

Medical PEMF Studies



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NERVE REPAIR

A comparative study of the effects of magnetic stimulation and electric stimulation on peripheral nerve injury in rat.

1. J Tongji Med Univ. 2001;21(2):159-62.

Bannaga A(1), Guo T, Ouyang X, Hu D, Lin C, Cao F, Dun Y, Guo Z.

Author information:

(1)Department of Orthopedic Surgery, Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan 430030.

The influence of pulsed magnetic stimulation (MS) on the sciatic nerve injury was investigated. Thirty rats were divided into three groups equally: MS group (A), electric stimulation (ES) group (B) and the control group (C). The MS and ES were applied immediately after the first 10 min of the sciatic nerve crush. Sciatic function index (SFI), toe spreading reflex (TSR), muscular weight and volume were measured after the experiment. The TSR of in the groups A and B occurred at 4th day while in the control group it occurs at 10th day. There was statistically significant difference in SFI between groups A and B ($P < 0.01$). The weight and volume of the gastrocnemius muscle were statistically greater in the groups A and B than in the control group ($P < 0.01$). The effect of MS was similar to that of ES. It was suggested that the application of MS immediately after the nerve injury might have an important clinical value as it can accelerate functional recovery and prevent or minimize muscle atrophy. The technique is easily to operate, non-invasion, painless and permits tolerance of high intensity output to be used.

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