End-stage renal disease with giant bladder calculus

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A 23-year-old man was admitted with fever, suprapubic pain, dysuria and disorientation. The patient had a ten-year history of recurrent urinary tract infections. He was obtunded, dehydrated, tachycardic (120 bpm), dyspneic (42 rpm) and had abdominal tenderness and signs of peritonitis. The laboratory findings were haemoglobin 9.6 g/dL, haematocrit 29%, serum urea 228 mg/dL, creatinine 7.6 mg/dL, sodium 135 mEq/L, chloride 110 mEq/L, potassium 7.1 mEq/L, albumin 2.4 g/dL, arterial pH 7.29, pCO₂ 15.7 mmHg, HCO₃ 7.5 mEq/L and BE −16.0. The abdominal X-ray showed an elliptical radiopaque mass ~7 cm in its highest diameter in the bladder region (Figure 1). Daily dialysis was performed owing to hyperkalaemia and uremic symptoms. Laparotomy was performed and it revealed a perforation of the bladder wall, a vesical diverticuli and a giant calculus. The urinary cultures were negative. Laboratory analysis showed that the calculus (Figure 2) was made of calcium and oxalate (>80%), uric acid and ammonia. The patient was diagnosed as having a posterior urethral valve and had developed end-stage renal disease. Dialysis therapy has continued for 2 years, and the patient is awaiting renal transplantation.

Discussion

Giant bladder stones are rare. The main risk factors are obstruction of urinary tract and recurrent urinary tract...
Giant bladder stone

infection [1]. These calculi are most commonly found in children with a posterior urethral valve or vesicoureteral reflux [2].

All patients with vesical calculus must undergo a complete urologic investigation searching for causes of urinary stasis, including benign prostatic hypertrophy, urethral stenosis, neurogenic bladder and vesical diverticuli [3].

Conflict of interest statement. None declared.

References


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