urethrocystoscopic removal of the foreign body. None of the patients have had any evidence of complications such as urethral stricture disease, or urinary incontinence at a mean follow up of 18 months after (range 12-24 months). The insertion of a foreign body in the urinary tract is a rare occurrence but is commonly a recurrent behavior. The management is aimed at the removal of the foreign object with the avoidance of complications. A thorough psychiatric evaluation must be included to fully evaluate the circumstances behind the act and to avoid future recurrences.

**Key words:** Foreign body, urethrovvesical

### Introduction

Urethrovvesical foreign bodies pertain to objects inserted in the lower urinary tract that extend from the urethra up to the bladder lumen and these cases are rarely encountered by urologists in clinical practice. Ingress of foreign bodies into the lower urinary tract may be made by self-insertion, by iatrogenic causes, by migration from an adjacent organ, or by penetrating trauma. An endless variety and different types of foreign bodies have been reportedly inserted into the urethra that defies the imagination.<sup>1</sup> The most common route of entry

is by self-insertion through the urethra mainly for sexual gratification, or associated with conditions such as dementia, psychological disorder, substance abuse or intoxication.<sup>1,2</sup> The prevalence of self-inflicted insertions of foreign bodies in the urinary tract is unknown and probably underreported, wherein the patient avoids a consultation due to embarrassment.<sup>2</sup> Hence, patients usually present when complications set in.

In this paper, the authors present 3 cases of self-inflicted urethra-vesical foreign body insertions, a review of the related literature, and discussion on their management.

## The Cases

### Case 1

A 60-year-old, male patient with global developmental delay presented with a 2-day history of urethral discharge, genital pain, and dysuria. On physical examination, there was a hard-edged palpable foreign body inside and along the length of the penile shaft up to the penoscrotal junction. Radiographic images of the pelvis revealed two radiopaque objects noted in the urethra and pelvic region (Figure 1A). Urethroscopy revealed a metallic foreign body located along the length of urethra and a coiled wire visible from the posterior urethra extending into the bladder lumen (Figure 1B). Urethrocystoscopic removal was done and the foreign bodies were found to be a metal tweezer and a piece of coiled metal wire (Figure 1C). Post-procedurally, the patient was managed with a urethral catheter that was removed after 7 days.

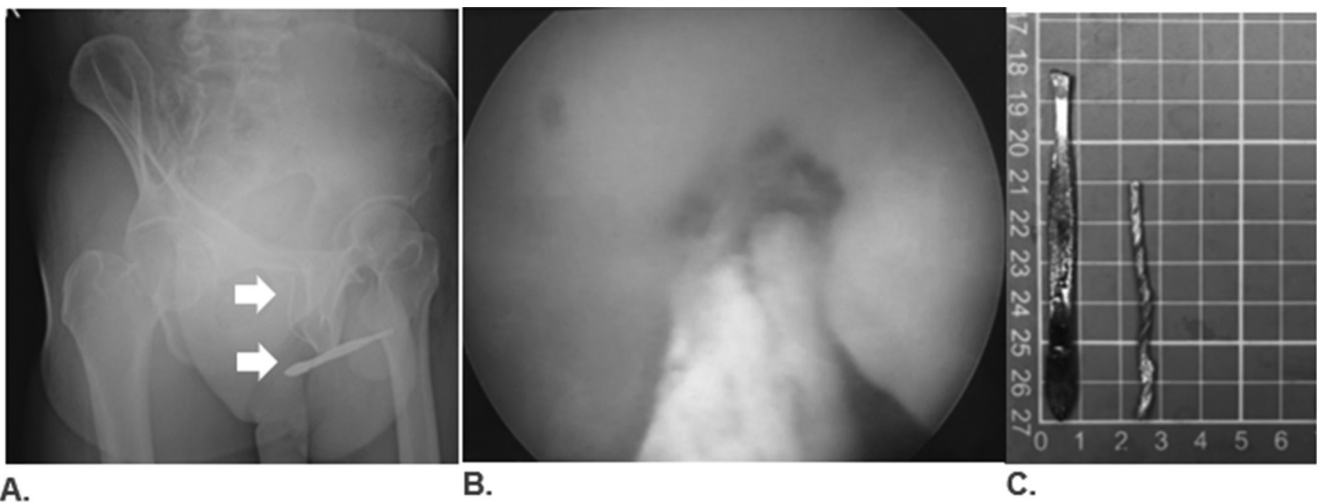
### Case 2

A 30-year-old, male patient with intellectual disability, came in due to dysuria and hypogastric pain with a microphone cable wire inserted per urethra of unknown duration. On physical examination, the distal end of the alleged microphone cable was seen inserted into the urethra and which is palpable along the length of the penis.

The radiographic image of the pelvis revealed a radiopaque object along the length of the urethra and which was noted to be coiled in the pelvic region (Figure 2). The patient underwent a bladder exploration with the removal of the foreign body.



**Figure 2.** Case 2: Preoperative radiographic imaging study of the foreign body in the pelvis (indicated by arrow).



**Figure 1.** Case 1: A) Preoperative radiographic imaging study of the foreign body in the pelvis (indicated by arrows), B) Cystoscopic appearance of the foreign body in the urethra, C) Actual specimen of the foreign bodies.

### Case 3

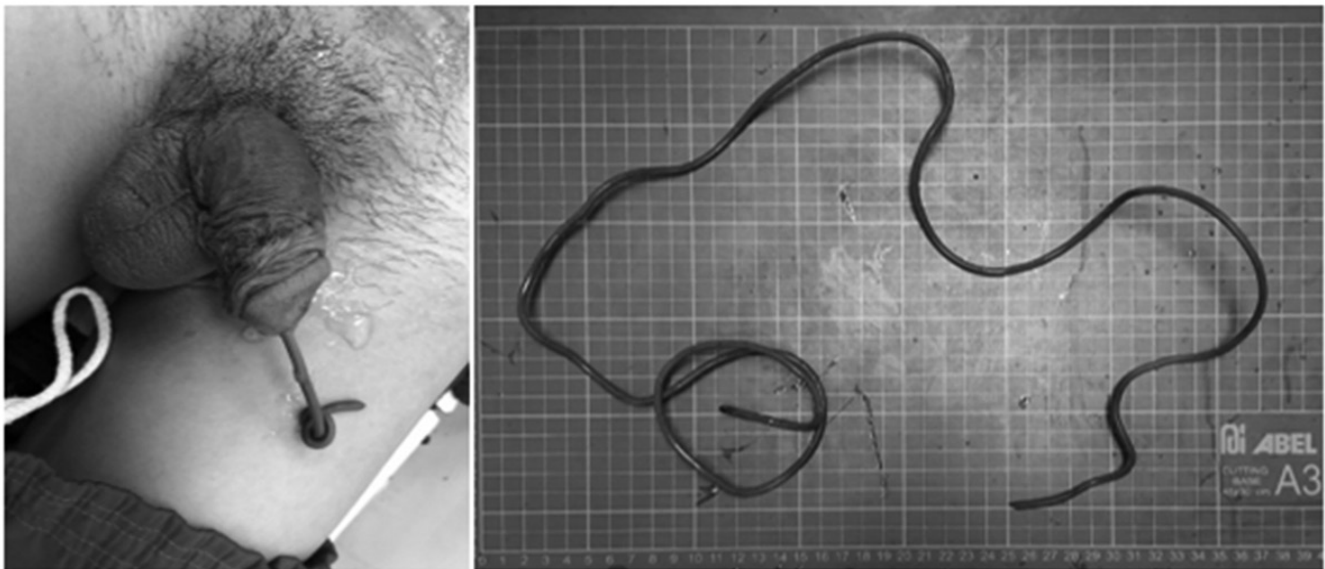
A 32-year-old male patient with an intellectual disability presented with 1-day history of dysuria and hypogastric pain. On physical examination, an insulated wire was noted to be inserted into the urethra that was palpated along the length of the penis (Figure 3A). A radiographic image of the pelvis revealed a radiopaque object inserted into the urethra which was noted to be coiled in the pelvic region. The patient underwent cystourethroscopy followed by a cystotomy with removal of the foreign body. An insulated metal wire was extracted and was noted to be coiled inside the bladder (Figure 3B).

### Discussion

Self-introduction of foreign body into the urethra is mainly performed for sexual gratification. It has been postulated that deep prostate stimulation-associated orgasms are thought to be more intense than those with direct penile stimulation, and involve more pelvic muscle contractions.<sup>3</sup> Furthermore, this act is oftentimes associated with psychiatric disorders and substance intoxication.

Hence, establishing the motivation for foreign body insertion is crucial to successful patient management. This may be facilitated by eliciting the patient's description of the psychological circumstance preceding the insertion, by comparing the actual effects of the insertion, and by taking a general psychiatric and developmental history.<sup>4</sup> Patients who present with self-inserted foreign bodies usually suffer from a psychiatric disorder, as observed in the 3 cases presented wherein patients have intellectual disabilities and delayed development.

There is a marked preponderance for male patients and foreign body retention is more common in males due to the significant length of the male urethra. Females are at an increased risk of foreign body migration into the bladder due to the short urethral length and straight trajectory of the female urethra.<sup>5</sup> The common clinical manifestations of urethrovvesical foreign body insertions are diverse – from asymptomatic to irritative and obstructive urinary tract symptoms, dysuria, urinary retention, urethral discharge, and hematuria. In extreme cases, foreign bodies may perforate the bladder and migrate into the gastrointestinal tract, or into the reproductive tract in females.<sup>5,6</sup> Some patients have had delayed presentation due to embarrassment or



**Figure 3.** Case 3: A) Preoperative image of the foreign body inserted in the urethra, B) Actual specimen of the foreign body removed.

remorse for the deed done while others attempt to remove the objects by themselves, risking additional urethral injury or migration further up the urethral tract.<sup>2</sup>

The evaluation of the patient focuses on ascertaining detailed information about the foreign body, its insertion and physical examination to establish the risk for trauma to the urethra, or bladder perforation. A pelvic radiograph usually suffices to diagnose the presence and location of the foreign body. In some cases, ultrasonography may be employed, or a computed tomography (CT) scan of the pelvic region in cases of a probable involvement of surrounding structures.<sup>6,7</sup>

The management should be aimed at removing the foreign object, avoiding complications, and not compromising the erectile function. The method of removing the foreign body should be selected based on its size, nature, morphology, and mobility.<sup>1,2</sup> The use of endoscopic methods, such as a urethroscopy and cystoscopy, is often successful enough in removing foreign bodies located in the lower urinary tract, as presented in the 1st case wherein 2 metal foreign objects were extracted under urethrocystoscopic guidance with ease. Cystoscopy following urethroscopy is warranted to check the urinary bladder for possible injuries and to ensure complete removal of the foreign bodies. In the event that endoscopic techniques are unsuccessful or deemed not feasible, more invasive procedures such as a urethrotomy or meatotomy may be performed for objects impacted in the penile urethra or through a suprapubic cystotomy for intravesical foreign bodies.<sup>5</sup> This was performed in the 2nd and 3rd cases wherein a urethro-cystoscopy was performed initially followed by a cystotomy to remove the foreign body that migrated into the urinary bladder. Although rare, complications may arise following these procedures that include urethral strictures, infections or urinary incontinence.<sup>5,6</sup> Close monitoring and designated follow-up are recommended to recognize and address these complications.

Moreover, patients with self-inserted urethral foreign bodies should also be evaluated for underlying psychiatric conditions and psychosocial issues which may necessitate further treatment. Proper identification and management of the patient's mental illness would be beneficial in controlling future recurrence.<sup>2,7</sup>

## Conclusion

Insertion of foreign bodies in the urinary tract is a rare occurrence and is commonly associated with a psychiatric problem. Definitive management is aimed at recovering the foreign body, by means of endoscopic or an open surgical approach, and avoiding future complications. All patients should undergo psychiatric evaluation to determine the motives behind the act which is crucial for patient management and avoiding future recurrences.

## References

1. Odoemene C, Onuh C. Foreign bodies in the urinary bladder – case series. *J West Af Coll Surg* 2017; 7(3): 124-36.
2. Bansal A, Yadav P, Kumar M, Sankhwar S, Purkait B, Jhanwar A, Singh S. Foreign bodies in the urinary bladder and their management: a single center experience. *Int Neurorol J* 2016; 20: 260-9.
3. Alwaal A, Breyer B, Lue T. Normal male sexual function: emphasis on orgasm and ejaculation. *Fertil Steril* 2015; 104: 1051-60.
4. Ahmed S, Alam A. An unusual foreign body in the urinary bladder: the art of management. *Hellenic J Surg* 2006; 88(4): 234-7.
5. Palmer C, Houlihan M, Psutka S, Ellis A, Vidal P, Hollowell C. Urethral foreign bodies: clinical presentation and management. *Urology* 2016; 97: 257-60.
6. Mak C, Cho C, Chan W, Chu R, Law I. Per urethra insertion of foreign body for erotism. *Hong Kong Med J* 2019; 25: 320-2.
7. Walsh P, Moustafa M. Retention of urethrovaginal foreign bodies: case report and literature review. *J Emerg Med* 2000; 19(3): 241-3.