

Continuous Spinal Anaesthesia (CSA) With Ropivacaine In Patients Undergoing Orthopaedic Surgery: Preliminary Report

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Background: CSA is a valuable and safe technique; it includes the ability to titrate the anaesthetic and to continue anaesthesia¹. At the moment bupivacaine appears the safest and most practical local anaesthetic for CSA. The aim of our study was to evaluate the administration and the ideal dose of Ropivacaine (R) during CSA for orthopaedic surgery, with regard to the onset, duration and quality of the motor and sensory block, safety².

Method: After local ethical committee approval and informed consent, 32 patients, ASA 2 and 3, aged 48-82 years, weight 59-88 kg, scheduled for major orthopaedic surgery entered the study. The 28 G microcatheter insertions were made at the L2-L3 level; 4 mg isobaric 0.2% ropivacaine (Naropina®; AstraZeneca) + fentanyl 25 mcg were injected as the initial dose and 2 mg increments of ropivacaine were used in order to achieve a T10 sensory block level. At the first 5 minutes and later every 3 minutes the level and the entity of motor and sensory blockade were evaluated. Complications and/or side effects were also observed. Patients were assessed for vital parameters.

Results: The total amount of ropivacaine used was 10+1 mg; the onset of analgesia to T10 was 16+2 min; sensory and motor block were adequate in each patient; duration of complete sensory block was 105+15 min. Hypotension occurred in 4 patients. No unexpected side effects (nausea, vomiting, urinary retention, and respiratory depression, PDPH) were observed and neurological exams (performed the day after surgery) remained normal.

Conclusions: These preliminary results suggest that 0.2% ropivacaine at the dosage used is a safe local anaesthetic for use with CSA in orthopaedic surgery: it showed good anaesthetic properties and neurotoxic effects were not observed.

References:

- 1) Br J Anaesth 1998; 81: 590-597.
- 2) Anesth Analg 1994; 78: 1125-1130.