

Comparative Assessment of Efficacy of Thoracic Epidural with Low Spinal Block Vs. Spinal Anaesthesia in PCNL

Nandkishore Agrawal, Sujata Rawlani

Department of Anesthesiology, *Department of Pediatrics, JNMMC & Hospital DMIMS-DU Sawangi (M), Wardha

ABSTRACT

General anaesthesia, spinal anaesthesia, epidural anaesthesia and para vertebral block can be used as anaesthetic techniques for Percutaneous Nephrolithotomy (PCNL) procedure. Associated complications and cost are higher for general anaesthesia than for regional anaesthesia. High risk patients can be managed with minimal haemodynamic changes under regional anaesthesia. The study aimed to compare the efficacy of thoracic epidural with low spinal block versus spinal anaesthesia for percutaneous nephrolithotomy. Sixty healthy patients included in the study who were suffering from renal stone and belonging to ASA physical status grade I and II, aged between 20-60 years and allocated randomly into two groups of 30 each; Group E+S- Thoracic epidural with low spinal block and Group S- Spinal block. It was observed that Thoracic epidural with low spinal block is better technique than Spinal block alone for PCNL. As the Mean arterial pressure till 3 hours was significantly lower in spinal group as compared to epidural group with spinal group. After 160 minutes, differences were not significant. Number of attempts required for epidural catheter placement was higher. Mean time 15.45 ± 2.8 min was required to achieve the block in Thoracic Epidural Block with low spinal, while Mean time for Spinal group was 8.52 ± 2.62 minute. After 40 minutes difference in heart rate was statistically significant and higher in spinal group till the end of 3 hours. Postoperative VAS score was significantly higher in spinal group. Postoperative Nausea Vomiting (PONV) Score was significantly higher in spinal group. Present study shows that for Percutaneous Nephrolithotomy, Thoracic epidural with low spinal block is better than spinal anaesthesia in terms of haemodynamic stability, Postoperative analgesia, patient satisfaction, reduced incidence of PONV. Both types of regional anaesthesia are safe and effective.