Giant Bladder Stone in a Healthy Young Female: A Case Report

Seyed Mohammadreza Rabani

Department of Urology, Shahid Beheshti Teaching Hospital, Yasuj University of Medical Sciences, Yasuj, Iran

Received: 16 Dec. 2014; Accepted: 6 Jun. 2015

Abstract- Giant or massive bladder stone is a rare condition that is usually seen in men with an underlying urologic problem. Hereby we report a large stone in a healthy young female without any predisposing factor and with the minimal urologic complaint.

Acta Med Iran, 2016;54(11):754-755.

Keywords: Bladder stone; Female; Lower urinary tract stone; Bladder calculi

Introduction

Bladder stone is an old known mankind disease. It is a problem of male and is more common in children of underdeveloped countries and old age men in industrialized countries. Giant bladder stone in a female without any underlying problem is even a rarer entity. The case alone is hence being reported in view of its rarity and persistence of stone from childhood.

Case Report

The patient was a 25-year-old rural lady who presented with frequency from her childhood. She learned not to drink water to escape from troublesome frequency. A hard mass could be palpable on physical examination of the lower abdomen, but the bladder was not distended. Ultrasonography revealed a linear hyperechogenicity and suggested a large stone without hydroureteronephrosis. A plain abdominal X-Ray confirmed the large bladder stone (Figure 1). Routine laboratory data revealed no abnormality except for microhematuria and sterile pyuria.

The patient underwent cystolithotomy, and a large 6.6 by 6.8 cm stone was removed (Figure 2), and a 22F, 3way Foley catheter was inserted into a cystostomy tube. The mucosa of the bladder was severely inflamed and edematous but no evidence for any mass lesion. She was discharged the day after the operation.The postoperative 10 months follow-up was uneventful and without any urologic complaint. Analysis of superficial parts of the stone showed a predominance of ammonium urate composition.

Figure 1. Showing a large bladder stone

Figure 2. Intraoperative large bladder stone

Corresponding Author: S.M. Rabani
Department of Urology, Shahid Beheshti Teaching Hospital, Yasuj University of Medical Sciences, Yasuj, Iran
Tel: +98 917 7411389, Fax: +98 74 33235153, E-mail address: smrrabani@yahoo.com

Discussion

Giant or massive bladder stone is a rare condition in the recent urological practice and men are far more often affected than women.

Bladder calculi have a large history of mankind so that, Archeologists discovered a stone resting in the pelvis of an ancient Egyptian skeleton dating back more than 7000 years (1).

Vesical calculi are usually secondary to bladder outlet obstruction. These patients may present with recurrent urinary tract infection, irritative lower urinary tract symptoms, hematuria or with retention of urine and almost always accompanied by the sign and symptoms of their underlying diseases such as neurogenic bladder, benign prostatic hyperplasia, and prolonged catheterization. Bladder stones may also form on foreign bodies such as fragments of a ruptured Foley balloon, sutures and synthetic tapes or meshes (2,3).

Stav K. and Dwyer PL. in a MEDLINE search from 1950 to 2011 found that only approximately 5% of all bladder stones occur in women and are usually associated with foreign bodies or urinary stasis (3). Although bladder stones are commonly observed with renal or ureteral calculi, they may rarely occur without associated upper urinary tract calculi as in our case (4). Those stones that are primarily formed in the kidney may be struvite stones (in the presence of urinary tract infection) or may be composed of calcium oxalate and uric acid (in the absence of urinary tract infection). Clifford Y Wal and co-workers reported that approximately 50% of all vesical calculi are composed of ammonium urate (5).

In developing nations, bladder stones are common in children, often because of dehydration, infection and a low-protein diet, but in other parts of the world, bladder stones occur primarily in older men (6).

All investigations are suggestive that bladder stones are primarily a problem of male gender, but there are many reports about sizeable bladder stones in female with almost always a predisposing factor for stone formation (3,5,7). In our study we report a unique case of a healthy young female without an underlying problem and considering her history of troublesome frequency from childhood in a rural area, this large stone is a memory of childhood.

Acknowledgment

To the patient who contributed in writing this case report contributing to the medical literature.

References

1. Schwartz BF, Stoller ML. The Vesical Calculus. Urol Clin North 2000;27:333-46.
2. Juan YS, Chen CK, Jang MY, Wang CJ, Chen CK, Jang MY, et al. Foreign Body Stne in the Urinary Bladder: a Case Report. Kaohsiung J Med Sci 2004;20:90-2.
3. Stav K, Dwyer PL. Urinary bladder stones in women. Obstet Gynecol Surv 2012;67:715-25
4. Aydogdu O, Telli O, Burgu B, Beduk Y. Infravesical obstruction results as giant bladder calculi. Can Urol Assoc J 2011;5:E77-8.
5. Wai CY, Margulis V, Baugh BR, Schaffer JI. Multiple Vesical Calculi and complete vaginal vault prolapsed. Am J Obstet Gynecol 2003;189:884-5.
6. Ho KL, Segura JW. Lower urinary tract calculi. Campbell-Walsh urology. 9th ed. Philadelphia: Saunders, 2007:2666-72.