

## SUPINE PERCUTANEOUS NEPHROLITHOTOMY UNDER SPINAL ANAESTHESIA: AN EFFECTIVE APPROACH

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### ABSTRACT

**Background:** PCNL is considered as minimal invasive procedure for the management of renal stones. Supine PCNL is getting popularity day by day and can be performed under spinal anaesthesia.

**Aim:** To demonstrate the safety and efficacy of supine PCNL performed under spinal anaesthesia.

**Method:** It is a retrospective study. From 1<sup>st</sup> January 2020 to 31<sup>st</sup> December 2023, 90 patients were included in the study. Outcome measures were operation duration, stone clearance, hospital stay and postoperative complication.

**Results:** Among these 90 patients, male patients were 55 (61.1%) and female patients were 35 (38.9%). The mean age of these patients was  $39.7 \pm 12.4$  years and size of stone was  $2.6 \pm 0.8$  cm. Single stone was present in 76 (84.44%) while 14 (15.55%) have multiple stones. Majority of stones, 68 (75.55%), were present in renal pelvis and calyces. The mean time for surgery was  $65 \pm 2.9$  minutes and stay in hospital was  $2.88 \pm 0.44$  days. Stone clearance rate was 87.77%. Fever was observed in 8 (8.88%), spinal headache in 8 (8.88%), hypotension in 6 (6.66%), nausea and vomiting in 5 (5.55%) patients. Significant haematuria was noted in 5 (5.55%) patients where blood transfusion was required.

**Conclusion:** Supine PCNL under spinal anaesthesia is equally safe and effective approach to manage renal stones which are larger than 2 cm in size and also it is cost effective.

**KEYWORDS:** Spinal Anaesthesia, Staghorn Calculus, Supine Position, Percutaneous Nephrolithotomy, Treatment Outcome

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