Safety and Efficacy of Dexmedetomidine in Treating Post Spinal-Anesthesia Shivering: A Randomized Clinically Controlled Dose Finding Trial

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Abstract:

The optimum dose of dexmedetomidine for shivering control with the least hemodynamic derangements is still under research. Objective: To compare the efficacy, hemodynamic and side effects of dexmedetomidine in 3 different doses with those of meperidine for the treatment of shivering in patients undergoing spinal anesthesia for minor elective lower abdominal surgery. Study Design: Prospective double-blind randomized clinically controlled study. Setting: University hospital. Methods: One hundred twenty patients who developed shivering under spinal anesthesia. On shivering, patients were randomly allocated to receive an intravenous 2 mL bolus dose of meperidine 0.4 mg/kg (meperidine group, n = 30), dexmedetomidine 0.5 μg/kg (DEX I group, n = 30), 0.3 μg/kg (DEX II group, n = 30), or 0.2μg/kg (DEX III group, n = 30). Control of shivering, time taken for cessation of shivering, response rate, recurrence, hemodynamic changes, sedation score, tympanic temperature, and side effects were noted and compared between groups. Results: The groups were comparable regarding demographic profile, tympanic temperature decline, and shivering onset time (P > 0.05). Lower shivering cessation time (P

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