

THE ROLE OF PERIFERIC MAGNETIC STIMULATION IN RECOVERY OF UPPER LIMB SPASTICITY IN POST-STROKE PATIENTS

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Abstract

Introduction: High degree of spasticity causes an important impairment in the function of the individual member, as well as a major impediment to stroke recovery. Over the years, various therapies have been tried to help reduce spasticity after stroke. In this paper, our goal is to evaluate the efficacy of repetitive, peripheral magnetic stimulation (pRMS) on the spasticity of the upper limb in stroke patients.

Material and methods: We observed a group of 90 recent stroke patients (up to 3 months) that we followed during the admission (2 weeks) and 3 months and were divided into two equal lots: the study group - 45 patients and control group - 45 patients. All patients were between 50 and 70 years of age. They all followed specific and appropriate drug treatment. Patients in the study group next to drug therapy followed 30 minutes of physical therapy treatment and pRMS. Patients in the control group followed medical treatment and physical treatment (galvanization, laser, interferential currents) and kinetotherapy. The assessment was made initially at admission, 2 weeks later (at discharge) and 3 months after rehabilitation treatment, following the degree of spasticity according to the modified Ashworth scale and indirectly using the ADL scale.

Results: The control group presented a minimal reduction of spasticity by 15% and the studio group managed to significantly improve their status starting from a spasticity with a score on the modified Ashwoth scale of 3.8 and reaching 2.8. The score on the ADL scale showed significant improvements in the studio group, the control group had a steady evolution in the first month, only the last assessment showed an improvement of 20% on average, compared to 35% as the study group .

Conclusions: PRMS therapy demonstrates its utility in combating spasticity in the upper limb in post-stroke patients. Combining pRMS with specific kinetic programs also improves the functional status proven on ADL specific scales.