

## Case Report

# Unusual glass foreign body in the urinary bladder: a COVID-19 lockdown effect

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**Received:** 31 January 2022

**Revised:** 01 March 2022

**Accepted:** 07 March 2022

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### ABSTRACT

A variety of foreign bodies/objects have been recovered from the urinary bladder and urethra. However, trauma may also be a cause of delayed intravesical foreign body presentation. Delayed presentation with minimal bothersome symptoms and with no other associated organ injury is very unusual. As per available literature on urinary bladder FBs, this is the rare case in which isolated glass foreign body was recovered from urinary bladder. A 38-year-old male presented with complaints of pain in the lower abdomen after passing urine and occasional terminal haematuria after straining on stools, for 5-6 months. Patient gave history that he had a fall over glass table while dusting a ceiling fan 6 months ago. He had glass piece injury to left buttock. Due to COVID-19 lockdown he was unable to contact nearby health facility, so, he self-removed a glass piece from buttock wound. Patient was planned for cystoscopy with exploration and removal of foreign body under spinal anaesthesia. Detailed history and examination are of paramount importance in intravesical foreign body cases. Cross-sectional imaging should be done to rule out associated adjacent organ injury and retained foreign body parts. Sharp glass foreign body in urinary bladder should be removed via cystotomy in order to avoid mucosal injury by sharp edges.

**Keywords:** Foreign body urinary bladder, TRAUMA, COVID-19 lockdown, Cystotomy

### INTRODUCTION

A variety of foreign bodies/objects have been recovered from the urinary bladder and urethra.<sup>1,2</sup> Most foreign bodies in the lower genitourinary tract are iatrogenic (example missed stents, catheters, etc.) or self-inserted via the urethra (as the result of self-insertion, psychiatric problems, sexual curiosity, or while intoxication) or trauma and assault may also be a cause of foreign body in urinary tract. Of those who seek medical attention, haematuria, dysuria, urinary frequency, strangury and urinary retention are the most common presenting features.<sup>2</sup> In most cases, minimally invasive procedures such as endoscopic removal are recommended to prevent bladder and urethral injuries. In some cases, however,

surgical treatment should be done if the FBs cannot be removed by the endoscopic procedure or further injuries are expected as a result of the endoscopic procedures.<sup>3</sup>

Penetrating injuries to the genitourinary system usually present immediately. However, trauma may also be a cause of delayed intravesical foreign body presentation.

Delayed presentation with minimal bothersome symptoms and with no other associated organ injury is very unusual.

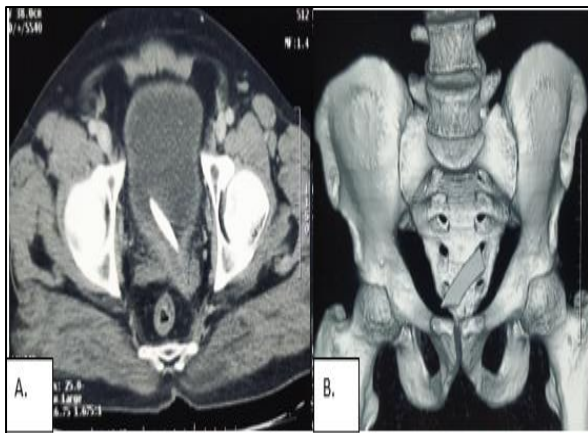
As per available literature on urinary bladder FBs, this is the rare case in which isolated glass foreign body was recovered from urinary bladder.

## CASE REPORT

A 38-year-old male presented to the urology OPD with complaints of pain in the lower abdomen after passing urine and occasional terminal haematuria after straining on stools, for 5-6 months.



**Figure 1: Scar over left buttock from where sharp glass object might have entered.**



**Figure 2: (A) CT Scan Films showing foreign body in urinary bladder. (B) 3D reconstructed image.**

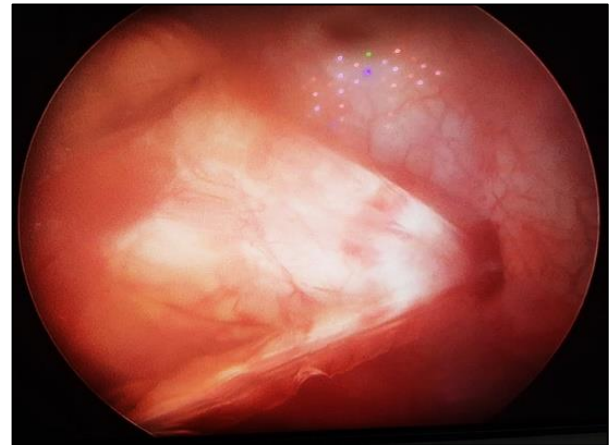
On further evaluation the patient gave history that he had a fall over glass table while dusting a ceiling fan 6 months ago. He had glass piece injury to left buttock. Due to COVID-19 lockdown he was unable to contact nearby health facility, so, he self-removed a glass piece from buttock wound. As per patient he had cleaned the wound with antiseptic and after few minutes, bleeding and pain subsided. He had taken analgesics for 2 days. No past history of self-insertion/ psychiatric issues or comorbidities.

Physical examination was unremarkable except a scar over left buttock (Figure 1).

Routine urine showed microscopic haematuria and few pus cells. Ultrasound KUB showed a ill-defined

echogenic structure likely foreign body. CT KUB was done and it showed a radio dense sharp foreign body in urinary bladder with a fibrous tract up to skin surface (Figure 2A, 2B).

However no other organ injury was noted, which was very unusual. Patient was planned for cystoscopy with exploration and removal of foreign body under spinal anaesthesia. On cystoscopy a transparent sharp foreign body with well-defined edges was noted, however left edge was sharp and touching the left lateral bladder wall with bleeding point (Figure 3).



**Figure 3: Cystoscopy appearance of left edge of foreign body in relation to bladder wall.**

Gentle manipulation of foreign body was done and it was found to be free from bladder wall. Owing to sharp edges and considerable size of glass like object, open surgical removal technique (Pfannenstiel incision and open cystostomy) was preferred to avoid the breaking of the glass if tried endoscopically. A 6 cm long and 1.2 cm wide glass piece was removed through cystostomy (Figure 4).



**Figure 4: Glass foreign body after removal.**

The postoperative period was unremarkable and the patient was discharged 1 day after the operation. Follow-up was uneventful.

## DISCUSSION

In delayed presentation, the main symptoms reported in the literature are pollakiuria, dysuria, haematuria, urinary retention, abdominal or pelvic pain, and recurrent urinary tract infection. Clinical history and radio graphics are usually enough for the diagnosis of FBs in the urinary tract. Computed tomography (CT) and magnetic resonance imaging (MRI) are useful for objects not visible on X-ray or cystoscopy, as well as to exclude other diagnoses.<sup>4</sup>

In the present case during self-removal of the glass piece it may have broken or partly removed with retained piece inside bladder. Over the period of time, wound healing by fibrosis may have sealed the bladder wall wound and that may be the reason that foreign body was internalized. This case is unusual owing to delayed presentation, no other associated organ injury, no dysuria, urgency or frequency.

The most suitable method for removal of intravesical foreign bodies will depend on the nature of the foreign body, age of the patient, and the available expertise and equipment.<sup>5</sup> Most FBs can be removed transurethral with cystoscopy by grasping forceps but open removal via suprapubic cystostomy is sometimes required.<sup>3,6,7</sup> However, literature showed the endoscopic removal of glass rod without any complications.<sup>8</sup> A self-inserted glass ampule per urethra was also reported and removed by open cystotomy.<sup>9</sup> A novel laparoscopic extraction technique have also been described.<sup>10</sup>

Author is of the opinion that sharp glass foreign body in urinary bladder should be removed via cystotomy in order to avoid mucosal injury by sharp edges. However, placing the foreign object in specimen removal bag and PCCL (percutaneous cystolithotripsy) removal can be an innovative idea.

## CONCLUSION

Detailed history and examination is of paramount importance in intravesical foreign body cases. Cross-sectional imaging should be done to rule out associated adjacent organ injury and retained foreign body parts. Sharp glass foreign body in urinary bladder should be removed via cystotomy in order to avoid mucosal injury by sharp edges.

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: Not required*

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**Cite this article as:** Sharma S, Biswal DK, Sharma AR, Gupta AK. Unusual glass foreign body in the urinary bladder: a COVID-19 lockdown effect. *Int Surg J* 2022;9:903-5.