Walking rehabilitation in patients with recent ischemic stroke comparative study between in peripheral repetitive magnetic stimulation and classical neuromuscular stimulation

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Summary:
Peripheral repetitive magnetic stimulation (SMr) is a technique which involve two types of muscular stimulations: isotonic and isometric. The classic stimulation by exponential currents induce only isotonic muscular contraction.

Method:
The actual study evaluated by comparison two equal groups of patients, 32 patients per group, all of them with ischemic stroke not more than ten month later, who received a similar rehabilitation program based on kinetic-therapy, appropriate medication, the difference was the type of muscle stimulation placed at the same muscle for both groups of patients. The Group A received SMr on tibialis anterioris, and Group B rectangular current on the same muscle. The evaluation has mad at the first moment T1, and moment T2 six months later, after two period of rehabilitation therapy, each one of 15 days. The evaluation scale was: the test 6MWD (6 meter walking distance), Tinetti scale for walking and measures the polygon areas of stability in standing.

Results:
For Group A the test 6MWD increased with a percent of 38,5% at moment T2, and the polygon area of stability has reduced with 18,2%. For group B the result of 6MWD has increased with 18,3%, and polygon area of stability has reduced with 5,6%.

Conclusions:
SMr sustainably applied on key muscle groups has demonstrated and important role in early rehabilitation in neuromuscular disability.