

CASE REPORT

GIANT VESICAL CALCULUS – A CASE REPORT

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HOW TO CITE THIS ARTICLE:

K. S. Hanumanthaiah, Yasaswini H. "Giant Vesical Calculus – A Case Report". Journal of Evolution of Medical and Dental Sciences 2014; Vol. 3, Issue 22, June 02; Page: 6270-6272, DOI: 10.14260/jemds/2014/2733

INTRODUCTION: Until 20th century, bladder stones were one of the most prevalent disorders among the poor class and the incidence was especially high in childhood and adolescent.¹ The decrease in incidence of bladder calculi is attributed mainly to dietary and nutritional progress especially in children.² A solitary bladder calculus is usual, although multiple stones are found in 25% of cases.³

Bladder stones are rare, and they constitute about 5% of all urinary stones,^{4,5} it is classified as migrated from upper urinary tract, primary idiopathic, or secondary calculi.⁶ Bladder stones are managed by Extracorporeal Shockwave Lithotripsy (ESWL), endourology procedures, or open surgery. We report an unusual case of giant vesical calculus weighing 600grams in a 55 year old female with no evidence of hematuria, urinary retention, and dysuria.

CASE REPORT: A 55 year old female was admitted in our hospital with complaints of increased frequency of micturition and abdominal pain for about 6 months prior to admission.

The abdominal and digital rectal examinations were unremarkable. A solitary hard mass was felt during per vaginal examination and it was difficult to characterize it. The abdominal ultrasound revealed? uterine fibroid. X-ray KUB was done which revealed vesicle calculus of approx. 8 X7 cms occupying whole of urinary bladder (Fig. 1). With provisional diagnosis of vesical calculus, decision was taken to subject the patient for cystolithotomy.

A sub-umbilical midline incision was used. The bladder was opened and solitary, irregular shaped, rough surfaced bladder stone weighing 628 grams was removed. It was 9X8 cms in size and brown in color. There were no pathologies in bladder such as diverticulum or tumor. Continuous bladder drain was placed. Postoperative recovery was uneventful. The patient was discharged on 7th post-operative day after removing the abdominal sutures but the catheter was in situ. She was seen after 2weeks without any complication and catheter was removed.



Stone with horizontal measurement



Stone with verticle measurement

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X-ray showing calculi

DISCUSSION: It has been pointed out that, giant bladder stones are rare. The largest recorded calculus weighing 6294 gm. was reported by Arthure in 1953⁷ and this calculus was thought to have been formed in a bladder diverticulum. The calculus reported by Randall (1921)⁸ weighed 1914 gm., that of Powers and Matflerd (1952),⁹ 1410 gm, that of Dorsey (1952),¹⁰ 455 gm and that of Wenger and Berry (1952),¹¹ 154 gm.

Urinary bladder calculi are usually secondary to lower urinary tract obstruction, few stones originally formed in kidneys or ureters and pass into the bladder.¹² Giant bladder calculi are less common in women¹³; this is probably because outlet obstruction is much less commonly encountered in females.

Majority compositions of bladder stones include triple phosphate, calcium carbonate, calcium oxalate and uric acid. In this case, chemical composition was not determined due to lack of facilities.

Surgical treatment of bladder stones has evolved over years from blind insertion of crushing forceps into the bladder to open surgical removal and extracorporeal fragmentation or lithotripsy. Open surgery is the recommended modality of treatment for large stones. In small or moderate stones, endoscopic procedures such as optical mechanical cyst lithotripsy have an added advantage as it can be combined with corrective procedure for the cause of bladder outlet obstruction. Zhaowu et al (1988) have recommended that electrohydraulic shockwave lithotripsy (ESHWL) preferably to be avoided in large, hard bladder stones and diverticular stone or when a stone is stuck to the mucosa.¹⁴ This case was managed by open cystolithotomy in which 600 grams of bladder calculi was extracted. There was no complication associated with the procedure.

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Date of Submission: 19/05/2014.
 Date of Peer Review: 20/05/2014.
 Date of Acceptance: 26/05/2014.
 Date of Publishing: 02/06/2014.