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SM Journal of Urology

Article Information

Received date: Jul 12, 2016 Accepted date: Jul 21, 2016 Published date: Jul 22, 2016

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Keywords Bladder, giant, incontinence, calculus

Article DOI 10.36876/smju.1015

Case Report

An Uncommon Cause of Urge Urinary Incontinence in Female Patient: Huge Bladder Stone

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Abstract

Bladder Stone accounts for 5% of all urinary tract stones. In addition to this, bladder stones are generally seen in male patient and solitary bladder stone is more commonly seen rather than multiple stones. Yet, huge bladder stone over 100 gram is very rare at the published literature, especially in female patient. In this study, we present a female patient presented with urge urinary incontinence and diagnosed with bladder calculi weighed as 780 gram and bilateral hydroureteronephrosis. Patient got relieved all of her complaints secondary to bladder stone and hydroureteronephrosis resolved spontaneously by successful open cystolithotomy. To the our knowledge, this is the first case in the published literature related to huge bladder calculus in female patient without any concomitant disorders facilitated to bladder stone formation such as infravesical obstruction, foreign body and urinary tract infection.

Introduction

Bladder Stones (BS) are the most common presentation type of lower urinary tract stone disease. These stones account for currently 5% of all urinary system stones [1]. The most common causes of BS include bladder outlet obstruction resulting in incomplete emptying, neurogenic voiding dysfunction, foreign body within the bladder and urinary tract infection [2]. BS are more common in men than women and solitary stones are most commonly seen than multiple stones. Yet, huge bladder stone weighed over 100 gram is rarely seen in contemporary urology practice. Various minimally invasive surgical options for the removal of bladder stones have been defined such as transurethral cystolithotripsy and percutaneous suprapubic cystolithotripsy, open cystolithotomy is still seen as the standard surgical approach especially in patient with large bladder stones [3]. In this study, we present a huge BS weighed as 780 gram and presented with Urge Urinary incontinence (UUi) in older female patient.

Case Presentation

A 81 year old female patient presented to our outpatient clinic with complaints of urinary incontinence with urgency and intermittancey. There were no relevant illness such as diabetes mellitus, heart failure and neurogenic disorders and pathologic condition related to urinary tract in her medical history. But she received a hip arthroplasty because of a traumatic collum femoris fracture 2 years ago. There were no remarkable sign in physical examination except her body mass index was 41 and limited mobilization due to unsuccesful previous hip surgery.



OPEN ACCESS ISSN: 2574-8017

How to cite this article Basatac C and Cicek MC. An Uncommon Cause of Urge Urinary Incontinence in Female Patient: Huge Bladder Stone. SM J Urol. 2016; 2(1): 1015. https://dx.doi.org/10.36876/smju.1015

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Figure 2: Huge bladder calculus removed from bladder and weighed as 780 gr.

Comprehensive analyses of blood parameters were virtually normal. Pyuria was not detected at urine analyses and urine culture was sterile. A kidney-ureter-bladder graphy showed a huge opacity located at pelvis. A Computerized tomography demonstrated a huge stone within the bladder measured as 10x9x6 cm and bilateral hydroureteronephrosis (Figure 1 A-B). Primarily, we planned a cystoscopy in order to observe urethra, bladder wall and ureteral orifices but it was impossible to move in to the bladder because of mass effect of stone. Afterwards, open cystolithotomy was carried out and BS was removed from the surgical field. Removed stone was weighed as 780 gr (Figure 2). No intra and post operative complication was occurred. Drain and urethral catheter was removed day after surgery and post operative day 5th respectively. At the last follow up visit, patient got relieved all of her complaints secondary to BS.

Discussion

Urge urinary incontinence is defined as involuntary leakage of urine accompanied by urgency. In addition, it is usually associated with involuntary detrusor contractions on urodynamic evaluation. The other common causes of UUi include neurogenic (Parkinson's disease, suprasacral spinal cord injury, Multiple sclerosis etc.) and nonneurogenic (urinary tract infections, aging, infravesical obstruction, urothelial carcinoma) reasons [4]. However, UUi secondary to huge bladder stone is very rare in current urology practice. In this case, we present an older woman suffering from UUi with huge BS. We think that UUi was associated with a mass effect due to the stone in this patient and after successful open cystolithotomy, The patient described immediate and complete relief of her complaints.

Bladder stone is a relatively common disease but it is rare as in this case to be as large as to cause UUi and bilateral hydroureteronephrosis especially in female patient. Nygaard et al. presented a case of BS weighed as 1640 gr and removed by open cystolithotomy [5]. Moreover, Komeya et al. also reported huge bladder stone caused renal failure in 81 years old male patient [6]. As in the aforementioned reports, huge bladder calculus was almost always described in male patients. To our knowledge, this report is the first case of huge bladder calculus in female patient and presented with UUi. Other unique point of this report is absence of other concomitant disorders related to BS formation such as bladder outlet obstruction, foreign body, and urinary tract infection. According to our opinion, stone formation is related to patient's socioeconomic conditions and limited mobilization. Though various type of endoscopic lithotripters such as pnomotic, ballistic, holmium/yag laser were identified in patient's management with BS, open cystolithotomy is still seen as standart treatment option in the published literature.

Conclusion

Huge bladder stone can be seen commonly in male patient, however, it should be kept in mind that women can be also equipped with huge bladder stone without any common concomitant factors and it may be rare cause of urge urinary incontinence.

References

- Aydogdu O, Telli O, Burgu B, Beduk Y. Infravesical obstruction results as giant bladder calculi. Can Urol Asoc J. 2011; 5: 77-78.
- Hammad FT, Kaya M, Kazım E. Bladder calculi: did the clinical picture change? Urology. 2006; 67: 1154-1158.
- Kal WJ, Moon YT. Percutaneous suprapubic ultrasonic lithotripsy of bladder stones. Korean J Urol. 1996; 37: 898-902.
- Kobashi KC. Evaluation of Patients with Urinary Incontinence and Pelvic Prolapse. In: Wein AJ, Kavoussi LR, Novick AC, Partin AW, Peters CA (eds). Campbell Walsh Urology. Tenth edition. Philadelphia: Elsevier. 2011: 1897-08.
- Nygarrd E, Tersejen T. Giant vesical calculus and anuria. Scand J Urol Nephrol. 1976; 10: 88-90.
- Komeya M, Sahoda T, Sugiura S, Sawada T, Kitami K. A huge bladder calculus causing acute renal failure. Urolithiasis. 2013; 41: 85-87.

