

Dexamethasone as a ropivacaine adjuvant for ultrasound-guided interscalene brachial plexus block: A randomized, double-blinded clinical trial

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Objective: The purpose of this study was to evaluate the effect of intravenous or perineural dexamethasone added to ropivacaine on the duration of ultrasound-guided interscalene brachial plexus blocks (BPB).

Methods: Randomized Clinical Trial. Setting, Patients and Interventions: Sixty ASA physical status I–II patients with elective shoulder arthroscopic surgeries under interscalene brachial plexus blocks were randomly allocated to receive 20 ml of 0.75% ropivacaine with 1 ml of isotonic saline (C group, n=20), 20 ml of 0.75% ropivacaine with 1 ml (4 mg) of perineural dexamethasone (Dpn group, n=20), or 20 ml of 0.75% ropivacaine with 1 ml of isotonic saline and intravenous 4 mg dexamethasone (IV) (Div group, n=20). A nerve stimulation technique with ultrasound was used in all patients.

Measurements: The onset time and duration of sensory blocks were assessed. Secondary outcomes were pain scores (VAS) and postoperative vomiting and nausea (PONV).

Results: The duration of the motor and sensory block was extended in group Dpn compared with group Div and group C ($P<0.05$). In addition, within 24 h, group Dpn presented lower levels of VAS and lower incidence of PONV as compared with the other groups. Moreover, there was a significant reduction on onset time between group Dpn and the other groups.

Conclusions: Perineural 4 mg dexamethasone was more effective than intravenous in extending the duration of ropivacaine in ultrasound-guided interscalene BPB. Moreover, Dpn has significant effects on onset time, PONV, and VAS.

Biography

Thiago Mamoru Sakae has completed his PhD from Federal University of Santa Catarina, South Brazil and Post-doctoral studies from University of Southern Santa Catarina – UNISUL, Brazil. He is the Anesthesiologist and Epidemiology Professor at UNISUL, an University in Southern Brazil. He has published more than 130 papers in reputed journals and has been serving as an Editorial Board Member of repute.

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