

A FOUR-YEAR FORGOTTEN URINARY CATHETER IN A SEXUALLY ACTIVE YOUNG MALE AND ITS MANAGEMENT: A CASE REPORT

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Abstract

The urinary catheters' mean indwelled duration after PIUR (primary interventional urethral realignment) is 25 days. Only four cases of forgotten urinary catheter were reported in the literature. The objective of this clinical case report is to highlight the unusual finding of a four-years forgotten urinary catheter in a young sexually active 23-year-old man and its management, aspiring future similar endeavors. A 23-year-old man presented to the hospital exhibiting severe supra-pubic pain and inability to urinate for one day. He described undergoing PIUR for a traumatic urethral rupture four years ago. An indwelling urinary catheter was placed subsequently, that he claims being removed by his physician 21 days later. Urinary hesitancy and frequency were reported since then, maintaining normal sexual activity. Based on having a tender vesicular globe, and a disclosed rod inside his penis, he was diagnosed with urinary retention by a foreign body and admitted to the hospital for further investigations. Vesicular decompression by a supra-pubic catheter was performed. A non-contrast pelvic CT scan revealed a calcified elongated structure suspecting an encrusted retained urinary catheter. In the operating room, rigid ureteroscope with the assistance of lithotripsy were proficient in fragmenting only intra-urethral calcifications. Sequentially, an open cystolithotomy evacuated the remaining calcified vesicular balloon. Patient was asymptomatic on subsequent visits denying any urinary symptoms and stating normal sexual activity. Removing such a foreign body, especially when severely encrusted as well as avoiding trauma to the urethra while minimizing patient morbidity remain a clinical confront for the surgeon. Hence, minimally invasive procedures are always preferred. In this case, we had to assist the rigid ureteroscope and the lithotripsy by an open cystolithotomy for the large calcified balloon. Nevertheless, this method has proved to be safe and efficient. Thus, it is suggested to be used in future comparable cases.

Keywords

Forgotten, Urinary, Catheter, Sexually active, Young

1. INTRODUCTION

Indwelling urethral catheters are widely used in clinical practice and play an imperative role in the management of urethral trauma. (Martínez-Piñeiro et al, 2010) Knowing that most urologist favor its withdrawal as soon as achievable, the mean duration of urethral catheterization after PIUR (primary interventional urethral realignment) is 25 days (ranging from 9 to 65 days). (Lee et al, 2016) Nevertheless, four forgotten urethral catheters in the elderly were reported in the literature, none of which reported a normal sexual life. (Weingarten et al, 1965; Liu et al, 2013; Bendaña et al, 2011; Hong et al, 2014) We present a case of a young male patient who maintained a normal sexual activity in the presence of a forgotten urinary catheter of four years duration along with the management provided.

2. CASE

We're introducing a case of a 23-year-old man presenting to the Emergency Department with severe supra-pubic pain and inability to urinate since one day.

Upon further questioning, the patient reported being involved in a motor vehicle collision four years ago, for which he was admitted to a different hospital due to urethral rupture along with spinal fractures. He underwent urethroplasty back then with a stent placement. An indwelling urinary catheter was also inserted, planned to be withdrawn 21 days post-surgery. According to the patient, he visited the doctor for follow up as scheduled and mentioned that the foley catheter was removed. Note that the patient is a poor historian given the language barrier; he's Indian with poor Arabic speech.

Since then, he developed difficulty urinating that was only resolved by crouching down. He also had urinary frequency (up to 10 times per day) of small urine volumes. He denied urinary incontinence. Additionally, he claimed a brief period of painful sexual activity at first that later returned to normal including normal ejaculation. The patient didn't get any further hospitalization.

Abdominal examination revealed tender large vesicular globe, whereas penile examination disclosed a rod inside the penis. Manual attempt to remove the visualized rod failed, causing some degree of pain to the patient followed by passage of a small volume of urine. The rest of the physical exam was non-revealing.

At that time, a supra-pubic catheter was inserted which drained approximately 1200cc of urine. The patient was admitted to the hospital for additional investigations. Urine sample was collected for analysis and culture. Broad spectrum antibiotic, Ceftriaxone, was initiated. Analysis showed numerous white blood cells and numerous red blood cells on high power field, as well as 2+ triple phosphate crystals on low power field and a urine PH of 8. Urine culture showed a mix of Gram-positive and Gram-negative bacteria.

A non-contrast pelvic CT scan revealed a calcified oval shaped foreign body inside the bladder, obstructing the bladder neck, and continuously connected throughout the penis to the distal urethra by a porcelain like tube structure. Severe bladder wall thickening was also noted. Suspicion of a retained urinary catheter was then made. (as shown in Fig. 1)

Seeing this, the urology team decided to operate via endoscopy by using a rigid ureteroscope and a lithoclast machine in attempt to break the enclosed calcifications so as to not cause unnecessary trauma to the urethra by means of open surgery. In the setting of our hospital, there was no financial ability to perform the procedure using laser technology.

Under general anesthesia, the lithoclast successfully broke apart the intra-urethral calcifications, however entry inside the bladder proved to be difficult as the calcified catheter was encrusted around the bladder neck hence the large calcification around the intravesicular balloon could not be disintegrated via the utilization of endoscopic means. Subsequently, an open cystolithotomy was performed via abdominal low midline incision and the calcified balloon was carefully dissected around the bladder neck to maintain continence and was removed along with the remaining parts of the catheter. (as shown in Fig. 2)

The bladder was then washed thoroughly, and a new urinary catheter was inserted, conserving the supra-pubic catheter in place. Few days later, the patient was discharged home in a stable condition with both urinary catheters. Two weeks past his surgery, he was readmitted and only the indwelling urinary catheter was removed, yet the suprapubic catheter remained in position.

One month after the surgery, the patient underwent a follow up cystoscopy that was unremarkable. The supra-pubic catheter was then clamped bed side giving him the opportunity to void spontaneously which was successfully achieved after 3 hours of clamping. Accordingly, supra-pubic catheter was removed, and patient was discharged home. One month later, he presented for follow up and mentioned normal urination, no more urinary frequency, and normal sexual activity.



Fig.1: Sagittal CT scan showing a foreign body extending from the bladder to the tip of the penis.



Fig.2: Retained Foley Catheter after surgical removal.

3. DISCUSSION

A forgotten urinary catheter is rarely seen in clinical practice and only four reported cases were found in our literature review. (Weingarten et al, 1965; Liu et al, 2013; Bendaña et al, 2011; Hong et al, 2014) Management of such cases usually begins with relieving the obstruction to improve patient symptoms as well as to decrease the risk of bacteriuria and kidney injury. This is mainly done by the insertion of a suprapubic catheter as performed to our patient. (Kidd et al, 2015)

An important complication can arise from a forgotten urinary catheter including encrustation which was reported in about half of the patients who underwent long-term placement of a urethral catheter. (Getliffe et al, 2000) Removing such a foreign body, especially when severely encrusted as well as avoiding trauma to the urethra while minimizing patient morbidity remain a clinical confront for the physician. (Liu et al, 2013) Hence minimally invasive procedures are always preferred.

In contrast to previously reported cases which were in males of above 60 years of age, our case is the first to be encountered in a young 23 year old man who reported having normal sexual activity along with normal ejaculations in these past four years. This difference made our management even more challenging, trying to avoid an open urethroplasty, aiming to achieve the best outcome and to preserve normal sexual functions for this patient.

Different methods were used formerly in order to remove encrusted catheters and the two most recent reports, which were the less invasive, included the use of a flexible cystoscope with the assistance of a rigid ureteroscope and direct crushing of encrustations via laser. (Liu et al, 2013; Bendaña et al, 2011)

Since Ben Liu et al. reported that their intervention was simple and safe; we attempted to duplicate the procedure using the rigid ureteroscope and a lithoclast machine in order to remove the incarcerated catheter. Unfortunately, the balloon was severely encrusted and could not be disintegrated so we shifted to an open cystolithotomy.

Our method showed effective too and proved to be safe as the patient fully recovered in terms of normal urinary flow and normal sexual activity.

One of our major limitations was the absence of the laser technology which led us to switch directly to a mechanical lithotripsy. The language barrier between the physician and the patient also prevented us from obtaining thorough medical history. The follow up time performed did not exceed the 3 months postop period as the patient had to travel back to his home country.

4. CONCLUSION AND RECOMMENDATIONS

In this case, we had to go for an open cystolithotomy for the large vesicular calcified balloon, along with the lithoclast and the rigid ureteroscope to remove the encrusted urethral part. Nevertheless, the management of this rare case of a forgotten urinary catheter in a young sexually active male turned out successful. This method is recommended to be used in future comparable cases as it demonstrated to be safe and efficient in avoiding any possible trauma to the urethra while conserving the sexual functions.

5. ETHICAL APPROVAL

The patient gave consent to share his case without any identifiers. This study was approved by the institutional review board of the Beirut Arab University.

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