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Unusual foreign bodies in urinary bladder: point of technique for their retrieval

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Introduction

Endoscopic retrieval of foreign bodies has always been a challenge and quite satisfying procedure if done properly. A variety of foreign bodies are encountered in urologic practice such as eyebrow pencil, wrist watch, Blu-Tack, which were introduced by the patients (1). Iatrogenically introduced foreign bodies are also encountered. Herein, we are reporting four interesting cases of retained catheter tip with inflated foley balloon, necessitating endoscopic manipulation and their retrieval by two new techniques.

Case reports

Case 1: K. R. 80 old year male farmer was treated for acute retention of urine by a 1ocal practioner using indwelling foley catheter. The patient found the catheter so intolerable that he pulled it out one night. The next morning catheter was shown to the doctor, who noticed that it's tip with balloon was missing. Then patient was referred to us for further management. An ultrasound examination revealed an anechoic mass lesion, freely mobile, consistent with inflated Foley balloon along with tip of the catheter (Figure 1), It was removed successfully by the first point of technique.

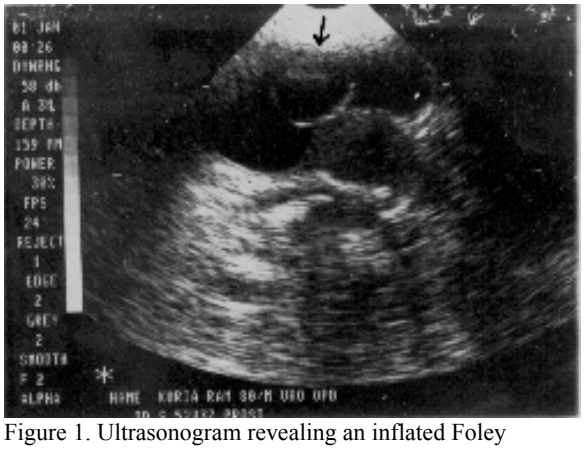

Figure 1. Ultrasonogram revealing an inflated Foley balloon with tip of catheter (arrow).

Case 2: N.L., 53-year old male was catheterized at a peripheral hospital for difficulty in passing urine. One day, while travelling the catheter got inadvertently pulled out resulting in passage of some urine and pain. Ultrasonography as a part of routine work up for benign hyperplasia of prostate revealed a well circumscribed, mobile, anechoic mass ·with catheter tip in the urinary bladder. It raised the suspicion of retained foley balloon in the view of history given by the patient. It was also retrieved endoscopically by the first point of technique.

Case 3: A 40-year old male was referred from other department in our hospital for the problem of retained foley balloon with catheter. This was removed by the second point of technique.

Case 4: M. S. 56-year old male was sent to us from the different hospital for the similar problem of retained catheter with bal1oon. Cystoscopy revealed inflated foley balloon with catheter. The catheter was studded with encrustations. It was retrieved by the second point of technique.

POINT OF TECHNIQUE

First technique: Foreign body (FB) in urinary bladder is a deceptively simple thing to catch endoscopically. The challenge is greater if the F.B. happens to be mobile with its own dynamics inside the urine or water filled bladder. The spherical latex rubber balloon with little amount of air makes it of lighter density than water. Therefore, it has tendency to float in urinary bladder. In an adequately filled bladder it rests near the dome almost hiding itself. Once visualized, attempts to puncture it with Sachse's knife are frustating because of the great mobility of the balloon owing to its friction less smooth surface. The possibility of cutting through the balloon with diathermy is out, due to the fact that latex rubber is a poor conductor of electricity. The touch of the instrument sets the balloon rolling with no control of direction or velocity compounded by an unpredictable rebound from ungeometrical interior of the bladder. In both case 1 and case 2 the bladder was evacuated of excess water and the balloon was trapped in the small space to be punctured with the Sachse's knife. Thus, puncture with Sachse's knife was successful in both first two cases.

Second technique: A fine hypodermic need1e was broken at the hub and it's proximal part was fed through the eye of biops'y forceps to twist around it, so as to make it stable and now only 2mm tip of needle is protruding out of cup of biopsy forceps,

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which is utilized to puncture the bal1oon. A 19F cystoscopic sheath is passed, bladder is emptied, and surgeon's left hand is placed over the abdomen to abut the balloon against the cystoscopic sheath, then biopsy forceps loaded with needle is taken inside the sheath to puncture the balloon: This technique was utilized successfully in case 3 and case 4.

Discussion

A wide range of foreign bodies in the bladder have been reported in the literature (1). Iatrogenic foreign bodies include retained urethral catheter tip, tip of ureteric catheter, broken stent, beak of cystoscope, filiform guide, thermometer tip, retained gauze piece, and suture material (2). However, retained inflalted balloon of foley catheter is a very unusual kind of foreign body. Quite often difficulty in removal of foreign body has been encountered and sometimes one had to use Amplatz Renal dilator sheath to manipulate an eyebrow pencil out of urinary bladder (3). Occasionally, a small trick may help in retrieving the foreign body (4). Since, no specific technique is described in the literature for these types of foreign bodies we developed these two techniques out of necessity to overcome such situations.

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