

## Case Report

# Self-Inserted Urethral Foreign Body Perforating Both the Anterior and Posterior Urethra

Ai Morikawa, Masahiro Yamazaki, Maiko Komatsubara, Akira Fujisaki, Shinsuke Kurokawa and Tatsuo Morita\*

Department of Urology, Jichi Medical University, Japan

## \*Corresponding author

Tatsuo Morita, Department of Urology, Jichi Medical University, Yakushiji, Shimotsuke-shi, Japan, Tel: 81285587379; Fax: 8128 406595; Email: moritatu@jichi.ac.jp

Submitted: 10 February 2016

Accepted: 14 March 2016

Published: 16 March 2016

ISSN: 2379-951X

## Copyright

© 2016 Tatsuo Morita et al.

## OPEN ACCESS

## Abstract

Urethral perforation due to a foreign body self-inserted into the urethra is quite rare, although such foreign bodies themselves are not uncommon in clinical urologic practice. Two cases of a self-inserted urethral foreign body leading to anterior urethral perforation have been reported in the English-language literature. However, there are no case reports of urethral perforation or penetration at two sites of urethra due to a self-inserted urethral foreign body. Here, we report the first such case, which occurred in a 66-year-old man and involved a self-inserted metal bar (10 cm long, 3 mm diameter) perforating both the anterior and posterior urethra. As both the proximal and distal ends of the metal bar were outside the urethra in the prostate and scrotum, respectively, the metal bar was surgically removed via the scrotal skin. The patient was treated successfully by suprapubic cystostomy and an indwelling urethral catheter for immediate realignment, with appropriate drainage and antibiotic coverage. The findings of the present case suggest treatment planning based on the appropriate evaluation of urethral foreign bodies is important for the management of patients with urethral perforation due to urethral foreign bodies.

## Keywords

- Urethra
- Perforation
- Self-inserted
- Foreign body
- Metal bar

## ABBREVIATIONS

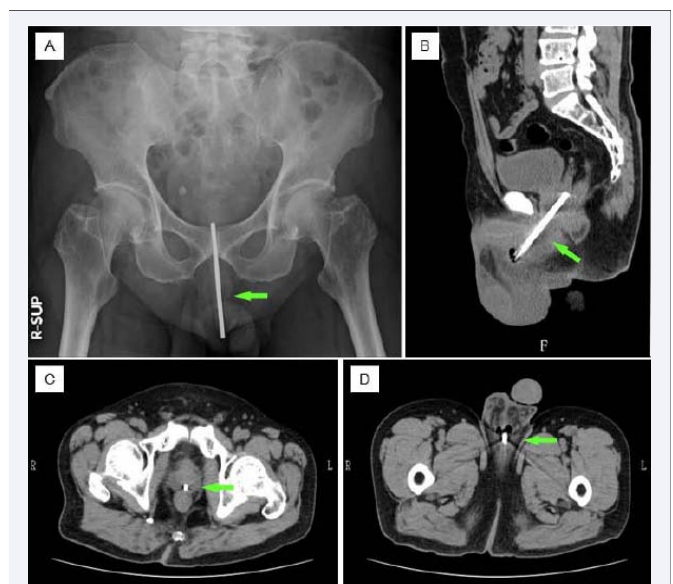
CT: Computed Tomography

## INTRODUCTION

Foreign bodies self-inserted into the urethra are not uncommon in clinical urology practice. Various kinds of self-inserted urethral foreign bodies have been reported, including pens, pencils, plastic tubing, and metal objects [1,2]. However, there are no case reports of urethral perforation or penetration at two sites of the urethra due to a self-inserted urethral foreign body. Here, we report the first such case, which occurred in a 66-year-old man and involved a self-inserted metal bar perforating both the anterior and posterior urethra.

## CASE PRESENTATION

A 66-year-old man presented with fever, frequent urination, miction pain, scrotal swelling, and perineal pain. He inserted a metal bar with ointment into his urethra to relieve urethral itching one week prior to presentation. Urinalysis showed pyuria. Plain pelvic X-ray revealed a radiopaque bar (Figure 1A). Computed tomography (CT) showed the proximal and distal ends of the self-inserted metal bar, which were palpable via the scrotal skin and rectum, in the prostate and scrotum, respectively (Figure 1B-D). Hence, the clinical diagnosis was self-inserted urethral



**Figure 1** Radiographic imaging. Plain pelvic X-ray (A) and sagittal CT image (B) showing a radiopaque self-inserted urethral metal bar (green arrows). Axial CT images showing the proximal end of the urethral metal bar in the prostate (C) and distal end in the scrotum (D).

metal bar with scrotal abscess and urinary tract infection. Cystourethroscopy performed under general anesthesia showed that the prostatic urethra and bulbar urethra were perforated by the metal bar (Figure 2). The bar was removed via a scrotal skin incision, because both ends were outside the urethra (Figure 3A, B). The bar measured 10 cm long and 3 mm in diameter (Figure 3C). A suprapubic cystostomy catheter and urethral catheter were left in place and monitored carefully for one month and two weeks, respectively. A drain was indwelled in the scrotum, and the scrotal skin was closed with antibiotic coverage. One year later, the patient was well without lower urinary tract symptoms.

## DISCUSSION

Urethral perforation by a self-inserted urethral foreign body is quite rare. Two cases of a self-inserted urethral foreign body leading to anterior urethral perforation have been reported in the English-language literature [3,4]. Bird et al., [3] report the case of an 82-year-old man with dementia who self-inserted a

pencil into his urethra, which perforated the anterior urethra and was successfully removed endoscopically. In addition, Singh et al., [4] report the case of a 38-year-old man who self-inserted gold chain in his urethra, which lead to urethral fistula; the patient was successfully treated with urethroscopic extraction of the gold chain followed by insertion of an indwelling urethral catheter. However, the case reported herein is the first report of a self-inserted urethral foreign body perforating both the anterior and posterior urethra. It is unclear how and why both the anterior and posterior urethra were perforated by the metal bar in the present case, because the patient appeared embarrassed and did not precisely disclose his history to clinicians, as is the case with most patients with a self-inserted urethral foreign body [1,2]. Grumet et al., [5] report that the most common motive for inserting foreign bodies into the genitourinary tract is sexual or erotic in nature, such as masturbation and other forms of sexual gratification or variations thereof. Plain X-ray, retrograde urethrography, cystourethroscopy, and ultrasonography provide sufficient diagnostic information including the precise size, shape, location, and number of foreign bodies required to plan interventions. However, in the present case, CT was very helpful for planning treatment for the urethral foreign body. In particular, the CT findings showing both ends of the metal bar were outside the urethra suggested it would be impossible to grasp the distal end of the metal bar endoscopically or push it into the bladder. Therefore, we employed open removal rather than endoscopic removal. Although endoscopic removal is the treatment of choice for most cases of urethral foreign bodies, open surgical removal is required for foreign bodies such as that in the present case or foreign bodies in the urethra above the urogenital diaphragm in some patients [1,2]. In addition, it is important to pay attention to postoperative complications, which include periurethral abscess, urethral diverticulum, urethral fistula, and urethral stricture. After the metal bar in the present case was surgically removed, the patient was successfully treated by suprapubic cystostomy and an indwelling urethral catheter for immediate realignment, with appropriate drainage and antibiotic coverage [1-4, 6,7].

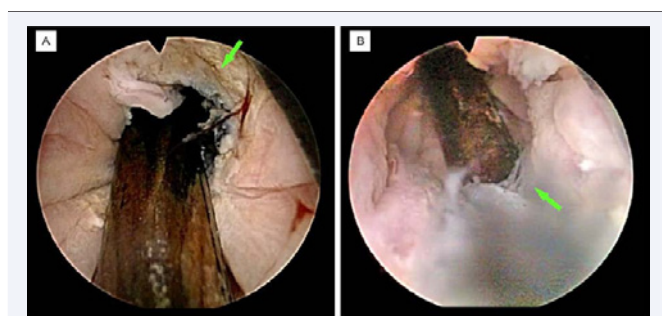
In summary, the findings of the present case suggest that treatment planning based on appropriate evaluation of urethral foreign bodies is important for the management of patients with urethral perforation due to urethral foreign bodies.

## ACKNOWLEDGEMENTS

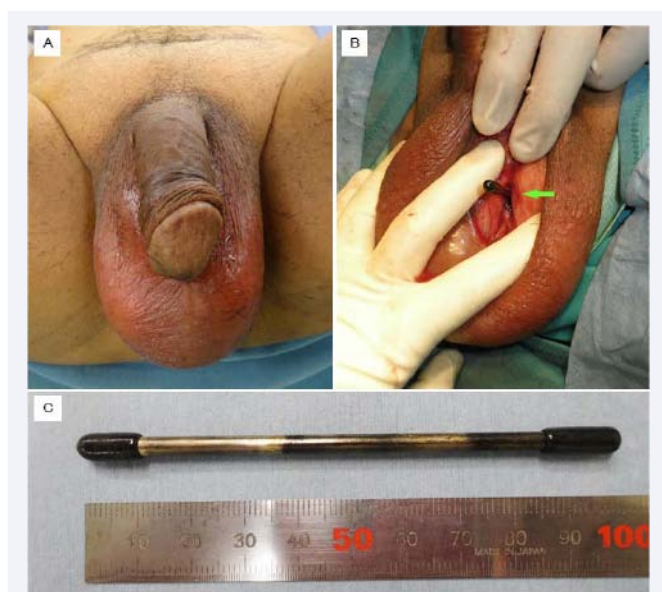
AM and TM drafted the manuscript. All authors were involved in patient care.

## REFERENCES

1. Aliabadi H, Cass AS, Gleich P, Johnson CF. Self-inflicted foreign bodies involving lower urinary tract and male genitals. *Urology*. 1985; 26: 12-16.
2. van Ophoven A, deKernion JB. Clinical management of foreign bodies of the genitourinary tract. *J Urol*. 2000; 164: 274-287.
3. Bird ET, Huckabay C, Waxman JA. Endoscopic evangelism: unique presentation and management of perforating urethral foreign body. *Urology*. 2004; 64: 1229-1230.
4. Singh O, Gupta SS. Urethral foreign body causing urethral fistula. *Urol*



**Figure 2** Cystourethroscopy. Perforation (green arrows) of the prostatic urethra (A) and bulbar urethra (B) by the metal bar at the 6 o'clock position.



**Figure 3** Macroscopic images  
(A) Preoperative scrotal swelling with edema  
(B) Removal of the metal bar (green arrow) via the scrotal skin incision  
(C) The metal bar was 10 cm long and 3 mm in diameter

- J. 2012; 9: 430-432.
5. Grumet GW. Pathologic masturbation with drastic consequences: case report. *J Clin Psychiatry*. 1985; 46: 537-539.
  6. Rahman NU, Elliott SP, McAninch JW. Self-inflicted male urethral foreign body insertion: endoscopic management and complications. *BJU Int*. 2004; 94: 1051-1053.
  7. Grant AA, Morse BC, Manning BM, Springhart WP, Flanagan WF. Penetrating posterior urethral injury: successful retrieval of an impacted missile with immediate endoscopic realignment. *Am Surg*. 2014; 80: 54-55.

#### Cite this article

Morikawa A, Yamazaki M, Komatsubara M, Fujisaki A, Kurokawa S, et al. (2016) Self-Inserted Urethral Foreign Body Perforating Both the Anterior and Posterior Urethra. *J Urol Res* 3(2): 1048.