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Intravenous immunoglobulin for multifocal motor neuropathy.

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Abstract

BACKGROUND: Multifocal motor neuropathy is a rare, probably immune mediated disorder characterised by slowly progressive, asymmetric, distal weakness of one or more limbs with no objective loss of sensation. It may cause prolonged periods of disability. The treatment options for multifocal motor neuropathy are sparse. Patients with multifocal motor neuropathy do not usually respond to steroids or plasma exchange, and may even worsen with these treatments. Many uncontrolled studies have suggested a beneficial effect of intravenous immunoglobulin.

OBJECTIVES: To review systematically the evidence from randomised controlled trials concerning the efficacy and safety of intravenous immunoglobulin in multifocal motor neuropathy.

SEARCH STRATEGY: We used the search strategy of the Cochrane Neuromuscular Disease Review Group to search the Disease Group register (searched September 2003), MEDLINE (January 1990 to September 2003), EMBASE (January 1990 to September 2003) and ISI (January 1990 to September 2003) databases for randomised controlled trials.

SELECTION CRITERIA: Randomised controlled studies examining the effects of any dose of intravenous immunoglobulin versus placebo in patients with definite or probable multifocal motor neuropathy. Outcome measures had to include one of the following: disability, strength, or conduction block. Studies which reported the frequency of adverse effects were used to assess safety.

DATA COLLECTION AND ANALYSIS: Two authors reviewed literature searches to identify potentially relevant trials, scored their quality and extracted data independently. For dichotomous data, we calculated relative risks, and for continuous data, effect sizes and weighted pooled effect sizes. Statistical uncertainty was expressed with 95% confidence intervals.

MAIN RESULTS: Four randomised controlled trials including a total of 34 patients were suitable for this systematic review. Strength improved in 78% of patients treated with intravenous immunoglobulin and only 4% of placebo-treated patients. Disability improved in 39% of patients after intravenous immunoglobulin treatment and in 11% after placebo (statistically not significantly different). Mild, transient side effects were reported in 71% of intravenous immunoglobulin treated patients. Serious side effects were not encountered.

AUTHORS' CONCLUSIONS: Limited evidence from randomised controlled trials shows that intravenous immunoglobulin has a beneficial effect on strength. There was a non-significant trend towards improvement in disability. More research is needed to discover whether intravenous immunoglobulin improves disability and is cost-effective.

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