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Mini-series of variety of giant renal calculi associated with pelviureteric junction obstruction and hypoganglionosis

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Clinical image description

Giant right renal phosphate stone: A 40-year-old male patient from rural area who was diagnosed with mild pelviureteric junction hydronephrosis and congenital colorectal motility disorder with chronic constipation since infancy treated conservatively presented with right loin pain and plain abdominal radiograph showed a giant right renal calculus (Figure 1A), Ultrasound and MAG3 scans confirmed mild pelviureteric junction obstruction with equal function on both sides. And no vesicoureteral reflux on indirect scan. The patient underwent right pyelolithotomy with Y-V pyeloplasty through minimal invasive lumbotomy approach. The phosphate giant calculus was 8 X 5 cm in size and weighing 150 gm (Figure 1B). As the patient was still symptomatic with his bowel dysfunction, the patient underwent transanal full thickness rectal biopsy together with internal sphinerotomy and extended midline circular myectomy for 7 cm length similar to Heller's cardiomyotomy for achalasia cardia uneventfully. Histopathological examination of the rectal biopsy confirmed hypoganglionosis. His post-operative period was uneventful, He is currently 78 years of age and asymptomatic, no recurrence of urolithiasis and enjoying normal health.

Giant oxalate left renal stone: A 35-year-old male farmer who had been diagnosed with mild left pelviureteric junction obstruction and had bowel and bladder dysfunction dur-

ing early childhood treated conservatively presented with left sided loin pain and microscopic hematuria with altered bowel habit from chronic constipation to constipation and diarrhea intermittently. KUB radiograph and ultrasound confirmed giant oxalate left renal stone with dilated extrarenal pelvis. Barium enema showed reversed rectosigmoid ratio with hugely dilated upper rectum and a free ileocecal reflux. The patient underwent minimal invasive left lumbotomy approach with extended pyelolithotomy with slow and delicate renal sinus calyceal extension of the pelvic incision and gently delivering the calculus followed by Y-V pyeloplasty. Simultaneous transanal endosurgical diagnostic and therapeutic procedure similar to case 1 was performed uneventfully. The oxalate stone measured 8 X 7 cm in size and weighed 165 gm. The histopathology of rectal biopsy confirmed hypoganglionosis. The patent is 65-years-old now and has no bowel or urinary symptoms, The ultrasound and plain abdominal radiograph are normal.

Giant staghorn left renal calculi: A-30-years-old male who had mild to moderate left pelviureteric junction obstruction during childhood and chronic refractory constipation in infancy and childhood treated conservatively presented with left abdominal and loin pain associated with severe constipation. Abdominal examination showed rectosigmoid and left colonic fecal loading. Plain abdominal radiograph showed solitary giant left renal staghorn calculus and rectosigmoid loading. All laboratory investigations including urine culture were normal. Ultrasound and MAG3 scans confirmed moderately dilated extrarenal pelvis with pelviureteric junction obstruction, function right kidney 52% and left 48% with no vesicoureteral reflux on indirect MAG3 scan, The patient underwent left extended pyelolithotomy with Y-V pyeloplasty and transanal endosurgical correction similar to case 1 above. The staghorn calculus measured 7 X 6 cm in size and weight 65 gm. Rectal biopsy confirmed hypoganglionosis. The post-operative period was uneventful and at last follow up 30 years after the surgery, patient remains asymptomatic bowel and urinary system wise, enjoying a very good health and there is no recurrence of urinary stone at ultrasound and radiological examination.

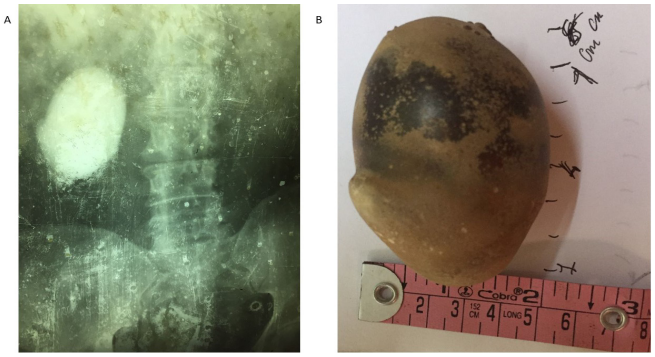

Figure 1: (A). Abdominal radiograph showing right renal giant phosphate calculus (B). Actual stone removed with measurements.

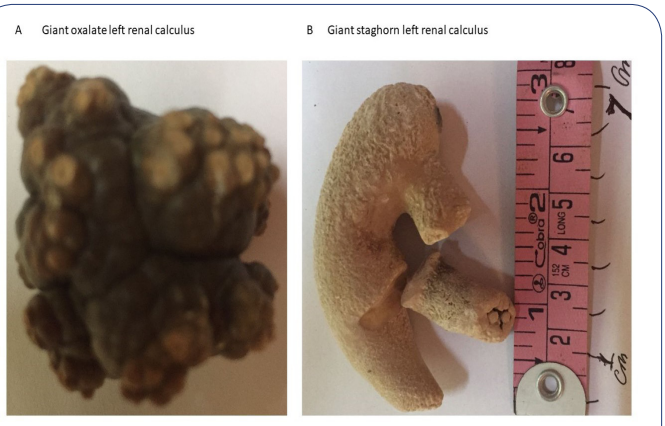

Figure 2: (A). Left giant oxalate renal calculus after removal (B). Left giant staghorn calculus with measurements.

Declarations

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