

## Case Report

# Retained Urethral Catheter Secondary to Bladder Stone in a 70years Old Man with Huge Prostate

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Received January 09, 2018; Accepted February 01, 2018 Published February 02, 2018

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## Abstract

**Introduction:** Prolonged urethral catheterization can cause retained catheter

**Key Words:** Retained catheter; bladder stone; prostate

**Case:** 70 years old with BPH, with retained catheter due to huge stone, he had extraction of the stone and prostatectomy.

**Discussion:** our patient presented with six months prolonged catheterization and Argarwal et al reported 3 months.

**Conclusion:** retained catheter can be caused by stone around the tip of the catheter.

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## INTRODUCTION

By the time a urethral catheter is retained in a 70 years old man, who was catheterised due to acute urine retention and left unchanged for six months prior to presentation, the scenario is as dramatic as anyone can imagine and this is exactly what happened to our patient.

Urethral cauterization is an important armamentarium in the management of patient with bladder outlet obstruction due to benign prostatic hyperplasia (BPH), [1] however if left unchanged for a long time it can lead to encrustation and subsequent stone formation causing retained urethral catheter [1-3].

This problem can arise as a result of many causes ranging from a faulty balloon channel, encrustation and crystallization to stone formation around the tip of the catheter or the balloon making it difficult to be removed conventionally [4-7].

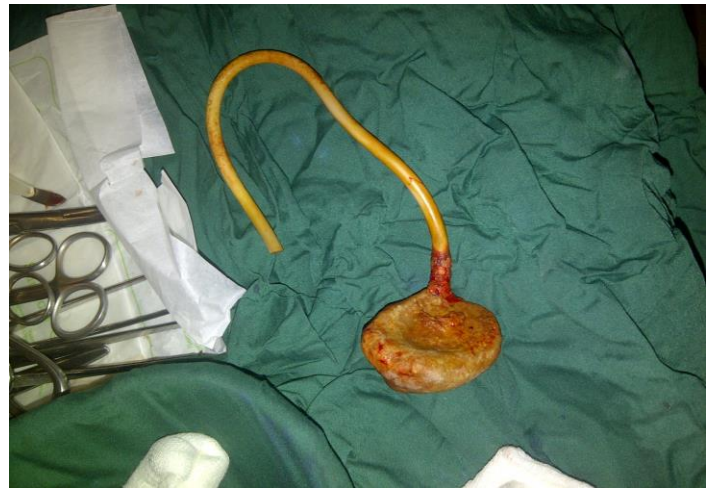
## CASE DESCRIPTION

Our patient is a 70 year old male patient, who was referred to us with history of lower urinary tract symptoms which waxes and wanes for one year, it progressed and culminate into acute urine retention that was relieved by easy urethral catheterisation, however the catheter was not changed for six months until when his son came from the city and asked how upon is the catheter changed, the other siblings replied in negative and this necessitate attempt at removal of the catheter from the referring hospital and it was found to be retained which prompted the referral to us.

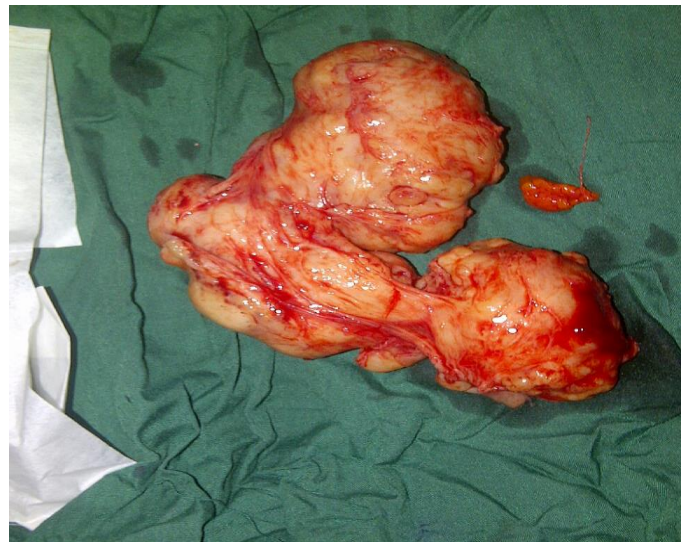
On physical examination he was anxious not pale, not dehydrated, Abdomen was full with an old urethral catheter in situ draining turbid urine, digital rectal examination revealed a huge prostate about 200g with benign features, he has normal intrascrotal testicles.

Attempt at removal of the catheter by the urology team was abortive, an assessment of bladder outlet obstruction (BOO) secondary to Benign Prostatic Hyperplasia (BPH) with retained catheter due to stone was made, he was investigated and Abdominopelvic ultrasound scan showed prostatomegaly measuring 208g with a stone around the tip of the catheter, his serum Prostate Specific Antigen (PSA) was 7.0mmol/L, serum Urea, Electrolytes & Creatinine were within normal limit, Urine Microscopy Culture & Sensitivity showed numerous pus cells.

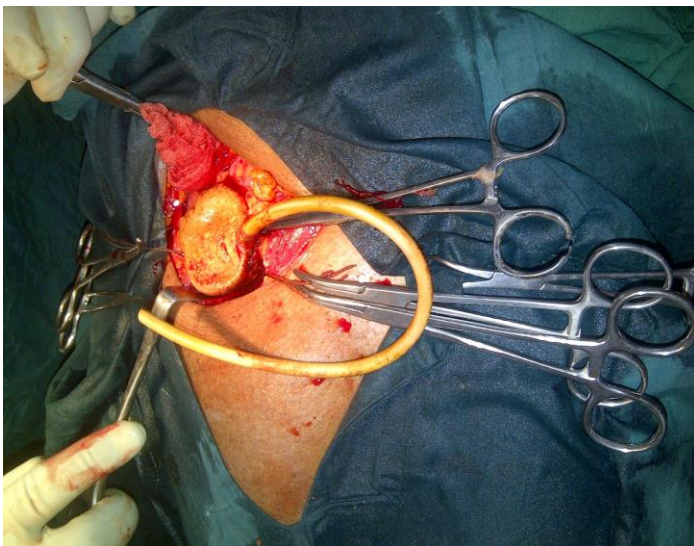
He was resuscitated with parenteral antibiotics and intravenous fluids, we grouped and crossed matched two pints of blood, we prepared the patient for transvesical prostatectomy under spinal anaesthesia, in a supine position through a pfannenstiell incision the bladder was opened, we found a huge stone around the tip of the catheter measuring about 8cm by 6cm ( figure.1) and it weight 60g, so we cut the catheter and extracted the stone from the bladder and removed the remaining catheter per urethra,(figure.2) the prostatic adenoma was mobilised and enucleated, ( figure.3) we achieved haemostasis and commenced bladder irrigation, patient did well immediate post op, however he developed superficial surgical site infection necessitating daily dressing and antibiotics, patient was discharged home 21 days post op,(figure.4) he is now voiding normally



**Figure 2:** The remaining part of the Foleys catheter with stone around the tip of the catheter



**Figure 3:** Enuclated prostatic adenoma



**Figure 1:** Huge bladder stone around the tip of the urethral catheter



**Figure 4:** 21 days post operatively with surgical site healing well

## Discussion

Retained urethral catheter is caused by several causes, which include encrustation by mineral salts, prolonged urethral catheterization is associated with a lot of problems ranging from

encrustation, stone formation and in some cases squamous malignant transformation with its consequences [6, 8].

There are many ways of managing patients with retained urethral catheter, it can be removed by minimal invasive techniques such as extracorporal shock wave lithotripsy or intraluminal pneumatic lithotripsy, especially in those patients presenting with small stones, but in patients with huge stone such as our patient it has to be by open cystolithotomy as reported by Agarwal et al [6].

Our patient presented with six months history of unchanged urethral catheterization which is longer than 3 months reported by Kunzman et al [5], however Agarwal et al reported prolonged catheterization for 2 years, and Maison et al [9] also reported 2 years of neglected prolonged catheterization, but Zomorodi et al [10] reported stone formation just 3 weeks after urethral catheterization.

Therefore it is very important to always change urethral catheter at regular interval to avoid this problem.

## CONCLUSION

Retained catheter can be caused by stone around the tip of the catheter, which is associated with a lot of complications, as such regular changing of catheter is very important in managing patients with catheter.

## KEY CLINICAL WORDS

Prolonged urethral catheterization is usually associated with multiple complications, ranging from encrustation to stone formation causing retained catheter and sometimes malignant transformation therefore whenever a patient requires urethral catheterization, the catheter must be change at intervals depending on the type of the catheter used, our patient presented with neglected prolonged urethral catheter for six months.

## References

1. Sarpal R, Agarwal S, Pathak P, Biswas M, Mittal A, et al., (2016) Retained Foreign Body in Urinary Bladder: A case report, *Imperial Journal of Interdisciplinary Research*, 2: 404-405.
2. Roger CL. Feneley , Kunin MC, Stickler JD (2011) An indwelling urinary catheter for the 21st century, 109: 1746 – 1749.
3. Khan Z, Khan UT, Khan I, Khan NT (2012) A Novel, Safe Way of Removing Non-Deflatable Bladder Catheter, *Open Journal of Urology*, 2: 243-245.
4. Christopher CK, Khandasamy YH, Singam P, Goh HE, Zainuddin MZ (2010) Encrusted and incarcerated urinary bladder catheter: what are the options? *Libyan J Med*, 5: 3402-3410.
5. Kunzman ES, Srinadh ES, Lala SM, Albusaidi Q (2002) Management of retained encrusted urethral catheter with extracorporeal shockwave lithotripsy. *Indian J Urol* 19:83-84.
6. Margarita Hollingsworth MD, Francisco Quiroz MD, Michael L. Guralnick, MD (2004) The management of retained F catheters, *The Canadian Journal of Urology*.
7. Agarwal A, Gould J (2014) An unusual consequence of urinary catheter neglect: A giant bladder stone, *Int J Case Rep Images* 5: 427–430.
8. Broomfield RJ, Morgan SD, Khan A, Stickler DJ (2009) Crystalline bacterial biofilm formation on urinary catheters by urease-producing urinary tract pathogens: A simple method of control. *J Med Microbial*, 58 :1367–1375.
9. Maison P, Yenli E (2013) Vesical calculus around neglected foley's catheter:case report, *Case Report*, 2: 106-108.
10. Zomorodi A, Roshandel M, Zomorodi S, Soltani Z (2015) Numerous Bladder Stones: Case report, *Arch Iran Med*. 18: 456–457.