

CASE REPORT

Bladder Calculus Following an Unusual Vesical Foreign Body
A Bello, GD Kalayi, HY Maitama, NH Mbibu, DU Kalba.
Division of Urology, Department of surgery
Ahmadu Bello University Teaching Hospital, Zaria, Nigeria.

ABSTRACT

Bladder calculus following vesical foreign bodies is uncommon. The usual presentation is presence of lower urinary symptoms. Most of these foreign bodies are either left inadvertently after open bladder operations or migrate from adjacent structures. This is a case report of an unusual self inserted foreign body in a female presenting with bladder calculus and diverticulum. Self inserted foreign body, particularly in females, is one of the important causes of bladder stones. Foreign body in the bladder should be suspected in a female patient with chronic lower urinary tract symptoms even in the absence of trauma or intervention

Key Words: Urinary Bladder, Calculus, Foreign body

INTRODUCTION

Bladder calculus following foreign body is uncommon and usually presents with lower urinary tract symptoms¹. These foreign bodies were either left inadvertently after open bladder operation or migrate from adjacent structures. Patients with missing intrauterine device or pelvic drains were reported². Most of such cases were diagnosed while on investigation for unrelated conditions. Self inserted foreign bodies particularly in females were documented as important causes of bladder stones². We report an unusual self inserted bladder foreign body resulting in vesical calculus.

CASE HISTORY

A 25-year Old female Catholic student presented to the out patient department with difficulty in passing urine characterized by irritative and obstructive lower urinary symptoms with double micturation for two years. She had fever three weeks prior to presentation, but denied history of genitourinary trauma which was later volunteered after plain abdominal x-ray revealed a foreign body in the bladder, figure1. She had urethral itching prior to the onset of symptoms and uses knitting needle

(crochet) to scratch the urethra which resulted in the loss of the needle into the bladder. She was found to be normal on psychiatric assessment. Examination revealed febrile young lady (temperature-38.0°C) with marked suprapubic tenderness. Digital rectal examination revealed a bimanually hard pelvic mass. An impression of bladder outflow obstruction from vesical calculus secondary to foreign body was made. Abdominopelvic ultrasound revealed a huge vesical calculus. Plain abdominal x-ray revealed a radio opaque shadow in the region of the bladder with metallic dense shadow within it (figure1). Electrolytes were normal except for elevated urea of 12mmol/l which normalized after hydration and bladder drainage. Intravenous urogram revealed a right posterior lateral bladder diverticulum with a filling defect and mucosal irregularity. Urine microscopy, and culture revealed many white blood cells, no red blood cell and no organism isolated. Urethrocystoscopy revealed a foreign body embedded in a huge vesical calculus with a posterior lateral bladder diverticulum. She was resuscitated and had cystostomy removal of foreign body and vesical calculus with diverticulectomy.

The stone measures 10cm by 8cm by 8cm, figure 2. Patient did well and was voiding with good urinary stream, she was subsequently discharged. She had repeat ultrasound at 3 months after surgery which was essentially normal.

Correspondence: Dr. A .Bello
Department of Surgery, Ahmadu Bello University
Teaching Hospital Zaria, Kaduna State , Nigeria
Email: abellokarfi@yaoo.com.



Figure 1: Pelvic x-ray showing stone and the foreign body (arrow).

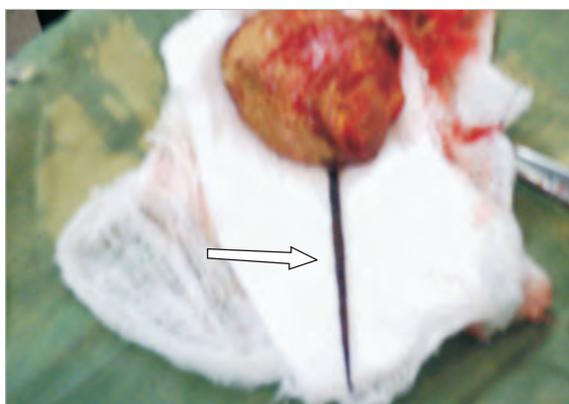


Figure 2: Extracted intravesical foreign body and stone.

DISCUSSION

Vesical calculus is one of the oldest problems in surgery.³ It is related to poor socioeconomic status and malnutrition. Upper urinary tract stones are found most especially among the affluent society.⁴ Secondary vesical stones usually complicating vesical obstruction with residual urine and infection, neurogenic bladder, bladder diverticulum, vesical schistosomiasis and radiation cystitis are common in Africa.⁵ In the developed world secondary vesical stones are not common. Foreign body in the bladder may act as a nidus for the formation of stone and is not common world wide. The common foreign bodies in the bladder include missing IUCD or object left inadvertently after surgical procedure such as gauze, staples, sutures or drains.^{6, 7} Occasionally foreign bodies may be inserted per urethra as seen in this patient. It is interesting to note that this patient is not

sexually active and has no psychiatric illness. Most bladder stones contain struvite (infective) or uric acid. Analysis of this stone revealed triple phosphate. Though self inserted foreign bodies particularly in females is one of the important causes of bladder stones, the chronic existence of a knitting needle in the bladder is unusual. Treatment was by operative retrieval and outcome was satisfactory. This patient now voids freely and with good urinary stream.

In conclusion, foreign body in bladder should be suspected in female patient with chronic lower urinary Symptom even in the absence of trauma or intervention. Vesical calculus commonly complicates bladder foreign bodies.

REFERENCE

1. Sozen S, Kupeli B, Ogunzulgen A I, Sen J, Karaoglan U. An unexpected foreign Body in the bladder followin laparoscopic colpuspension operation. *Gazi Medical Journal* 2000; 11:179-181
2. Nasir S S, Singh B, Qazi WS. An unusual foreign body in the urinary bladder. *JK Practitioner* 2004; 11:268-269
3. Yalcin V, Demiskesen O, Ach B, Onal B, Solvi V. An unusual presentation of a foreign body in the urinary bladder, a migrant intrauterine device. *Urology International* 1998;61: 240-242
4. Eckford S D, Persad RA, Brewster SF et al. Intravesical foreign bodies: Five year review *Br J Urol* 1992; 69:41-42
5. Sharma V P, Nebeebux Y, Patric J. Unusual foreign body in the bladder. *Br J Urol* 1987; 59: 92
6. Osea J M, Breseta E, Server G et al. Unusual foreign bodies in the urethra and bladder. *Br J Urol* 1991; 68:: 510- 512
7. Kanne N, Iwasa A, Seneh H, Takemoto M. An unusual foreign body in the urinary bladder. *Br J Urol* 1994; 73: 587 - 588