GIANT NEPHROURETERIC STONE

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INTRODUCTION

A giant-nephro-uretic stone was removed from the ureter of a 50 year old farmer from North of Pakistan. Recurrent attacks of lower abdominal pain, distension and vomiting were present for the last ten years. Stone was removed by pyelo ureterotomy. His recovery was uneventful.

CASE REPORT

A 50 years old farmer from Charsadda (North East Pakistan) was admitted with a fifteen days history of severe colicky pain in the right side of the abdomen lasting initially for about an hour, later becoming constant. The pain was accompanied by fever, vomiting and abdominal distension. There had been several similar attacks in the last ten years, for which he had received treatment from various doctors.

His general physical examination and systemic examination was unremarkable apart from mild tenderness in the right iliac fossa and right lumbar region.

Plans X-Ray of the abdomen revealed a large radio opaque shadow occupying the pelvis, superior calyx and whole of the right ureter up to the urinary bladder (Fig-1)
Ultrasonography revealed mild hydronephrotic right kidney with hydroureter and reduced cortical thickness to 1 cm. Excretory urogram showed bilateral functioning kidneys with marked hydronephrosis and hydroureter on the right side. Urine examination revealed phosphate crystals, protein, R.B.Cs and numerous pus cells. The culture revealed growth of E-Coli sensitive to quinolones.

Hb was 10 gms%. Blood urea was 23 mg%, S. Phosphorous 4 mg%, S. Potassium 4 meq/L. Serum creatinine 9 mgm%, Serum calcium 10 mgm%, Serum Sodium 140 meq/L, Serum Chloride 105 meq/L.

Through an extended Ruther Ford Morrison incision the ureter was exposed by retroperitoneal approach. It was found dilated to about three quarters of an inch.
It was incised vertically over the stone and the long calculus delivered in two pieces, starting from lower end of the ureter upwards to the kidney pelvis. Ureter was closed with interrupted stitches of 2/0 plain catgut. Drain put in the retroperitoneal space.

DISCUSSION

Giant stones in the ureter have been reported before but are certainly rare. In 1968, Nicholson\(^1\) reported a case of ureteric stone which was formed on an aggregation of many small calculi. Similar radiographic shadows were reported by Nostor 1952, Complani 1954, and Freshman\(^2\) 1953. Freshman operated on his patient seven times to get rid of the stones from the ureter. Similar cases have also been reported by Ninkle and Nostor 1958, Vahkvin 1960 and Simons 1961. In 1968 Saner\(^3\) described a massive stone in a duplicated left ureter. Many ways have been described to deal with the kidney and ureteric stones. These include open and closed methods. The later include percutaneous, extracorporeal lithotripsy and endourological techniques. In February 1989 Singapore Medical Journal reported the role of percutaneous ultrasonic lithotripsy in the management of renal and upper ureteric calculi. Lee et al managed 120 cases of staghorn/ureteric calculi in 1987 by Endo-Urologic technique.\(^4\) It is interesting that this patient had urinary symptoms for 10 years for which he received treatment from various doctors. Not surprisingly, in view of the massive stones in the ureter, he had hydrenephrosis but the renal function was still reasonably well preserved.

The stone came out in two pieces. Upper part was dark, while the lower portion was whitish in colour. The total length of the stone was 30 cms (Fig-2). Inspite of this big stone in the right ureter and kidney it did not completely obstruct the outflow of urine and thus the function of the kidney, which was hydrenephrotic remained reasonably preserved. One presumes that kidney should recover after the removal of the calculus and the hydrenephrosis should improve. The lower end of the ureter was patent, rather bigger than normal size and there were no congenital anomalies. The upper stone presumably arose in the kidney and passed down the ureter where it gradually increased in size. The second stone which had grown to enormous size in the ureter itself was whitish in colour, like phosphate stone and had taken 10 years to grow to the present size.

REFERENCES