Clinical Outcomes in Management of Calculus Anuria Using Ureteroscopy

Introduction and Objective: We reviewed our experience with emergency ureteroscopy (URS) for ureteral calculi that was associated with acute kidney injury (AKI).
Materials and Methods: We retrospectively evaluated the 59 patients /86 ureteral units (UU)/ who underwent URS for AKI: the cause of anuria was bilateral obstruction by the calculi in 27 cases, unilateral obstruction with /absent/ nephrectomised contralateral kidney in 32 cases. In the case of bilateral synchronous ureteric calculi bilateral same-session ureteroscopy (SSBU) was done. A standard diagnostic algorithm was used before and after procedure. A semirigid ureteroscope was used in all cases and intracorporeal lithotripsy with electrokinetic energy was performed. The duration of anuria varied between 12 to 72 hours. In all patients surgery was performed 6-12 hours after admission to hospital. Ureteral stent placement was performed in all cases after lithotripsy/bilateral after SSBU. Patients were followed at least 1 month postoperatively.
Results: The mean operative time was 26 minutes. The mean stone size was 9mm. The stone-free rate (SFR) were determined as initial – on the first post operative day—and as overall on the 30 days after procedure. SFR were observed according stone diameter and stone localization. The greatest success was achieved in the distal localization of stones up to 10mm. Normal renal function returned in 49(83%) patients within 7 days. In 18.6% of UU we performed a second procedure/SWL -16.3% or open surgery-2.3%/. In 43 (73%) patients URS is successful therapeutic approach in dealing with: pain, obstruction and calculus.
Conclusion: Calculus anuria is a medical emergency that requires rapid diagnosis and prompt treatment for the purpose of decompression.URS is the proper method of choice for selected patients and can be performed safely and has high success rates with minimal morbidity