Outcome of pediatric ureterorenoscopy – Single center experience

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Introduction: In present times endoscopic treatment of renal and ureteral calculi in children has become possible due to miniaturization of endoscopic instruments. We hereby share our single center experience of ureterorenoscopy for management of ureteric and renal stones in children.

Material and Methods: A retrospective chart review was performed of 37 patients with mean age of 8.36±5.17 years who underwent ureterorenoscopy for the treatment of ureteral or renal calculi at our institution from January 2011 to December 2013. Data regarding mean stone size, stone location, stone clearance and complications was collected and recorded on specified proforma. Data was analysed on SPSS16.

Results: Total of 37 children with mean age of 8.36±5.17 years were included. 25 (67.6%) patients were male whereas 12 (32.4%) patients were female. Mean stone size was 10.01±6.24mm. Location wise 25 (67.56%) patients had renal (pelvic and upper pole) and upper ureteric stones, 5 patients (13.5%) had mid ureteric stones and 7 (18.9%) patients had distal ureteric stones. 22 (59.5%) children required one procedure while 15 (40.5%) children required 2 ureteroscopies. Those with renal and upper ureter stones required second relook ureteroscopy in 13 (52%) patients out of 25 patients, while only 1 out of 5 (20%) patient in mid ureter stone required second URS and 1 out of 7 (14.28%) patients needed second URS. Overall stone clearance rate was 96.48±5.11%. Stone clearance in renal and upper ureter stones was 95.4%, in mid ureter 100% stone clearance and in distal ureter it was 97.85%. There postoperative complications in our study. Stent was left in place in 30 (81.1%) cases.

Conclusion: Ureterorenoscopy is a safe and effective procedure for removal of ureteral and renal stones in children.