

## PP-009

### **Supine percutaneous nephrolithotomy (sPCNL): Upper pole access is possible without increased risk of complications**

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**Introduction and Objective:** Percutaneous Nephrolithotomy (PCNL) is conventionally performed in the prone position. We reviewed our experience of performing supine percutaneous nephrolithotomy (ssPCNL) in the management of large or complicated renal calculi.

**Method:** Data was prospectively collected on 102 consecutive cases of s-PCNL performed at our institution from June 2009 until June 2012. Patients with inaccessible stones underwent simultaneous retrograde stone manipulation with flexible ureterorenoscopy. Stone clearance was assessed with non-contrast CT (CT-KUB).

**Results:** The mean age and BMI were 54 y (range 22 – 85 y) and 29 (range 19 – 49), respectively. Calculi size ranged from 9-40 mm (mean 22 mm) which included staghorn, calyceal, diverticular, pelvis and upper ureteric calculi. Lower pole calyx was utilised as the most frequent form of access (46%), followed by interpolar (30%) and upper pole (24%). Second renal access was required in 4 patients and one had failed access. Simultaneous retrograde ureterorenoscopy was performed in 17 patients. Median operative time and hospital stay were 84 min (range 30 – 240 min) and 3 days (range 2 – 15 days), respectively. The mean screening time was 11.5 minutes and the mean radiation dose was 201 mGy. Postoperative complications were encountered in 8 patients (Clavian-Dindo grade 1 in 4; grade 2 in 1; grade 3 in 3). Interval CT KUBs confirmed complete stone free status in 81% of patients.

**Conclusion:** s-PCNL is safe and effective. Upper pole puncture in sPCNL is feasible with no increased risk of complications. It facilitates simultaneous flexible ureterorenoscopy and removes the need for a second percutaneous renal access for complex stones. We would advocate the extended lithotomy position in centers performing PCNL.

As published in the *Supplement of AFJU, Volume 18 (2012), 1<sup>st</sup> ESD "Experts in Stone Disease" Conference* (page 24)