15% during head pinning, incision, and craniotomy without any complications or increased analgesic requirements intraoperatively.

Keywords: craniotomy, levobupivacaine, hemodynamic parameters

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A014 Comparison of 0.375% Levobupivacaine, 0.375% Bupivacaine, and 0.375% Ropivacaine in Terms of Analgesia and Hemodynamic Stability following Scalp Block in Patients Undergoing Awake Craniotomy: A Prospective Randomized Double Blind Study

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Introduction: The anesthetic challenges of awake craniotomy are to maintain adequate sedation, analgesia, and hemodynamic stability in an awake patient who should be able to cooperate during intraoperative neurological assessment. Conventionally, scalp block is performed with racemic bupivacaine with epinephrine. Studies on bupivacaine isomers have shown reduced cardiovascular toxicity of its levorotatory form (levobupivacaine). Ropivacaine, the S(−) enantiomer of bupivacaine analogue, is known to have lesser cardiotoxicity with similar pain relief at equivalent analgesic doses in comparison to bupivacaine. This study was undertaken to compare levobupivacaine, bupivacaine, and ropivacaine for analgesia and hemodynamic stability and complications following scalp block in awake craniotomy patients.

Methodology/Description: The study was conducted at the Department of Neuroanesthesiology, P D Hinduja Hospital and M.R.C, Mumbai, after obtaining approval from the Institutional Review Board. Sample size of 42 patients (14 + 14 + 14) was determined using "MedCalc" and patients were randomized into one of the three arms based on computer-generated random numbers. Analgesia and hemodynamic parameters were noted at various time intervals. Results were analyzed by the Kruskal–Wallis test.

Results: All three groups were comparable in terms of demographic characteristics. There was no statistically significant difference in the VAS scores and hemodynamics at Application of Mayfield head pin (p = 0.54), skin incision (p = 0.98), craniotomy (p = 0.299), raising of bone flap (p = 0.47), opening of dura (p = 0.50), replacing of bone flap (p = 0.14), and skin closure (p = 0.41) in all three groups.

Conclusion: Levobupivacaine and ropivacaine provided equally good analgesia, hemodynamic parameters and operating conditions as racemic bupivacaine and can be used routinely in our armamentarium of drugs for scalp block in awake craniotomy with better safety profiles.

Keywords: ropivacaine, levobupivacaine, awake craniotomy

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A015 Optic Nerve Sheath Diameter Measured by Ultrasonography: How Well Does It Correlate with Intracranial Pressure According to the New Brain Trauma Foundation Guidelines?

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Introduction: Bedside ultrasonography (USG), measurement of optic nerve sheath diameter (ONSD) has been proposed as a method to detect raised intracranial pressure (ICP) in various clinical settings. We aimed to evaluate the use of USG in the case of intracranial hypertension and find out the cutoff point that predicts ICP accurately at 22 mm Hg.

Methodology/Description: A retrospective analysis of the data collected from a prospective double-blind study performed by performing ocular ultrasounds in 52 adult patients with features of intracranial hypertension was done. The ONSD was measured by USG under anesthesia and compared with the intraventricular ICP measured simultaneously. The optimum cutoff of ONSD to predict ICP > 22 mm Hg was sought.

Results: There was a significant correlation of sonographic ONSD with ICP (r = 0.498, p = 0.000173). An ONSD threshold of 6.3 mm predicted ICP > 22 mm Hg with high sensitivity (89%) and specificity (73%, area under ROC curve = 0.814, p = 0.000424, CI = 0.672–0.956).

Conclusion: Our study confirms the utility of optic nerve ultrasound in the diagnostic evaluation of patients with known or suspected intracranial hypertension. We recommend an ONSD cutoff of 6.3 mm for predicting ICP > 22 mm Hg.

Keywords: ONSD, ICP, ultrasound

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