

Self-inflicted foreign bodies in lower genitourinary tract in males: Our experience and review of literature

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Abstract

Objectives: To study retrospectively the frequency, demographic, phenomenological, and psychiatric profile in patients presented with self-insertion of foreign bodies in the lower genitourinary tract in our institute.

Materials and Methods: From January 2009 to 2015, the records of patients admitted with self-insertion of foreign bodies into the lower urinary tract were analyzed retrospectively regarding demographic and phenomenological profile, the mode of presentation, diagnosis, management, complications, and possible contributing factors leading to the event.

Results: Out of 17,978 inpatients, ten patients (0.055%) presented with foreign body insertion in the lower genitourinary tract in last 6 years. Mean age was 28.1 ± 13.9 (7–50) years. Objects used for insertion were varied from seeds, twigs to the electric wire. The contributing factors were lack of partner, misconception about masturbation, and underlying psychiatric illness. The presenting symptoms were pain and swelling of the penis, difficulty in voiding, and skin ulceration. The diagnosis was possible by simple observation in four patients, X-ray kidney, ureter, and bladder, and sonography of the pelvis in six patients. Five patients had endoscopic retrieval of foreign body, 2 had an open, suprapubic cystostomy, urethrotomy was needed in one patient, and forceps removal in two patients. There were no postoperative complications. Psychiatric profile was evaluated in nine patients.

Conclusions: Foreign body insertion to lower urinary tract was rare. A main cause for insertion of foreign bodies was autoerotism, misconceptions regarding masturbation, and underlying psychiatric illness. In addition to suitable method of surgical removal, counseling and psychiatric evaluation are necessary to prevent recurrences or for early detection of psychiatric problems.

Key Words: Autoerotism, endoscopic retrieval of foreign body, foreign body, lower genitourinary tract, self-inflicted

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INTRODUCTION

Foreign body insertion in the lower urinary tract is uncommon, but several cases had been reported. Foreign bodies were inserted as the result of curiosity, autoerotic stimulation, underlying psychiatric condition or for medical procedures.^[1] Variety of foreign bodies that are inserted to the genitourinary tract defies imagination. These include objects such as fish hooks, metal rods, hairpins, screws, pellets, wires, wooden sticks, piece of fish, and telephone cables.^[2-4] Most of the cases are associated with psychiatric disorders, senility, intoxication, or autoerotic stimulation.^[5] With minimal discomfort, the foreign body can remain for a long time. Most patients present late due to shame and social stigma to admit the introduction of foreign body. Usual presentation is dysuria, urinary frequency, hematuria, suprapubic pain, swelling of the penis and external genitalia, and extravasations or abscess formation.^[6] Diagnosis is done by history and clinical examination. However, few radiological and cystoscopy examinations are required for diagnosis and to plan management.^[7] The management includes not only foreign body retrieval and prevention of long-term complications but also includes evaluation of patient's motive and psychiatric consultation. Most of the published articles emphasize on the maneuvers to remove the objects, but very few articles study the contributing factors that lead to this unusual behavior. Recent two admissions of patients with foreign body insertion in the lower genitourinary tract in a span of 10 months have prompted us to review the underlying contributing factors, which lead the patients to this unusual behavior.

MATERIALS AND METHODS

From January 2009 to December 2015, a total 10 patients out of 17,978 inpatients (0.055%) presented with foreign body insertion in lower urinary tract were presented at our institute. The medical records were analyzed retrospectively with regard to demographic and phenomenological profile, the mode of presentation, diagnosis, management, complications, and possible contributing factors leading to the event.

RESULTS

The demographic profile of these patients, time to seek medical aid, clinical presentation, duration of hospital stay, methods used to remove the object, and contributing factor (if any) is outlined in Table I.

In the past 6 years, ten patients were operated for foreign body insertion. Mean age was 28.1 ± 13.9 (7–50) years. All our patients were male. We could correlate the type of foreign body used and the occupation of the patient in four cases. The time to seek medical help after failure to self-removal of the

foreign body varied from 2 h to 8 days. Various objects such as electric wire, telephone wire [Figure 1], tamarind seed, grass twig, sewing needle, broad metallic ring [Figures 2 and 3], and soldering wire were used. Usually long, slender objects were used for insertion in the urethra and objects with central hole were used over the penis as a substitute for vagina. Patients use objects available easily at the workplace. The clinical presentation included pain in the penis, swelling, inability to void, and penile ulceration. Patients defer seeking medical help unless the symptom compels him to do so. For example, the patient with the metallic ring presented after 8 days as he was not in pain or retention. Simple observation could detect the tamarind seed, sewing needle and broad metallic ring. X-ray kidney, ureter, and bladder and ultrasonography were used to detect the electric wire, soldering wire (being malleable, it had formed a knot in the bladder with one end in the prostatic urethra). The grass and wooden twig were detected on endoscopy. Endoscopic retrieval was possible in five patients, and two patients required open cystotomy (case no. 1 and 10) and one required a urethrotomy [Table 1]. Special mention is required for the last patient in this series, a 50 years old truck mechanic who inserted a broad metal ring around his penis and presented 8 days later with pus discharge from the site of the ring and distal penile swelling. He had an infected ring-like ulceration at penoscrotal junction with edematous penis but no evidence of gangrene [Figure 3]. We used a hacksaw to cut the ring. As it was 1 cm thick and 3 cm in breadth, it had to be cut at diagonally opposite sites, and the surgery took 3 h.

The contributing factors were lack of partner or spouse and misconception about masturbation in six of the patients; maniac depressive psychosis in one patient, impulsive behavior in one patient, and one patient was intellectually challenged. None of the patients came voluntarily for a follow-up except the patient number 8.

DISCUSSION

The incidence of insertion of foreign bodies into the lower urinary tract is very rare. In the literature, we find different types of self-inserted foreign bodies, which include needles,



Figure 1: Telephonic wire inserted through urethra into the urinary bladder with self-knotting

Table 1: Demographic and phenomenological profile of patients with foreign body insertion in the lower genitourinary tract

Age	Clinical presentation	Foreign body	Occupation	Duration	Location	Procedure done	Hospital time (days)	Contributing factors	Follow-up and psychiatric referral
24	Retention pain in lower abdomen	Soldering wire 15 cm	Radio mechanic	12 h	Mainly in bladder with one end in prostatic urethra	Open suprapubic cystostomy	6	Maniac-depressive psychosis	Counseling and drugs
22	Pain in penis	Wooden twig (4 cm)	Labourer	2 h	Anterior urethra	Foreign body forceps	2	Sexual gratification	Counseling
26	Pain in penis	Grass twig (5 cm)	Wood worker	No record	Anterior urethra	Foreign body forceps	2	Impulsive behavior	Counseling and drugs
38	Pain in the penis	Electricity wire	No record	5 days	Anterior urethra	Cystoscopic removal	3	Masturbation	Counseling
7	Retention of urine, swelling of distal penis	Tamarind seed	Labourer	2 days	Anterior urethra	Foreign body forceps	2	No record	Counseling
18	Pain in penis	Electricity wire 3 cm	Student	24 h	Anterior urethra	Cystoscopic removal	3	Masturbation	Counseling
16	Brought by parents with tip of needle visible	Sewing needle	Staying at home	24 h	Anterior urethra	Open urethrotomy	6	Intellectually challenged and abnormal arousal	Counseling
50	Penile ulceration and discharge	Metal ring (3 cm width and 1 cm thickness)	Truck garage worker	8 days	On the penoscrotal junction	Saw to cut the ring. Skin grafting at later stage	8	Abnormal arousal behavior	Counseling
32	Swelling of shaft of penis	Metal ring of 1-inch diameter and 2 cm thickness	Image worker	6 h	On the penoscrotal junction	Compression of swelling, aspiration of corpora with proximal tourniquet	3	Masturbation	Counseling
48	Pain in penis	Telephone wire insertion to penis	Labourer	3 days	Present in bladder and urethra	Removed by cystostomy	3	Retention of urine or sexual gratification	Counseling

**Figure 2:** Broad and thick metallic ring inserted to penis, which was removed by decompression of peni

pencils, ball point pens, pen lids, garden wire, copper wire, speaker wire, safety pins, Allen keys, wire such as objects (telephone cables, rubber tubes, feeding tubes, straws, string), toothbrushes, household batteries, light bulbs, marbles, cotton tip swabs, plastic cups, thermometers, plants and vegetables (carrot, cucumber, beans, hay, bamboo sticks, grass leaves), parts of animals (leeches, squirrel tail, snakes, bones), toys, pieces of latex gloves, blue tack, intrauterine contraceptive devices, tampons, pessaries, powders (cocaine), and fluids (glue, hot wax).^[8-10]

The most common reason for self-insertion of a foreign body into the male urethra is for autoerotic and sexual gratification, especially during, masturbation.^[2,4,11] Majority of patients often delay asking for treatment because of guilt, social stigma, and humiliation.^[2] This may leads

**Figure 3:** Broad and thick metallic ring inserted to penis 8 days back with infected ring-like ulceration at penoscrotal junction, which had to be removed by cutting the ring

multiple self-removal attempts, which can cause urethral injury and foreign body migration. Few cases are associated with psychiatric disorders,^[2,4] drug intoxication,^[2,4] mental confusion,^[12] sexual curiosity,^[2,4,11] or a desire to get relief from urinary symptoms.^[13] Co-morbidities reported in patients presenting with foreign body insertion include exotic impulses, most commonly sexual in nature, a disturbed schizoid personality and borderline personality disorder.^[11] In the present report, one patient had maniac depressive psychiatric disorder, one patient had mental retardation, one patient had impulsive behavior and autoerotic stimulation was the cause recorded in two patients. Lack of partner or spouse and misconception about masturbation was noted as a cause in

three patients. As we can find the leading cause for insertion of foreign body in the majority of our patients, even though the psychiatric evaluation of all the patients is controversial, we recommend it. This is beneficial not only for diagnosis and treatment of any underlying mental disorder but also to prevent further episodes.

Most commonly, the diagnosis is confirmed on physical examination. Foreign bodies distal to the urogenital diaphragm are readily palpable. A pelvic X-ray and computerized tomography of the abdomen and/or pelvis can be useful in defining a foreign body's position, orientation, relationship, and its ramification to surrounding viscera.^[9]

Physical nature and morphology of foreign body determines the method of removal. The aim is to minimize trauma and preserve erectile function. Foreign bodies located distal to the urogenital diaphragm can often be successfully extracted by endoscopic methods with the aid of forceps, snares, and baskets, and as such have become the standard of care.^[8,9] After removal, cystourethroscopy has to be done to diagnose any urothelial injuries and to ensure complete removal of foreign bodies. Ring cutters, bolt cutters, motorized rotatory heavy-duty grinders, can be used to remove heavy metal rings. Features of safe removal of these items include cooling the metal object with ice to prevent tissue heating, protecting the patient from sparks, and protecting the penis from the cutting blade.^[2,4] Broad spectrum antibiotic has to be administered.

Rarely, more invasive foreign body extraction procedures are required – external urethrotomy (for pendulous urethral foreign bodies), suprapubic cystotomy (for posterior urethral foreign bodies), or meatotomy.^[8,14] Complications following these procedures are rare but can include infection, fistula, urethral stricture, diverticulum, and incontinence.^[8,9,14] Of these, urethral strictures – 5% incidence – are the most common delayed complication.^[8] Hence, regular follow-up is required for early diagnosis of the complications.

Most of the urological case reports on the foreign objects introduced in or on the penis customarily mention autoerotic behavior and sexual gratification, especially during, masturbation as a probable cause of this abnormal behavior.^[2,4,11] More rightfully emphasis is placed on the novel method used to remove the object; however, it is equally important to know the probable causes for this behavior by psychiatrist consultation, so that counseling and treatment in total can be done to prevent a repetition of the episode. There are a few psychoanalytical theories postulated on the basis of the paraphilia with sadomaso-fetishistic, impulsive and manic rudiments to account for self-insertion of devices for sexual gratification. On literature review, only a few urological

references, analyze the cause. Review of various articles in standard textbooks and Medline search mentions the following contributing factors, which may lead to self-introduction of foreign bodies.

- Kenney's theory states that the initiating event is an accidentally discovered pleasurable stimulation of the urethra, which is followed by repetition of this action using objects of unknown danger, driven by a particular psychological predisposition to sexual gratification^[15]
- Wise considered that urethral manipulation is a paraphilia combining sadomasochistic and fetishist elements where the orgasm of the individual depends on the presence of the fetish. He believed it showed a regression to a urethral stage of eroticism due to a traumatic event or a strong libidinal drive^[16]
- Arousal behavior is that behavior which accompanies or promotes genital excitement. In the chain of events beginning with sexual arousal starts with sexual contact or stimulation of some kind. People have a variety of sexual interests and develop new ones in special circumstances (e.g., in prison or chronic sexual deprivation).^[17] Patient uses an object readily available to him to increase genital excitement or prevent premature ejaculation
- In India, the DHAT syndrome (Sanskrit: धातु दोष, IAST: Dhātu doṣa), which is due to a common misbelieve that the DHAT (semen) is very precious secretion with limited reserves in the body. It should be conserved, and if it is lost due to frequent masturbation, the person becomes weak and impotent with a deformed penis. This leads to experimentation with foreign objects for sexual excitement and for prevention of ejaculation.^[18] A session with the patient explaining the myths about masturbation is helpful in these cases
- Urethral masturbation wherein the person introduces objects on multiple occasions in the urethral opening for sexual gratification is another reason. However, only when the object gets stuck, medical help is taken^[6,17]
- In sadistic sexual abuse, the person incites or tries to incite a feeling of pain in him or a partner/victim to increase the sexual pleasure. The various method described are the insertion of foreign bodies, use of weapons and restrains^[17]
- Intoxication and subsequent intoxicated sex play can lead to the foreign body insertion^[19]
- Mitchell developed the psychiatric theme that intraurethral insertions expressed feminine identification and denial of the maleness. The patient does not want to insert the penis but prefers some object to be inserted in the penis (feminine identification)^[15]
- Rada and James reported various psychiatric disorders such as antisocial personality disorder, sense of depersonization,

and global dysfunctional state in adolescent inmates of a maximum security hospital^[20]

- Older patients with dementia are known to have increased sexual activity (hypersexuality with or without inappropriate sexual expression). Hausserman cites a case report of a patient with dementia of Alzheimer's type who repeatedly inserted foreign bodies in the penis^[21]
- Intellectually challenged: The desire to indulge in sexual activities is present in the intellectually challenged patients. Insertion of foreign bodies is not cited in the literature, but 60–70% are known to indulge in abnormal sexual practices.^[22]

Some theories consider these acts as an indication of impulsive behavior, which is self-punishing in nature and that may aggravate to suicide or recurrent act. Hence, evaluation for such act by psychiatric consultation needs to be done. The most prevalent motivation for self-insertion of urethral foreign bodies is autoerotism.^[8,9] Some cases are associated with mental and cognitive disorders, factitious disorders, personality disorders, sexual curiosity, and practice under the influence of intoxicating substances.^[9,23] Accidental and iatrogenic foreign bodies occur much more rarely.^[24]

Our series emphasizes several more important holistic management principles in the management of this rare urological emergency. Morphology and position foreign body determines the mode of its extraction and often can be done endoscopically. However, prevention of infection, minimization of further injury, assessment, and documentation of the underlying psychosocial cause of the act need to be done to prevent future episodes.

CONCLUSIONS

Foreign body insertion into the lower urinary tract is rare. A complete evaluation is required to ascertain exact size, shape, site, and type of object. In expert hands, endoscopic removal is often successful with little complications. A complete psychosocial evaluation is recommended to prevent future episodes.

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Conflicts of interest

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