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Case Report

Intravesical foreign body in a 12-year-old boy

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ABSTRACT

Self-insertion of foreign body in lower urinary tract is rare in children. It is commonly seen in adults. The reason for self-insertion may be accidental, due to psychiatric illness, curiosity, sexual stimulation or therapeutic in cases of stricture. Most of the cases reported are in adults. Here we present a 12-year-old child presenting with self-insertion of metallic hair pin into the lower urinary tract with symptoms of dysuria and retention of urine. X-ray and ultrasonography were diagnostic modalities which aided in the diagnosis. The child underwent successful cystoscopic removal of foreign body after thorough investigation. Post removal child underwent psychiatric evaluation. He was not suffering from any psychiatric condition. He admitted having inserted the hair pin out of curiosity. Child was passing urine in good stream at time of discharge. At six months follow up child remains asymptomatic.

Keywords: Cystoscopy, Foreign body, Self-insertion

INTRODUCTION

Foreign body in the bladder may occur due to self-insertion or migration from surrounding organs. Self-introduction of foreign body into the lower urinary tract in children is rarely reported.[1]

Reasons for self-insertion of foreign body include psychiatric, autoerotic, therapeutic purpose or no definitive reason.[2] Most of the cases seen are in older age groups. The male urethra is about 16 -20 centimetres in length and lumen diameter is about 8-9 millimetres. Hence insertion of foreign body through the urethra into the bladder is difficult to understand. According to Jung et al foreign body in the urinary bladder is a rare occurrence.[3] Martinez-Valls et al described this condition as exceptional and not a common emergency.[4] The presentation of these cases is usually delayed due to the fear of embarassement. The diagnosis and management of lower urinary tract foreign body requires expertise. Usually radio opaque foreign bodies are detected by X-ray while other foreign bodies require ultrasonography for detection. Treatment includes extraction of foreign body without causing injury to the urinary tract. Most of the cases are treated using minimal invasive techniques following advances in endoscopy. Very few cases require open surgery. Here we present a 12-year-old boy with a metallic hair pin in the bladder.

CASE REPORT

12-year-old boy presented with history of dysuria and difficulty to pass urine to a peripheral hospital. He underwent a single shot catheterization to relieve his symptoms. Child was asymptomatic for few hours, but in view of recurrent lower abdominal discomfort he consulted for the second time. An abdominal X ray and an Ultrasound (Figure 1 and 2) was done which revealed radio opaque shadow in the region of the bladder. On re-enquiring the child, he admitted having inserted a hair pin

into the urethra out of curiosity. The child was referred to our centre for removal of foreign body.

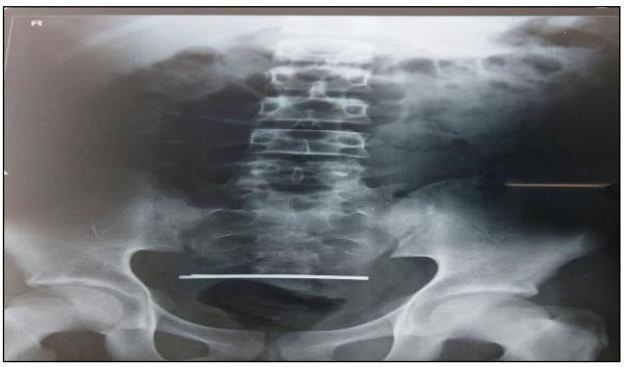

Figure 1: X-ray showing foreign body in bladder.

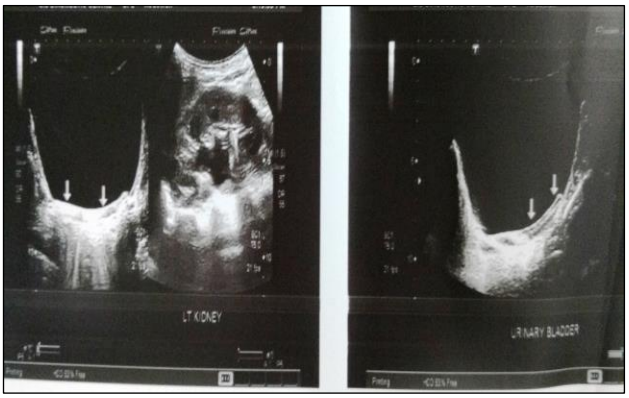

Figure 2: Ultrasound pictures.

At the time of presentation to our centre, the child had dysuria. It was nearly 36 hours post insertion he presented to us. There was no history of hematuria. On examination the child was hemodynamically stable and tenderness in the suprapubic region on deep palpation. All the blood investigations were within normal limits. His urine investigation was also within normal limits, no evidence of pus cells or red blood cells.

Child underwent cystoscopy with 7.5 French cystoscope. Linear black metallic foreign body was identified in the bladder, lying horizontally. The foreign body was manipulated in the bladder and carefully removed using a stent removal forceps (Figure 3). Care was taken not to injure the ejaculatory ducts or the urethra. Post removal child was catheterized with 10 French Foleys catheter for 48 hours. Post removal of the catheter child was passing urine well with a good stream. Psychiatric evaluation of the child was done before discharge. He was not suffering from any psychiatric condition. He admitted having inserted the hair pin out of curiosity. The child had an uneventful post-operative recovery and discharged on post operative day 2. At six months follow up child is asymptomatic and doing well.

Figure 3: Removal of foreign body.

DISCUSSION

Foreign body in the bladder and urethra are due to self-insertion, migration from surrounding sites secondary to iatrogenic or traumatic causes.

Self-insertion into urinary tract may be due to accidental, psychiatric illness, curiosity, and sexual stimulation or therapeutic in cases of stricture.[5] In children self-insertion of foreign body is rare.[1] It usually occurs during puberty or start of puberty.

Various type of foreign body has been reported. These include plastic caps, paper clips, hooked wire, metal objects, shells, glass rods, light bulbs. In our case the child had inserted a hair pin into the urethra. Due to catheterization the foreign body was pushed into the bladder.

Children around puberty are usually ashamed to admit that they have inserted an object into the urethra. In the present case the child had initial apprehension to admit that he had inserted a hair pin into the urethra, but in view of persisting problem he had to admit.

The commonest symptom is dysuria. Other symptoms include hematuria, swelling of genitalia, extravasations of urine, abscess formation, urinary retention.[5,6] The initial investigation is a plain X-ray to know the site, size, position, composition of foreign body. Most of the foreign bodies are picked up by an X ray. In few cases Ultrasound and CT scan might be required.[7,8] Both Ultrasound and an X ray was done in the present case before child presented to us.

Objectives of treatment include diagnosing complications, removal of foreign body and avoidance of complication to urethra.

Foreign body can be removed via cystoscopy, which is the least invasive method. The other options include open exploration, percutaneous suprapubic retrieval under

direct visualization via cystoscope.[9] Open exploration is the most invasive but highly successful method. In the present case foreign body was successfully removed via cystoscope.

Complication of self-insertion of foreign body includes bladder perforation, urethral injury, urethrocutaneous fistula, urinary tract infection, erectile dysfunction, urethral diverticulum.[10] Long term complication of untreated foreign body includes recurrent urinary tract infections, squamous cell carcinoma, calcification of foreign body, migration of foreign body, stone formation, and urethral stenosis.[1,11]

Psychiatric evaluation of these children is a must in case of self-insertion. In puberty most of the cases of self-insertion is because of curiosity as was with our case.

CONCLUSION

Though lower urinary foreign bodies are rare in children, proper evaluation is required. Treatment includes retrieval of foreign body without causing complication. All patients require psychiatric evaluation before discharge.

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REFERENCES

1. Rajesh L, Kader A, and Bhat VB. Unusual foreign body in the male urethra. Indian Pediatr. 2000;37(4):450-2.
2. van Ophoven A, DeKernion JB. Clinical management of foreign bodies of the genitourinary tract. J Urol. 2000;164(2)274-87.
3. Jung US, Lee JH, Kyung MS. Laparoscopic removal of an intravesical foreign body after laparoscopically assisted vaginal hysterectomy, a case report and review of the literature. Surg Laparosc Endosc Percutan Tech. 2008;18(4):420-7.
4. Martinez-Valls PL, Honrubia VB, Rodriguez TA. Voiding symptoms as presentation of an intravesical foreign body. Arch Esp Urol. 2008;61(7):781-5.
5. Sukkarieh T, Smaldone M, Shah B. Multiple foreign bodies in the anterior and posterior urethra. Int Brazilian J Urol. 2004;30(3)219-20.
6. Rafique M. Case report: an unusual intravesical foreign body: cause of recurrent urinary tract infections. Int Urol Nephrol. 2002;34(2):205-6.
7. Barzilai M, Cohen I, Stein A. Sonographic detection of a foreign body in the urethra and urinary bladder. Urologia Internationalis. 2000;64(3):178-80.
8. Rahman NU, Elliott SP, McAninch JW. Self-inflicted male urethral foreign body insertion: endoscopic management and complications. Br J Urol Int. 2004;94(7):1051-3.
9. Hutton KAR, Huddart SN. Percutaneous retrieval of an intravesical foreign body using direct transurethral visualization: a technique applicable to small children. Br J Urol Int. 1999;83(3)337-8.
10. Tahaoglu M, Ozturk S, Ozturk H. Self-insertion of needle as urethral foreign body after sexual gratification: an unusual case report. Pediatr Urol Case Rep. 2014;1(5):10-4.
11. Wyman A, Kinder RB. Squamous cell carcinoma of the bladder associated with intrapelvic foreign bodies. Br J Urol. 1988;61(5):460.

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