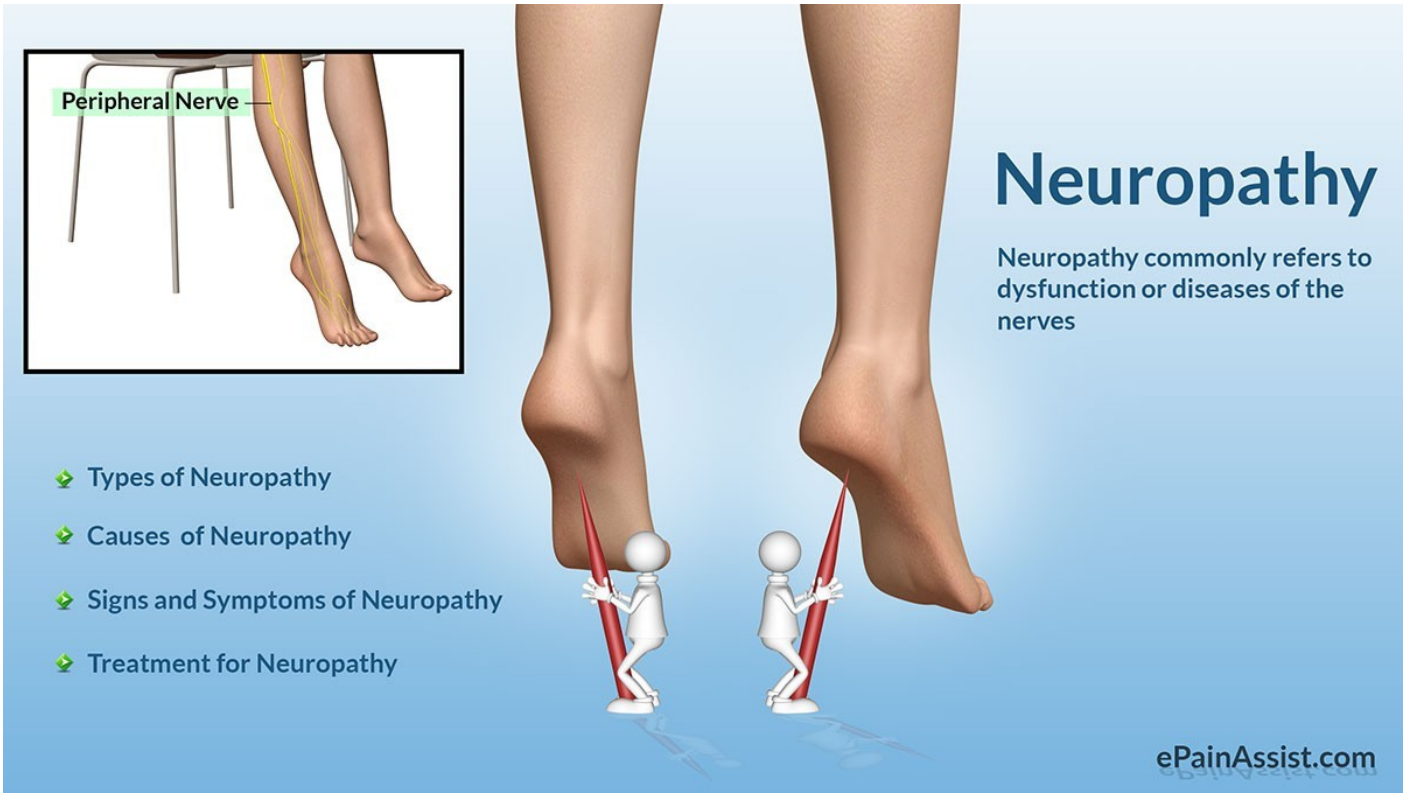
Medical PEMF Studies

NEUROPATHY

Evaluation of the efficacy of pulsed electromagnetic field in the management of patients with diabetic polyneuropathy.



1. Int J Diabetes Dev Ctries. 2009 Apr;29(2):56-61. doi: 10.4103/0973-3930.53121.

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AIM: The study was carried out to evaluate and compare the effect of low power, low frequency pulsed electromagnetic field (PEMF) of 600 and 800 Hz, respectively, in management of patients with diabetic polyneuropathy.

SETTINGS AND DESIGNS: The study was a randomized controlled trial performed in

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Guru Nanak Dev University and Medical College, Amritsar, India with different subject experimental design.

MATERIALS AND METHODS: Thirty subjects within an age group of 40-68 years with diabetic polyneuropathy stages N1a, N1b, N2a were randomly allocated to groups 1, 2, 3 with 10 subjects in each. Group 1 and 2 were treated with low power 600 and 800-Hz PEMF for 30 min for 12 consecutive days. Group 3 served as control on usual medical treatment of diabetic polyneuropathy (DPN). The subjects with neuropathy due to any cause other than diabetes were excluded. The pain and motor nerve conduction parameters (distal latency, amplitude, nerve conduction velocity) were assessed before and after treatment.

STATISTICAL ANALYSIS: Related t-test and unrelated t-test were used for data analysis.
RESULTS: Significant reduction in pain and statistically significant ($P<0.05$) improvement in distal latency and nerve conduction velocity were seen in experimental group 1 and 2.

CONCLUSIONS: Low-frequency PEMF can be used as an adjunct in reducing neuropathic pain as well as for retarding the progression of neuropathy in a short span of time.

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