

A Clinical Comparison between 0.5% Ropivacaine and 0.5% Ropivacaine with Dexamethasone 8mg Combination in Brachial Plexus Block by Supra Clavicular Approach

Saurabh Kulshreshtha, Ritu Gupta

Department of Anaesthesia, Rama Medical College, Hospital & Research Centre, Mandhana, Kanpur - 209217

ABSTRACT

Dexamethasone as an adjuvant to bupivacaine for supraclavicular brachial plexus (SCBP) block prolongs motor and sensory blockade. However, the effect of dexamethasone (8 mg) when added to Ropivacaine has not been well studied. This study was conducted to find out analgesic efficacy of dexamethasone as adjuvant to Ropivacaine in SCBP block. Ultrasound-guided SCBP block was given to eighty patients, randomly assigned into two groups. Group R (forty patients) received 2 mL normal saline with 30 mL Ropivacaine (0.5%) and Group D (forty patients) received 2 mL of dexamethasone (8 mg) with 30 mL of Ropivacaine (0.5%), respectively. Time for the first rescue analgesia, number of rescue analgesics required in 24 h and different block characteristics was assessed. Chi-square test and Student's t-test were used for statistical analysis. Time for request of the first rescue analgesia was 400.13 ± 109.42 min in Group R and 700.80 ± 121.46 min in Group D ($p < 0.001$). The requirement for rescue analgesics was more in Group R when compared to Group D. The onset of sensory and motor block was faster in Group D when compared to Group R. The mean duration of sensory and motor block was significantly longer in Group D than Group R. The addition of dexamethasone to Ropivacaine in SCBP blockade prolonged time for first rescue analgesia and reduced the requirement of rescue analgesics with faster onset and prolonged duration of sensory and motor block.