



GIANT PELVIC COCOON WITH INTRA PROSTATIC EXTENSION (INTRAVESICAL TORTOISE!!!!!!!)

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¹ Prasad Mylarappa, ² Pathade Amey ³ Prathvi ⁴ Puvvada Sandeep ⁵ Kailash B Banale ⁶ D. Ramesh ¹Associate professor, ^{2,3,4 & 5} Postgraduate ⁶ Head of Dept, Department of Urology, MS Ramaiah Medical College and Hospital MSRIT Post, new BEL road, Bangalore, India - 560054

ABSTRACT

CORRESPONDENCE :

Dr. Prasad Mylarappa
MS Ramaiah Medical College
and Hospital
MSRIT Post, new BEL road
Bangalore, 560054
India
Email ID:
prasadmyl@rediffmail.com
Mobile No: +919845305742

Giant vesical calculus is a rare clinical entity in the recent urological practice. Males are affected more than the females. We report a case of 55 years old male patient non diabetic or hypertensive who presented with urinary symptoms. His biochemical parameters were within normal limits. Urine analysis and culture sensitivity showed infection. His ultrasonography revealed a giant vesical calculus with intra prostatic extension and bilateral hydronephrosis and small prostate. After controlling the urinary infection with course of antibiotics, he underwent an open cystolithotomy and post-operative recovery was uneventful.

Keywords: Pelvic Cocoon, Vesical calculus, Giant

“Giant vesical calculus is a rare clinical entity, tortoise shaped calculus with intraprostatic extension is still rare and clinicians need to be aware as they are likely to encounter difficulty in surgery”

INTRODUCTION

Giant vesical calculus weighing more than 100grams is a rare entity¹. Fewer than thirty reports are available in the English literature having weight of the stone more than 100grams¹. The largest vesical calculi of 6294grams reported by Arthure et al². While the exact cause for the formation of bladder stones is not completely understood, bladder stone usually occur because of urinary tract infection, obstruction to the urinary tract, enlargement of prostate gland in men or the presence of foreign bodies in the urinary tract. Diet and amount of fluid intake also appears to be important factors in the development of bladder stones. They are more common in men and the majority of these stones are composed of triple phosphate.

CASE REPORT

A 55 years old male patient presented with complaints of severe burning micturition, difficulty in voiding, haematuria, difficulty in passing stools and lower abdominal pain for last five years. Past history of repeated consultation with general practitioners for the above symptoms, for which he was treated symptomatically without further evaluation. On examination he was found to be anaemic with suprapubic tenderness. Rectal examination revealed hard mass in the urinary bladder anteriorly. Routine examination of the urine revealed multiple red blood cells and white blood cells and urine culture was positive for Klebsiella and sensitive to ofloxacin. He was treated with a course of ofloxacin and preoperative repeat urine culture showed no growth.

Ultrasonography of the KUB region revealed presence of a huge vesical calculus with intra prostatic extension measuring 8x6cm with bilateral hydroureteronephrosis. His biochemical parameters i.e. serum calcium, serum uric acid and paratharmone were within normal limits. Plain X-

-ray KUB region showed tortoise shaped calculus in the bladder with intraprostatic extension.



Figure-1 giant vesical calculus with intra prostatic extension

After detailed evaluation and preoptimization of patient, extraperitoneal cystolithotomy with extraction of entire calculus along with its intra prostatic extension was done under spinal anaesthesia and the calculus weighed 383grams. (Figure 1) Thorough bladder wash was given and bladder was sutured in two layers with suprapubic catheter which was retained for 7days. Bladder was drained by 20Fr per urethral Foley's catheter which was kept for ten days and his post-operative recovery was uneventful.

DISCUSSION

Urinary bladder calculi are a rare clinical entity accounting for 5% of all urinary calculi³. Giant vesical calculi weighting more than 100grams are even rarer especially in today's modern urological practice¹. This is supported by the fact that only about thirty cases of urinary bladder calculus weighing more than 100grams have been reported in the English literature¹. The largest one ever reported in the history is of 6294grams by Arthure et al². We are reporting a giant vesical calculus with intra prostatic extension which is one of the rarest clinical case report.

Females are generally less commonly affected than males, as 95% of all bladder stone occur in men^{3,4}. Vesical calculi occur commonly secondary to the renal stone, bladder outlet obstruction and bladder diverticulum⁴. These calculi are seen commonly in males due to benign prostatic hypertrophy or urethral stricture, where as rarer causes such as trauma, catheterisation, neurogenic bladder, foreign body have also been reported. Bladder stones are formed around a foreign body, sutures, catheters or other objects introduced into the bladder and it is thought that a giant vesical calculus develops from a nidus of the infected material or from a single ureteric calculus with progressive layer wise deposition of the calcified matrix. Thus each of the earlier stated factors may mutually contribute to the formation of a calculus⁵. Also studies have indicated that infection may not be the inciting factor in stone formation but may play a major role in further stone crystallisation³.

Major composition of the vesical calculi include triple phosphate, calcium, calcium carbonate and calcium oxalate. Becher et al have reported massive or giant vesical calculus of 235grams with uric acid as the major component with a symmetrical calcium oxalate deposition¹. Our patient had a giant vesical calculus with intraprostatic extension weighing 383grams, its composition consisting of calcium oxalate and triple phosphate.

Patient with giant vesical calculus usually present with recurrent urinary tract infection, haematuria, inability to pass urine, azotaemia⁶ and complaints of suprapubic pain or discomfort may or may not be there. Patients with urinary retention caused by vesical calculus usually pass urine in supine position as calculus obstruct the outlet in erect posture. The majority of the bladder calculi are radioopaque and detected by plain radiograph. Other investigations which can show bladder calculi are ultrasound, CT scan, MRI imaging and IVU out of which CT scan is the investigation of choice as it has remarkable

sensitivity in detecting urinary tract stones, including uric acid stones and also it can reveal the concentric nature of the stones.

Surgical treatment of vesical calculus has evolved over years from blind insertion of crushing forceps into the bladder, to open surgical removal or extra corporeal fragmentation, cystolithotripsy and percutaneous cystolithotripsy out of which open surgery has been the best recommended modality for large stones⁶. In small or moderate calculus endourological procedures such as cystolithotripsy has an added advantages as it can be combined with corrective procedure for bladder outlet obstruction⁷.

Zhaowll et al have recommended that electrohydraulic shock wave lithotripsy preferably to be avoided in the large hard vesical calculus and if the stone is in the diverticulum or stuck to the mucosa as chances of bladder perforation is high⁸.

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