

Foreign Body Induced Bladder Stone Formation Following Mistakenly Introduction of Herb Root through Urethra during Induced Abortion

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Abstract

Background: Bladder Stones can be formed for many reasons; one of them is being secondary to a foreign body. Reporting and publishing issues about stones formed around different kinds of foreign bodies in the bladder are increasing. We present a case of foreign body induced bladder stone formation following introduction of herb through urethra during induced abortion. **Case presentation:** A 25 years old young lady was presented with mild dull aching lower abdominal pain, burning micturition, occasional haematuria with occasional low grade fever. The plain radiograph film revealed multiple radiopaque shadow within the pelvis in the region of bladder. Ultrasonography of KUB region revealed that multiple vesicle stones with focal thickness of the wall of urinary bladder. With proper counseling and consent the patient was underwent suprapubic cystolithotomy. Two stones were identified within the urinary bladder which were elongated in shape and irregular surface and one stone contains herb root. **Conclusions:** The instances of foreign bodies with urinary bladder stone are uncommon. A diagnosis is usually made radiologically. Iatrogenic foreign bodies were found to be the most frequent type of insertion encountered. Endoscopic retrieval is usually successful, with minimal morbidity but sometimes may need open surgery for different situation.

Key words: Foreign body, Bladder stone, Herb root.

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Introduction

Bladder stones are usually a manifestation of an underlying pathologic condition, including voiding dysfunction, foreign body retention, urinary infection, or obstruction. The foreign body can be iatrogenic or self-induced. Foreign bodies may enter the bladder from the urethra, bowel, perivesical tissues, or upper urinary tract. Bullets and splinters may enter the bladder by direct penetration¹. These foreign bodies will act as nidus for development of stones. Mechanism of entrance of foreign bodies is either insertion through the urethra, migration from adjacent structures, left inadvertently after open bladder operations or penetration through the abdominal wall². The

motive behind self-insertion is either sexual gratification or as a consequence of psychiatric illness in some cases. FBs inserted in the urinary bladder include light bulb, glass rod, thermometer and battery. Sometimes objects are inadvertently inserted in urethra for inducing abortion or to avoid conception. Living objects or parts of animals like leech, snails and squirrels may enter the urinary bladder through urethra. Presentation is usually with variety of lower urinary tract symptoms (LUTS) which may include dysuria, haematuria, pyuria and recurrent infections. The physical examination is almost always unremarkable, and urine microscopy usually reveals pus cells and red blood cells. Radiopaque objects with or without stones can easily be seen on radiographs, while others are identified by the ultrasonography. Cystoscopy is often required to confirm the diagnosis and plan removal of objects and or stones³.

Case report:

A 25 years old young lady hailing from Nayapara Refugee camp, Cox's Bazar, Bangladesh and got admitted in Cox's Bazar Medical College hospital on 30.12.2019 with the complaints of mild dull aching lower abdominal pain, burning micturition, occasional haematuria with occasional low grade fever for 1 year. She also gave history of several episodes of retention of urine which was relieved

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by movement. On further query, she gave history of induced abortion by introducing herb root about 1 and half years back, during her pregnancy, since then all these complaints were gradually started & for last 1 month it became severe. A physical examination revealed that the patient was mildly anaemic and mild tenderness over the suprapubic area on deep palpation.

Laboratory test results demonstrated that her urinalysis showed 6 to 8 red blood cells per high-power field (HPF), 8 to 10 white blood cells per HPF; and complete blood count results was within normal range (ESR was 30 mm in 1st Hour, TC : 7800 /cmm, DC was N-54 %, L-40 %, M-02%) except Hb% was 10.1gm/dl. The plain radiograph film revealed multiple radiopaque shadow within the pelvis in the region of bladder (Figure 1). Ultrasonography of KUB region revealed that multiple vesicle stone with focal thickness of the wall of urinary bladder (Figure 2).



Figure 1: X-ray Pelvis Antero-posterior view



Figure 2: Ultrasonography of KUB region

With proper counseling and consent the patient was underwent suprapubic cystolithotomy was under spinal anaesthesia. Two stones were identified within the urinary bladder which were elongated in shape and irregular surface and one stone contains herb root (Figure 3). She was discharged on 10th postoperative day. Her lower urinary tract symptoms were subsided gradually. There was no postoperative complication.



Figure 3: Multiple bladder stones with herb root



Figure 4: Patient in postoperative period.

Discussion

Intravesical foreign body is not uncommon. Usually, patients with this condition present with frequency, urgency, suprapubic pain and hematuria⁴. A vesical calculus can be formed over a prolonged retention of foreign bodies, and renal failure has also been reported⁵. USG could detect the foreign bodies inside the urinary bladder. In addition, cystoscopy is essential to confirm the diagnosis and in the attempt for its removal. In most of the cases, foreign bodies can be removed from the bladder through the cystoscope. Recently, Ho:YAG laser has been used to fragment the large size foreign body inside the bladder and facilitate its removal through the cystoscope with a forceps⁶. But, because of scarcity of instrumental facility in our institute, we did open surgery for removal foreign body as well as stones.

Foreign bodies may reach the urinary bladder by one of the following modes: iatrogenic, perforation from adjacent organs, via the urethra or the traumatic route⁷. The incidence of iatrogenic foreign bodies in the urinary bladder is on the rise as a result of the large number of surgical procedures being conducted all over the world. The tips of Foley catheters and pieces of balloon have been found in the bladder on many occasions⁸.

The perforation of foreign bodies into the urinary bladder from the adjacent organs is extremely rare. Foreign bodies can perforate the urinary bladder from the gastrointestinal or female genital tract. Although IUCDs are widely used, only a small fraction perforates the bladder. They can perforate

either at the time of insertion or by slow migration across the bladder and uterine walls. Most of the perforations take place at the time of insertion and go unnoticed⁹.

Urethral insertion is encountered in both male and female patients; however, it is more common in the latter due to the presence of a short urethra. A variety of objects can be introduced via the urethral route into the bladder. Some of the common aetiologies of urethral insertion include psychiatric disorder, autoerotic stimulation and senility. Foreign bodies can sometimes be inadvertently placed in the bladder by women in order to induce an abortion. It is rare, however, for foreign bodies to be forcibly pushed into the urethra by another person.⁹ In our study, we retrieved a herb root with stones, which had been inserted for induce abortion. The number of iatrogenic foreign bodies found in the urinary bladder is alarming. Extra care must be taken to avoid such occurrences. Urologists, surgeons and paramedical staff must be very vigilant when performing procedures. For instance, it is always wise to examine the tip of the Foley catheter after removal. Endoscopic instruments should be checked before and after use. Moreover, patients with stents should receive clear instructions about their removal⁹.

Conclusion

Although not very common, intravesical FB could be considered in differential diagnoses of a patient with refractory lower urinary tract symptoms, especially when clinical history is suspicious. The type and nature of the foreign body should be ascertained by appropriate radiological studies, which direct the decision of removal of a particular

foreign body. The most suitable method of removal of intravesical FB is endoscopic, but certain foreign bodies may require open/laparoscopic surgery for removal.

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