

Analgesic effect of dextromethorphan in neuropathic pain.

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Author information

Abstract

BACKGROUND: Dextromethorphan, a clinically available N-methyl-D-aspartic acid (NMDA) receptor antagonist, has an analgesic effect in patients with diabetic neuropathy. The aim of this study was to evaluate the analgesic and adverse effects of a single high dose of dextromethorphan on spontaneous pain in patients suffering long-term neuropathic pain of traumatic origin.

METHODS: Fifteen patients with post-traumatic neuropathic pain participated in this placebo-controlled, double-blind, randomized crossover study. On two separate occasions, the participants received 270 mg of dextromethorphan hydrobromide or placebo. Pain intensity, adverse effects and serum concentrations of dextromethorphan and metabolites were registered.

RESULTS: Dextromethorphan had a statistically significant analgesic effect compared with placebo, but the effect varied markedly among the patients. Light-headedness was the most important adverse effect reported. Extensive metabolizers of dextromethorphan had an apparently better analgesic effect than poor metabolizers.

CONCLUSION: This report indicates that a single high dose of dextromethorphan has an analgesic effect in patients with neuropathic pain of traumatic origin. The main metabolite dextrorphan seems to be important for the analgesic effect. At the relatively high dose studied, the clinical usefulness of dextromethorphan is limited to that portion of the patient population experiencing analgesia without an unacceptable level of adverse effects.

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