

Symposium 5 “Percutaneous nephrolithotomy (PNL)”

S-05-3

Madhu S. Agrawal, Dilip K. Mishra
Global Rainbow Healthcare, Agra, India

MIP vs flexible Ureteroscopy: what is the evidence

Introduction: Percutaneous nephrolithotomy (PCNL) has been modified over the years for improving efficacy and reducing morbidity with mini-PCNL, ultra-mini PCNL, and micro-PCNL coming in practice. Retrograde Intrarenal Surgery (RIRS) has also evolved over the years with smaller diameter scopes with greater maneuverability. Still, debate persists regarding the exact place of each modality in current clinical practice. We collected evidence from the available literature throwing light on the subject.

Methods: A systematic literature review was performed on recent articles in Pubmed from January 2011 to June 2016 to identify relevant studies.

Results: Twelve relevant studies were found including two meta-analysis which fulfilled criteria of our search. Meta-Analysis by De S et al (2015) suggested *that standard PCNL is associated with higher stone-free rates at the expense of higher complication rates, blood loss, and admission times, while RIRS provides higher stone free rates than MIPPs.* Zheng C et al (2014) in a meta-analysis for PCNL vs RIRS concluded that *RIRS is a safe and effective procedure in selected patients with renal stones >2 cm.* Another study by Akman T et al (2012) showed that *Stone-free rates after one session were 73.5% and 91.2% for RIRS and PCNL respectively (P= 0.05). Mean operative time was less in PCNL group but mean hospital stay was less in RIRS group. Complications were more in PCNL group but difference was not significant.* Another recent meta-analysis by Zhang W et al (2015) comparing PCNL, RIRS and SWL suggested *PCNL is associated with the highest SFR at the expense of the longest hospital stay with comparable complications in all three modalities.* A recent study on pediatric patients by Baş O et al (2016) showed *that micro-perc and RIRS were highly effective methods for the treatment of moderately sized renal stones in children, with comparable success and complications.*

Conclusions: Both RIRS and PCNL are viable options with higher stone clearance rates in favor of PCNL, while shorter hospital stay and lower complications favoring RIRS.

COI:No