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Endoscopic Management of Foreign Body in Urethra and Urinary Bladder

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Abstract

Aims: To analyze endoscopic management of foreign body urinary tract, its outcome and complications.

Methods: A retrospective study of 11 cases of foreign body urinary bladder and urethra was performed from Jan, 2001 to June, 2008. Diagnosis was confirmed by X-Ray and ultrasound and removal was done by endoscopic and open surgery.

Results: Total numbers of patients were 11, out of which 8 were male and 3 female. Eight patients have foreign body in bladder and 3 in urethra. Lower urinary tract symptoms, hematuria, pyuria and urinary retention were the main symptoms. Endoscopic removal was successful in 9 out of 11 patients. Psychiatric disorder was present in 4 patients while two inserted these for autoerotic stimulation. Urethral stricture was the main complication.

Conclusions: Foreign bodies in urinary tract are rare. Radiological evaluation is mandatory to ascertain exact size, shape, site, and type of object. Endoscopic removal is usually successful in expert heads with little complications. A psychiatric evaluation is recommended for self inflicted foreign bodies.

Keywords: Foreign Body, Urethra, Bladder, Cystoscopy

Introduction

Urinary bladder seems to be inaccessible site for foreign body insertion. Variety of foreign bodies inserted into or externally attached to the genitourinary tract defies imagination. These include objects such as fish hooks, metal roads, hair pins, screws, pellets, wires, wooden sticks, piece of fish, telephone cables etc (1-3). Most cases are associated with psychiatric disorders, senility, intoxication or autoerotic stimulation (4). The frequency of such cases renders these an important addition to the diseases of genitourinary system (5). Most patients were too ashamed to admit the introduction of foreign body and usually present with dysuria, urinary frequency, hematuria, suprapubic pain, swelling of penis and external genitalia, extravasations or abscess formation (6). Diagnosis is based largely on history and clinical examination however radiological and cystoscopy studies are often required to confirm the diagnosis and plan management (7). The management includes extraction of foreign body and prevention of long term complications in addition to assessment of patient motivation and psychiatric consultation.

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Figure 1: Beauty Stick of beauty brush, (radiolucent) after removal from urinary bladder.

In this report, we present a 7.5 years (Jan, 2001 – June, 2008) experience at authors' institutions of patients presenting with foreign bodies in lower urinary tract either by self insertion or introduced iatrogenically.

Materials and Methods

Between Jan, 01, 2001 to June, 30, 2008, 11 patients with foreign bodies in lower urinary tract were managed at the Department of Urology, Allied Hospital Faisalabad, Department of Surgery Allied Hospital, Faisalabad, and Department of Urology, Madina Teaching Hospital, Faisalabad. Their medical records were reviewed for a retrospective analysis of presentation, diagnosis, management and complications.

Results

Eleven patients with foreign bodies in urethra and bladder were managed. Out of these, 8 patients were male and 3 were females. Foreign bodies were in the bladder in 8 patients and 3 had foreign bodies in urethra.

The symptoms in majority of patients were

Table 1. Various clinical symptoms of the patients (more than one present in a single patient)

Symptoms	No of Patients
Urinary Retention	4
Hematuria	5
Pyuria	3
Lower Urinary Tract Symptoms (LUTS)	10

Figure 2: Foetal bones after removal

increased urinary frequency, nocturia, hematuria and urinary retention (Table 1). Psychiatric disorders were present in 4 male patients and two recorded a history of autoerotic stimulation (one male and one female). All urethral foreign bodies were self-introduced. While 3 out of 8 urinary bladder foreign bodies were self-introduced and 5 proved to be introduced iatrogenically. Radiological studies were necessary to determine the exact size, shape and location of the foreign bodies. Pelvic images were sufficient in all cases, however in one case it was radiolucent and ultrasonogrphy was helpful in that case (Fig 1). The objects removed were cycle wires, match stick, open safety pin, common pin, ICUDs, pencil, beauty stick, foley tip, and foetal bone pieces and pieces of sweepers brush (Fig 2, 3).

Figure 3: Cycle wire and safety pin after removal from bladder

Endoscopic removal was successful in 9 out of 11 cases. Grasping endoscopic instruments, such as biopsy forceps, stone punch, and modified version of these instruments were used. In one case of long piece of brush, exploratory laparotomy had to be performed and piece wrapped in the omentum was removed. In another case of removal of beauty stick, procedure was successful with endoscopy. However immediate exploration of abdomen and the fluid leaked into peritoneal cavity had to be drained. This was communicating with the peritoneal cavity and surprisingly not allowing urine to leak before its removal. All the retrieval was done under spinal and general anesthesia.

Intravenous antibiotics were given to all patients for at least 72 hours followed by oral antibiotics for 7-10 days. The most common injuries were mucosal tears with false passages in two patients. One patient had false passage communicating with copora cavernosa. Patients with psychiatric disorder were referred to Psychiatry Department for their illness. Urethral stricture was the main complication in 2 patients and was treated with optical internal urethrotomy followed by clean self-dilatation.

Discussion

Every conceivable object has been inserted into the lower urinary tract with a challenge of diagnosis and management to the Urologists. Self insertion may be complicated when misplaced object migrates into the proximal urethra and bladder and is not retrievable. Patients were reluctant to get medical advice due to shame. They made several attempts that caused further migration and injury. Some studies have reported autoerotic stimulation and psychiatric disorder as the main cause of self insertion of foreign bodies (1, 8, 9). In the present report, 4 patients had proved to be suffering from psychiatric disorder and autoerotic stimulation was the cause recorded by two patients. Psychiatric evaluation of all the

patients however is controversial, as some may be psychologically normal. However we recommend that initial evaluation of these patients by a psychiatrist may be beneficial for diagnosis and treatment of any underlying mental disorder. Five patients with foreign body bladder had iatrogenic causes for their insertion. The medical infrastructure is not well developed in Pakistan. People living in remote areas do not have access to proper health care facilities. Abortions, both legitimate and illegitimate are considered to be sin in this society. Unqualified and semi qualified ladies (trained birth attendants (TBAS), Dais) usually carry out these abortions with wooden sticks, stick of brush, traditional medicines etc. Additionally contraceptive devices are also being placed/ misplaced by these personnel. This is probably the main factor for the iatrogenically inserted foreign bodies in urinary tract like the two case reports from this region published in the literature (10, 11). Patients often have pain and anxiety at presentation especially those with self-inflicted foreign bodies.

They require proper medications and comfort, during their preoperative evaluation and imaging studies. Urethral catheterization and manipulation of the object may lead to further injury and adds agony to the patients and should be avoided. Attempt of removal should be made after proper evaluation of site, size, shape, type of the object by radiological studies. In most cases pelvic X-Ray is sufficient especially in case of radio-opaque objects however ultrasonography and CT may be required in cases of radiolucent objects.

In the present study, patients with urethral foreign bodies presented earlier, however the time taken by the patients with iatrogenically inflicted objects were in years (1-7years). Patients with foreign body are prone to infections and other complications and should be treated with preoperative antibiotics. Endoscopic retrieval should be the treatment of first choice causing less morbidity and few complications. Open surgery is indicated in those patients where there is risk of the urethral injury during endoscopic retrieval.

Aliabadi et al (6) reported their experience of 12 years with 15 patients of foreign bodies in lower urinary tract. Endoscopic retrieval was successful in six patients. Remaining patients required open surgery. In another study by Rahman et al. (9), endoscopic removal of foreign bodies in the urethra was successful in 16 out of 17 patients in their 17 years experience.

Endoscopic removals of foreign bodies of various natures in the bladder have been reported in a number of case reports published in the literature (12-14). In the present study endoscopic removal was successful in 9 out of 11 cases. Out of remaining two cases, long brush stick had its upper end embedded inside the peritoneal cavity and in 2nd case calcification around the Intrauterine Contraceptive Device was too hard to be broken. Two patients with urethral foreign body developed urethral stricture and were treated endoscopically. Most of patients failed to return for their follow up visits and therefore the other complications could not be recorded.

Conclusions

Foreign bodies in lower urinary tract are rare. Patients usually present earlier in case of urethral foreign bodies and late in cases of bladder. Radiological evaluation is mandatory to ascertain the exact site, size, type and shape of the object. Endoscopic retrieval is usually successful. A psychiatric evaluation is recommended for self-inflicted foreign bodies. All gynecological manipulation should be performed by qualified personnel. Delayed complications include urethral stricture. Close follow up is indicated where possible.

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References

1. van Ophoven A, deKernion JB. Clinical management of foreign bodies of the genitourinary tract. J Urol. 2000 Aug;164(2):274-87.
2. Ayyildiz A, Gurdal M, Nuhoglu B, Ersoy E, Huri E, Germiyanoglu C. A foreign body self-inserted via the urethra into the bladder: pocket battery. Int Urol Nephrol. 2003;35(2):251-2.
3. Gonzalgo ML, Chan DY. Endoscopic basket extraction of a urethral foreign body. Urology. 2003 Aug;62(2):352.
4. Rosenthal M, Berkman P, Shapira A, Gil I, Abramovitz J. Urethral masturbation and sexual disinhibition in dementia: a case report. Isr J Psychiatry Relat Sci. 2003;40(1):67-72.
5. Adams GW Jr., Hudson HC. Routine prostatitis? A case report of long-term foreign body in the prostatic urethra. J Urol. 1986 Sep;136(3):682-3.
6. Aliabadi H, Cass AS, Gleich P, Johnson CF. Self-inflicted foreign bodies involving lower urinary tract and male genitals. Urology. 1985 Jul;26(1):12-6.
7. Barzilai M, Cohen I, Stein A. Sonographic detection of a foreign body in the urethra and urinary bladder. Urol Int. 2000;64(3):178-80.
8. Banerjee A, Rao S, Khanna SK, Narayanan PS, Gupta BK, Sekar JC. Retained foreign bodies in adults. Ann Urol (Calcutta). 2001;35:277-9.
9. Rahman NU, Elliott SP, McAninch JW. Self-inflicted male urethral foreign body insertion: endoscopic management and complications. BJU Int. 2004 Nov;94(7):1051-3.
10. Memon JM, Memon NA, Jilani KA, Naqvi SQH, Memon GA. An unusual foreign body in the urinary bladder. GJMS. 2006;4(1):36-7.
11. Ijaz M, Kibria R, Rehman B. Urinary bladder Gossypiboma. Rawal Med J. 2005;30(2):96-7.
12. Trehan RK, Haroon A, Memon S, Turner D. Successful removal of a telephone cable, a foreign body through the urethra into the bladder: a case report. J Med Case Reports. 2007;1:153.
13. Bhantesh J, Saad A, Nikhil K. Case report of a very long foreign body in urinary bladder. The Internet Journal of Urology. 2006;4(1).
14. Vezhaventhan G, Jeyaraman R. Unusual Foreign Body In Urinary Bladder: A Case Report. The Internet Journal of Urology. 2007;4(2).