

Large Bladder Stone Protruding Out through the Urethra in a Female Child- A Rare Case Report

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Correspondence Author: Kumar Gaurav Mishra**Conflicts of Interest:** Nil**Introduction**

Giant vesical calculus weighing more than 100 gm are rare. Of the reports written in English, fewer than 85 involve a stone more than 100 gm. Almost all of the articles published in Pubmed are about giant bladder stones that developed secondary to infravesical obstruction. We report a giant urinary bladder stone protruding out through the urethra in a female child.

Case Presentation

- A 8 years old female patient presents with lower abdominal pain, dysuria, increase frequency of micturition, incontinence and intermittent episodes of fever since one year.
- On examination a stony hard mass projecting out through urethra.
- Hb- 10.6 gm/dl, TLC - 8,700/cumm, and s.creatinine- 1.1 mg/dl. S. calcium, phosphate and uric acid levels were normal.
- Urinalysis- 1.WBC- 40-50/hpf 2.RBC- 8-10/hpf 3.Culture- E.coli
- IVU showed urinary bladder almost completely occupied by large solitary calculus and b/l hydronephrosis
- Ultrasonography revealed bilateral hydronephrosis along with a giant vesical calculus.

Treatment

- Surgery- Open cystolithotomy.

- A stone 11x6 cm in size and approximately 150 grams in weight was removed. Biochemical analysis indicated that the stone consists of 90% calcium magnesium ammonium phosphate with 10% calcium carbonate.
- The post-operative period was uneventful. The urethral catheter was removed on the 10th postoperative day and the patient's urinary output was normal. The patient was discharged on post-operative day 12. The patient was voiding normally, despite complaining of mild lower urinary tract symptoms (LUTS), mostly irritative, and occasional episodes of incontinence the bilateral hydronephrosis improved markedly within 3 weeks.

Discussion

- Urolithiasis in children is less commonly due to metabolic or congenital abnormalities.
- Bladder stones in developing nations are more commonly endemic in children because of dehydration, infection, low-protein cereal based diet and phosphate deficiency.
- Pediatric bladder stones most commonly consist of ammonium acid urate with or without calcium oxalate or calcium phosphate.
- Magnesium ammonium phosphate (struvite) is second most common composition.

Conclusion

Metabolic and environmental factors in addition to urogenital anomalies should be evaluated thoroughly in

each patient. The aim of the management should be complete clearance of stones, treatment of urinary tract infection, and preservation of renal function and prevention of stone reoccurrence. Treatment of paediatric urolithiasis requires metabolic evaluation of all patients.

References

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