Abstract

Neuropathic pain is defined as that which is caused by either a primary injury or dysfunction in the nervous system. Methods: We conducted a prospective, non-randomized, parallel group, comparative clinical trial, where adult patients (n=40) with a clinical diagnosis of neuropathic pain were screened and selected for admission in the trial. Patients were divided into two groups: Group A patients, n=20, were administered lidocaine 1%, 70 mg and levobupivacaine 5 mg, both locally; Group B patients, n= 20, were locally administered lidocaine 1%, 70 mg, levobupivacaine 5 mg, and dexmedetomidine at 3 μg/kg/dose. Sympathetic and peripheral blocks were made to each patient, according to the specific clinical picture and neuropathic pain localization. Pre-block-assessed parameters were again determined 1 and 5 minutes after finalizing the anesthetic procedure. Adverse events, either spontaneously reported or obtained through open questions, were also determined. Results: Tolerability assessment resulted in 42.5% of overall patients not reporting treatment-related adverse events, and again when comparing both groups, those receiving dexmedetomidine reported adverse events less frequently (50%) than Group A patients (35%). Conclusions: We conclude that, besides its sedative properties, dexmedetomidine together with local anesthetics showed excellent analgesia-enhancing effects, with the additional benefit of a favorable side-effect profile, lacking respiratory-depressant actions and improving overall patient management. In addition, patients receiving dexmedetomidine showed changes in heart rate and blood pressure that were both predictable and stable during and after the anesthetic procedures, while the patient achieved anxiolysis, improving his tolerance to the procedure itself.

Keywords

Neuropathic pain, Nerve block, Dexmedetomidine, Levobupivacaine