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CASE REPORT

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An Unusual Case of a Metallic Foreign Body per Urethra

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Summary

Background: Foreign body in the lower urinary tract has a low incidence. Here we discuss a case of a safety pin within the bulbar urethra inserted by a young boy for sexual gratification, which was successfully removed under cysto-urethroscopic guidance.

Case Report: Herein we present a case of a 14-year-old boy who presented with complaints of perineal pain and dysuria. On evaluation in detail and from clinical history, we came to know that he had inserted a safety pin within the urethra. Urine analysis revealed microscopic haematuria and few pus cells. X-ray of the pelvis and computerised tomography helped in confirming the presence of the safety pin within the urethra.

Conclusions: The method of extraction of a foreign body per urethra depends on the size and shape of the foreign body. Cysto-urethroscopic removal is successful depending on the physical characteristics of the foreign body. It has the advantage of minimising urothelial trauma and also helps in assessing any previous mucosal injury or thickening. Psychological evaluation and counselling may help to prevent further such episodes.

MeSH Keywords: Cystoscopy • Exploratory Behavior • Foreign Bodies • Sexual Behavior • Urethral Stricture • Urethritis

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Background

Lower urinary tract foreign body insertion has a low incidence [1]. Here we discuss a case of a safety pin within the bulbar urethra inserted by a young boy for sexual gratification, which was successfully removed under cysto-urethroscopic guidance.

Case Report

A 14-year-old boy presented to the outpatient department of our hospital with complaints of pain in the perineum and burning pain during micturition. On evaluation in detail and from clinical history, we came to know that he had inserted a safety pin within the urethra for satisfaction of the sexual drive. He had no previous history of any significant psychiatric illness. His general condition was good. On clinical examination, the boy had severe local tenderness and something was palpable in the perineal region. Urine analysis revealed few pus cells and 2 to 3 RBCs per high power field. Conventional plain X-ray left anterior oblique view of the pelvis showed a radiopaque metallic foreign body (opened up safety pin) in the soft tissue plane anterior-inferior to the pubic symphysis (Figure 1). Ascending urethrography image under fluoroscopy guidance showed good opacification of the penile and bulbar urethra; no evidence of any extravasation of the contrast (Figure 2), CT non-contrast image of the pelvis showed a hyperdense metallic foreign body (opened up safety pin) in the bulbar urethra anterior-inferior to the pubic symphysis. There was no evidence of periurethral hematoma formation (Figures 3, 4). The safety pin was removed under urethrocystoscopic guidance (Figures 5, 6). Few mucosal abrasions were also noted within the penile urethra. The boy was discharged on the same day after proper psychological counselling.

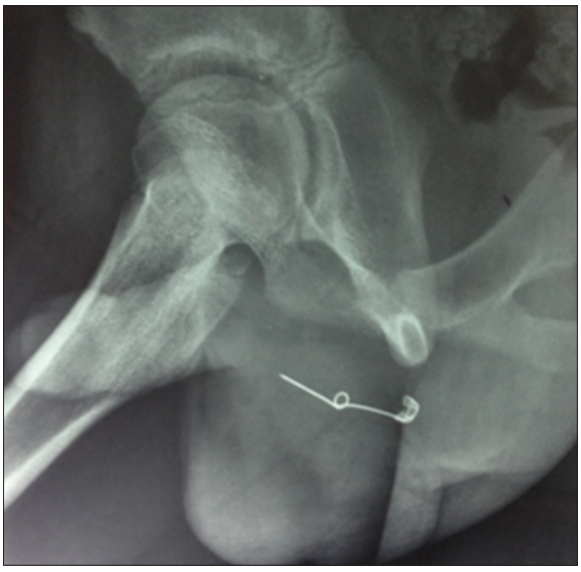

Figure 1. Plain X-ray left anterior oblique view of the pelvis shows a radiopaque metallic foreign body (opened up safety pin) in the soft tissue plane antero-inferior to the pubic symphysis.

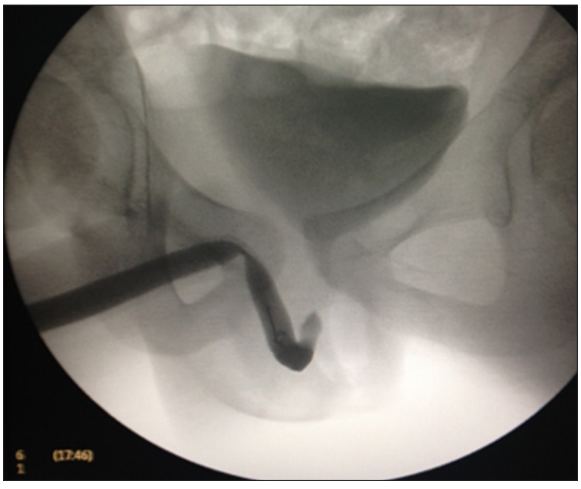

Figure 2. Ascending urethrography image under fluoroscopy guidance shows good opacification of the penile and bulbar urethra; no evidence of any extravasation of the contrast seen.

Discussion

A wide variety of foreign bodies have been reported to be inserted within the male urethra including needles, pencils, ball-point pens, wires, pins, batteries etc. [1]. The most prevalent motivation for self-insertion is autoerotism or psychological impairment [2]. The most common presentations are with local pain or swelling, dysuria, haematuria, urinary retention and strangury [3]. Most of them present late due to embarrassment, only after repeated removal attempts which in turn produces further mucosal injury and foreign body migration. On clinical examination, penile urethral foreign bodies are usually readily palpable. Pelvic radiography and computerised tomography are used for confirming the diagnosis. They also help in identifying the number, position and orientation of the foreign body and its relationship with the surrounding viscera [4].

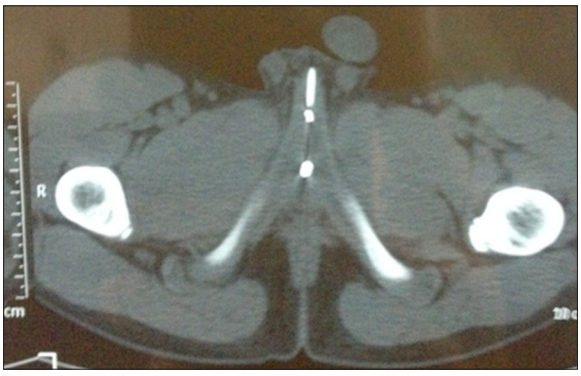

Figure 3. Axial plain CT image of the pelvis shows a hyperdense metallic foreign body (opened up safety pin) in the bulbar urethra. No evidence of periurethral hematoma formation.

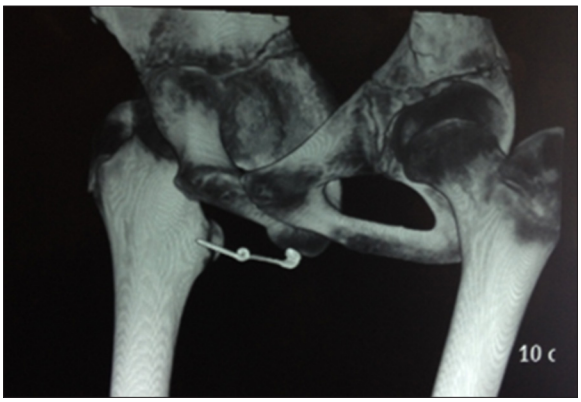

Figure 4. 3D reconstructed CT bone window of the pelvis shows a hyperdense metallic foreign body (opened up safety pin) antero-inferior to the pubic symphysis.

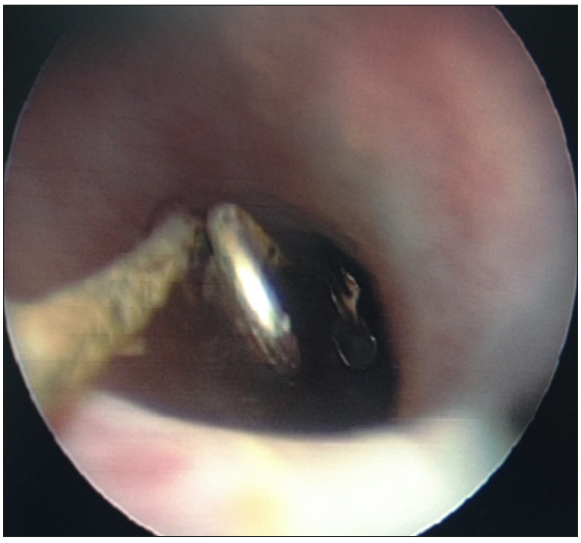

Figure 5. Urethroscopic removal of the metallic foreign body.

The method of foreign body retrieval will depend upon the size, shape and number of foreign bodies [5]. Foreign bodies in the anterior urethra, i.e. penile and bulbar urethra, can be successfully removed with the help of endoscopy. Following its complete removal, endoscopy also provides information regarding urothelial injury. For posterior urethral foreign bodies, more invasive procedures like

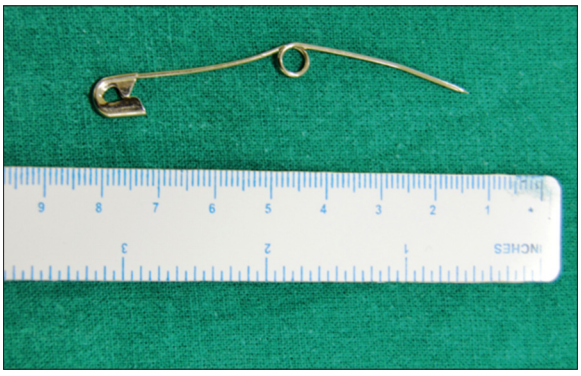

Figure 6. Clinical image of the removed metallic foreign body (opened up safety pin).

suprapubic cystotomy or external urethrotomy may be occasionally required [6].

Post-procedure complications include urethritis, urethral stricture, incontinence and fistula or diverticulum formation. Of these, the most common delayed complication is urethral stricture (5%) [6]. Therefore, follow-up is warranted to assess the development of complications.

Psycho-social analysis should be carried out before discharging the patient because this will prevent future similar episodes [4]. Few of them may be associated with known mental and cognitive disorders or personality disorders. Accidental and iatrogenic foreign body insertion per urethra is very rare.

Conclusions

Self-inflicted male urethral safety pin insertion is unusual. Most of them are inserted because of sophomoric curiosity, sexual curiosity or psychiatric illness. Appropriate clinical history and radiological investigations help in confirming the diagnosis. Minimally invasive procedures like endoscopy ensure its complete removal and prevent bladder and urethral injuries. Follow-up cystourethroscopy is important for diagnosing any complications like urethral stricture.

Learning points

- Self-imposed foreign body per urethra in males is very rare.
- Radiological evaluation helps in determining the exact location, number, size and alignment of foreign bodies.
- All patients should undergo psychiatric counselling.
- Late manifestations include urethral stricture, fistula or incontinence [5].

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