P02-549

REPETITIVE TRANSCRANIAL MAGNETIC STIMULATION (RTMS) IN THE TREATMENT OF MEDICATION-RESISTANT NEUROPATIC PAIN

M. Klírová[1], J. Fricová[2], P. Šóš[1], T. Novák[1], B. Kohútová[1], V. Masopust[3], M. Haeckel[3], R. Rokyta[4]

[1]Prague Psychiatric Center and 3rd Faculty of Medicine, Charles University of Prague, [2]1st Medical Faculty of Charles University Prague, [3]Central Military Hospital Prague, [4]3rd Medical Faculty of Charles University Prague, Department of Normal Pathological and Clinical Physiology, Prague, Czech Republic

Introduction: Transcranial magnetic stimulation (TMS) is a non-invasive method that induces functional changes in a relatively small area of the cerebral cortex.It is supposed that the effect of the method in therapy of neuropatic pain is based on the induction of spinothalamic tract inhibiton, which leads to the symptom withdrawal.

Aim: To prove the clinical and electrophysiological effect of rTMS in the therapy of chronic neuropatic pain.

Methods: 29 patients with medication-resistant neuropatic pain were examined by Visual analog scale (VAS), McGill Pain Questionnaire (MPQ) and QST(Quantitative sensory Testing, consisted of von Frey and thermic treshold examination),then treated by high frequency rTMS in the study using double-blind randomized sham-controlled parallel design. rTMS parameters: 5 rTMS sessions (2 weeks treatment), where each session consisted of three 10 Hz rTMS series using:

1) 85%MT (motor treshold),
2) 90%MT and
3) 95%MT.

Each rTMS serie consisted of 20 pulses in 12 trains. Location of the active coil was administered over the contralateral motor cortex, directed specifically to facial area of homunculus (according to funcional location). Sham coil was angled 90^0 degrees away from the skull.

Results: Confirmation of a significant decrease of VAS item in active group,trend to improvement in tactile sensation of severed patient faces. The changes of thermic treshold were not found.Sham rTMS did not show any trend for improvement.

Conclusion: Although no general recommendations can be drawn based on our result,our study is another one that suggest rTMS should be considered as an effective and safe treatment option for chronic neuropatic pain.

https://doi.org/10.1016/S0924-9338(11)72850-4 Published online by Cambridge University Press