Format: Abstract

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Plasma-exchange therapy in chronic inflammatory demyelinating polyneuropathy. A double-blind, sham-controlled, cross-over study.

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Abstract

Eighteen patients with definite, untreated chronic inflammatory demyelinating polyradiculoneuropathy (CIDP) of chronic progressive (nine patients) or relapsing course (nine patients) were randomized prospectively to receive 10 plasma-exchange (PE) or sham plasma-exchange (SPE) treatments over 4 weeks in a double-blind trial. After a wash-out period of 5 weeks or when they returned to baseline scores, patients were crossed over to the alternate treatments. Neurological function was assessed serially using a quantitative neurological disability score (NDS), a functional clinical grade (CG) and grip strength (GS) measurements. Electrophysiological studies were done at the beginning and end of each treatment. A primary 'intention to treat' analysis showed significant improvement with PE in all clinical outcome measures: NDS by 38 points, $P < 0.001$; CG by 1.6 points, $P < 0.001$; GS by +13 kg, $P < 0.003$ and in selected electrophysiological measurements, sigma proximal CMAP, $P < 0.01$; sigma motor conduction velocities, $P < 0.006$; sigma distal motor latencies, $P < 0.01$. Fifteen patients completed the trial and of those, 12 patients (80%) improved substantially with PE; i.e. five out of seven patients with chronic progressive course and seven out of eight patients with relapsing CIDP improved. There were three drop-outs; one patient lost venous access; one patient suffered a stroke and one patient left the trial to receive open treatment elsewhere. The improvement in motor functions correlated with the electrophysiological data, i.e. with improved motor conduction velocities and reversal of conduction block. Eight of 12 PE responders (66%) relapsed within 7-14 days after stopping PE. All improved with subsequent open label PE; all but two patients required long-term immunosuppressive drug therapy for stabilization. The PE non-responders improved with prednisone. We conclude that PE is a very effective adjuvant therapy for CIDP of both chronic progressive and relapsing course; concurrent immunosuppressive drug treatment is required. Exchange treatments should be given two

to three times per week until improvement is established; the treatment frequency should then be tapered over several months.

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