Ureteroscopy in the Acute Management of Ureteric Stones: Retrospective Study of a One-Year Experience

Introduction and Objectives: To describe a single-centre experience of ureteroscopy for the acute management of ureteric stones.
Materials and Methods: A retrospective review of 220 patients who underwent an acute ureteroscopy for a ureteric stone from January 2010 to December 2010 was undertaken. Ureteroscopy was attempted with a rigid ureteroscope initially with the aim of complete stone removal. Fragmentation of the stone was performed with laser when required. Flexible ureteroscope was available. Stent or catheter insertion at the end of the procedure was at the discretion of the surgeon.
Results: The stone was in the lower third in 36% of the cases. The median size of the stone was 7 millimetres [4–25] with the median time of surgery 33 minutes [6–109]. Balloon dilatation of the ureteric orifice was done in 28% of the cases to gain access to the ureter. The flexible ureteroscope was used in 11% of the cases. A 24 hour ureteric catheter or a JJ stent was inserted at the end of the procedure in 39% and 50% of cases respectively. In 73% of cases the ureteric stone was successfully treated. In 7% of the cases the ureter was too tight and in 4.5% there was a residual fragment of more than 3 mm when the patient was reviewed. The stone was initially pushed back into the kidney in 23.5% of the cases, but the use of the flexible ureteroscope in some of these patients reduced the associated overall failure rate to 13.5%. There were no major peri-operative complications. Of the patients, 18% had to be readmitted mainly because of pain, and 22% needed a second procedure for definitive management of their stone.
Conclusions: Ureteroscopy in the acute management of ureteric calculi is a safe procedure. The success rate can be increased using the full range of modern endo-urological equipment, especially laser and flexible ureteroscopy.