

## **Prospective Randomized Study to Compare Safety and Efficacy of Micro Percutaneous Nephrolithotomy (Micro Perc) in Comparison to Retrograde Intra Renal Surgery (RIRS)**

**Introduction and Objective:** Prospective analysis was done to study safety and efficacy of Microperc in relation to RIRS for 10-15 mm renal calculi by evaluating stone-free rates and associated complications.

**Materials and Methods:** Prospective chart review was done of 23 patients who underwent either Microperc (n=11) or RIRS (n=12) by standard techniques for 10-15 mm renal stones. Parameters studied were mean operative time, intraoperative and postoperative complications according to Clavien system. Microperc was done with 4.85-Fr (16 gauge) 'All-seeing needle' using a 200 um laser fiber. RIRS was done with Storz FLEX-X™2 Uretero-Reno-Fiberscopes.

**Results:** Mean operative time was comparable: 60+37.5 (45.6- 94.6 min) for microperc group and 57.5+28.6 (42.1-86.5 min) for RIRS groups. Intraoperative complications were stone migration in 2 cases in Microperc group and extravasation in 1 case of RIRS group. One patient in microperc group needed a double J stenting (Clavien II grade) for small residual stone postoperatively. Postoperative visual analogue score ( 4.1 vs 3.5), average hospital stay (49.45+ 12.6 vs 49.6 + 10.6 hrs) were comparable in both the groups. Stone-free rate was 100% in both groups.

**Conclusion:** Our interim analysis showed that the microperc is as safe and effective as RIRS for 10-15 mm renal stones.