

When Plastic Mimics Stone: An Iatrogenic Bladder Foreign Body-Case Report

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ABSTRACT

Many bladder stones develop over time around foreign bodies. These may include fragments of Foley catheters, forgotten DJ stents, broken guidewires or endoscopic instruments, encrusted sutures, surgical staples, or objects self-introduced by patients with psychiatric disorders.

Herein, we report the case of an 80-year-old male who was evaluated for obstructive and irritative lower urinary tract symptoms (LUTS). Imaging suggested a bladder calculus; however, endoscopic intervention revealed and facilitated the removal of an iatrogenically introduced plastic foreign body forming the nidus at the core of the calculus

Although several case reports have described various iatrogenic materials introduced into the urinary bladder masquerading as urinary bladder stones, we have not found a similar case in the available literature.

Keywords: *Foreign body; Lower urinary tract symptoms; Urinary bladder; Urinary bladder calculus.*

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INTRODUCTION

A wide range of intravesical foreign bodies has been documented in the literature, including components of Foley catheters, fragments of forgotten DJ stents, broken guidewires, parts of endoscopic instruments, encrusted sutures, surgical staples with adherent calculi, and knotted suprapubic catheters. [1]

Intravesical foreign bodies most commonly result from iatrogenic causes, self-insertion, or sexual abuse. Presentation is often delayed due to fear of embarrassment. Urinary tract infection, pain, and haematuria are the most frequent presenting complaints.

We present, to the best of our knowledge, the first reported case of a bladder stone formed over an iatrogenically introduced plastic cap of a lignocaine jelly tube that acted as an intravesical foreign body

CASE REPORT

An 80-year-old male with no known medical comorbidities presented with features suggestive of recent-onset lower urinary tract symptoms (LUTS). Clinical examination was unremarkable. Urine examination revealed microscopic hematuria.

Ultrasonography of the abdomen demonstrated a solitary bladder calculus measuring approximately 2.5 cm, with no evidence of hydroureteronephrosis. Plain X-ray of the kidneys, ureters, and bladder (KUB) confirmed a radiopaque bladder stone of similar size (Figure 1).



Figure 1: X-ray KUB with bladder calculus

The patient underwent planned pan-cystoscopy with optical internal urethrotomy and transurethral holmium laser cystolithotripsy after obtaining written informed consent. Intraoperatively, after successfully fragmenting the outer shell of the calculus, (Figure 2) further lithotripsy attempts failed, as the remaining core resisted laser fragmentation. The residual calculus was subsequently grasped with forceps and delivered intact per urethra. (Figure 3)

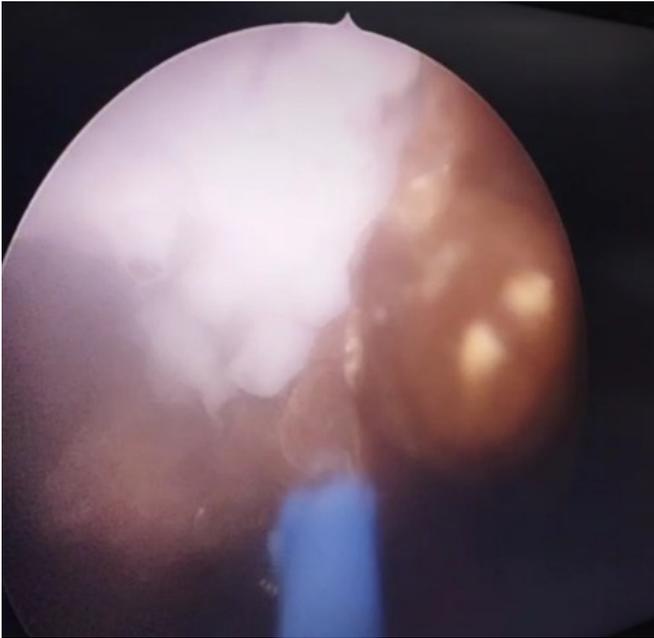


Figure 2: White colored foreign body with an outer crust of calculus being fragmented with a holmium laser



Figure 4: Foreign body after removal from the bladder

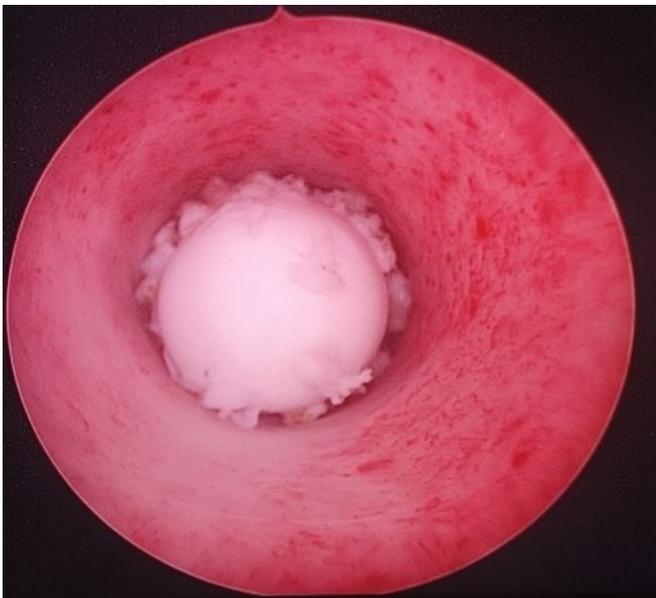


Figure 3: Cystoscopic removal of the foreign body

On close inspection, the calculus was unexpectedly found to be the white plastic cap of a lignocaine jelly tube. (Figure 4) Following this finding, a detailed history was reviewed, during which the patient recalled a single episode of urethral catheterisation for acute urinary retention after right inguinal hernioplasty approximately ten years earlier at another centre.

DISCUSSION

Intravesical foreign bodies can pose significant diagnostic and therapeutic challenges, often due to

their varied presentations, diverse aetiologies, and potential to mimic more common urological conditions such as bladder calculi or tumours.

A foreign body may be introduced either due to penetrating injury or it may migrate from surrounding organs. Foreign bodies in the urinary bladder can also be self-inflicted for autoerotic purposes, associated with underlying psychiatric conditions, or introduced inadvertently during therapeutic or medical procedures. [2]

Relevant history with respect to the inadvertent or intentional introduction of a foreign body may be underreported. They most commonly present as recurrent urinary tract infection or as an intravesical calculus. Symptoms produced by intravesical foreign bodies are mainly frequency, urgency, dysuria, suprapubic pain, hematuria, strangury, urinary retention, or poor urine stream. [3]

In our case, the foreign body was the white cap of lignocaine jelly. (Figure 5) The most likely cause was the iatrogenic insertion of a cap of lignocaine jelly while placing a Foley's catheter 10 years back for post-operative retention of urine following mesh hernioplasty.

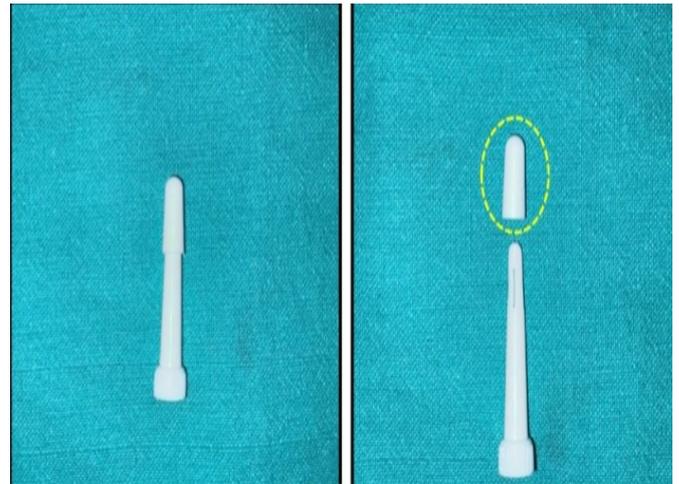


Figure 5: Usual lignocaine jelly tip with cap

In one of the published paper authors discussed their 20 years of experience with intravesical foreign bodies in 78 patients. Only four patients required an open surgical procedure for specimen extraction. [4]

Diagnosis of intravesical FB may be relatively simple with proper history and can be confirmed by plain radiograph. Contrast cross-sectional imaging is rarely needed. However, most often, a diagnosis is made retrospectively or incidentally. [5]

Management includes prompt, complete removal by a minimally invasive technique to prevent further immediate or delayed complications. [6]

CONCLUSIONS

A bladder stone associated with a foreign body is a rare clinical entity and may remain unnoticed for a prolonged period. Foreign bodies within the bladder can act as a nidus for stone formation and facilitate chronic infection by introducing or harbouring pathogens. Once symptoms develop, the diagnosis is usually straightforward. Management depends on the characteristics of the foreign body and calculus, as well as patient-related factors.

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