Vesical calculus on a foreign body - a case report

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ABSTRACT
We report a case of bobby hair pin foreign body as a nidus for the information of a large vesical calculus. Presentation of the case was unusual and the discovery of calculus on foreign bdy was a chance finding. Approximate duration of insertion of foreign body into the bladder should have been 8 to 10 years. Psychosomatic changes of the patient are considered to be due to her chronic urinary illness, which slowly improved after surgery.

Keywords: Calculus, urinary bladder, foreign body.

Saudi Medical Journal 1998; Vol. 19 (1) : 78-80

Varieties of foreign bodies have been reported and removed from the urinary bladder. Incidence is more in females. Most of the times, foreign body has been self-introduced in a person with abnormal psyche, sexual perversion, intoxication, for masturbation, eroticism and abortion. Stone formation over a foreign body is reported in the literature. Large stone formation like in the present case, are few on record.

Case report. A 21 year old unmarried girl of Tunisian origin was brought to the hospital by her divorced mother for the confirmation of virginity. On interrogation about the suspicion of virginity, the mother told that the girl was staying with her father since the age of ten years. Now the father has abandoned the girl due to her abnormal behaviour and mentality. However, the father did not care for the daughter much and for most of the time he was out of the house. Circumstances of the house and poor mental status of the patient, made the mother suspicious about her daughter’s virginity.

Patient had itching of the vulva area, prevaginal discharge, dribbling and frequency of urine, strangury, irregular menstrual periods and disturbance of sleep since a long time.

On examination, the patient was very fearful, apprehensive with poor mental status. Nothing abnormal could be detected in external genitalia. Undergarments had a strong foul smell of dried and dribbling urine. Internal examination could not be done because of virginity. Severe tenderness was present in suprapubic region.

Laboratory investigations: AIDS and VDRL test was negative. Urinalysis revealed pus cells ++, RBC ++, bacteria ++, albumin ++, Hb 14.2gm%. TLC 12100 cells/hpf.

Abdominal ultrasonography revealed bilateral moderate hydronephrosis with dilated ureters. A large calculus was present in markedly thickened and contracted urinary bladder. Besides the large calculus, a long echogenic shadow was also detected in the bladder. The exact nature of this long echogenic shadow could not be identified in contracted bladder and was partially obscured by the large calculus. Therefore X-Ray of pelvis was advised.

X-Ray of pelvis showed a full size bobby pin with a large stone in vesical area (Fig. 1).

Suprapubic cystolithotomy was done. A thinned out, rusted bobby hair pin (7 cms), situated in the center of a large calculus (5 cms x 3 cms) was removed (Fig. 2) with difficulty from the grossly contracted bladder. Vesical capacity was reduced to the size of a stone. Bladder wall was markedly thickened and inflamed. Postoperative recover was uneventful.

Discussion. Variety of foreign bodies like knitting needles, lead and slate pencils, hairs, paint brushes, hat pins, feathers, electric cords, button hooks, watch chain, leather shoe laces, pieces of straw, chewing gum, plastics, was, thermometer, tooth picks, candles etc, have been extracted from the urinary bladder of both sexes. Most of the time these foreign bodies were self-introduced by the patient.
with senility, prostatism, sexual perversion, abnormal psyche, alcoholism, for masturbation, eroticism, abortion. Penetrating splinter foreign bodies have been removed from the urinary bladder. Iatrogenic foreign bodies like surgical gauze after prostatectomy, bougies, tip of cystoscope and broken ureteric catheter have also been reported.

The incidence of foreign bodies in urinary bladder is more common in females than males.

Living foreign bodies like snake, was removed from bladder in Prague (Sternthal, quoted by Winsbury - white) and Mukherjee removed as a cattle leach, which entered through the urethral meatus in a female while working in water - logged field in squatting position.

Self-introduced metallic and wooden foreign bodies have also been recovered from the urinary bladder. Jain removed a 5 cm long iron nail from the urinary bladder which was inserted through congenitally deformed urethra of a mild psychotic patient. He also reported two more cases, one was an old Somali woman who introduced two bamboo splinters into the vagina for sexual gratification, which instead slipped into the urethra. Another patient presented as a case of vesico-rectal fistula after self-introduction of two bamboo splinters per-rectally, which penetrated through the anterior wall of rectum and base of urinary bladder.

Few cases of stone formation over the foreign body in bladder are also on record. Frozanpour reported stone formation over a long pencil in bladder of an 18 year old unmarried girl from Tehran, who used it for satisfying her sexual desire. Champakam and Parashar reported stone formation on foreign body which was used for inducing abortion in a 24 year old female. Gupta reported two male patients of self-introduced candle-sticks in the urinary bladder. In one case, crust and early stone formation around the candle were present. Rose quoted two authors, mentioning about two unusual cases of migration of foreign bodies into the bladder through an ulcerated diverticulum of gastrointestinal tract attached to the bladder.

Our patient presented in a very unusual way. She was brought to the hospital for verification of virginity and not for urinary complaints. The discovery of stone formation around the bobby hair pin was just by chance. From the large size of the calculus, rusted and thinned out condition of bobby pin, markedly thick and contracted bladder, hydronephrosis, and the time of breaking up of family, we conclude that the patient probably introduced bobby pin about 8 - 10 years earlier in her late childhood and forgot about it. Neglected child of a broken family with long suffering from chronic irritation by foreign body, calculus and urinary tract infection led the patient to her psychosomatic changes.
References