

## **To evaluate whether additional anesthetic and analgesic effect could be derived from administration of potassium chloride into brachial plexus sheath with bupivacaine**

Dr. Pramod Kumar Raikwar Dr. Purvi Jain Dr. Abhay Kumar Babar Dr. Deepak Joshi

### **Abstract**

The aim of this study is to evaluate whether additional anesthetic and analgesic effect could be derived from administration of potassium chloride into brachial plexus sheath with bupivacaine.

**Result:** Mean and Standard Deviation of the Duration of Analgesia in both the groups. Duration of Analgesia was calculated from the completion of administration local anesthetic to the time when patients had VAS score >5 (time of first rescue analgesia). It was longer in Group A(study) as compared to Group B(control), with p value 0.000 which was statistically highly significant.

The changes produced in SBP & DBP in group A (study) and group B (control) has been shown in figure. Thus DBP was stable in both groups and the difference between group A (study) and group B (control) was statistically not significant.

**Conclusion:** Addition of Potassium Chloride to bupivacaine solution for brachial plexus block can modify the action of local anesthetic solution beneficially. The dose 0.2mmol of Potassium chloride used in present study significantly shortens onset of sensory and motor block and gives longer duration of sensory and motor and better quality analgesia of longer duration than local anesthetic alone in supraclavicular block. There were no clinically significant side effects noticed. Hence Potassium chloride can form an useful adjuvant for bupivacaine when used for brachial plexus block.

### **Keywords:**

anesthetic potassium chloride brachial plexus sheath & bupivacaine