



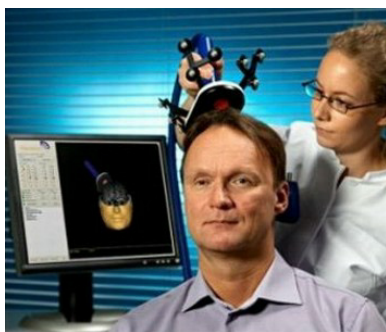
PARKINSON'S DISEASE NEWS

<http://www.viartis.net/parkinsons.disease/news.htm>

19th February 2015 - New research

THE EFFECTS OF TRANSCRANIAL MAGNETIC STIMULATION ON PARKINSON'S DISEASE

Repetitive transcranial magnetic stimulation (rTMS) is a non-invasive technique that relies on electromagnetic induction using an insulated coil placed over the scalp. The coil generates brief magnetic pulses, which pass easily and painlessly through the skull into the brain. When pulses are administered in rapid succession, it is referred to as "repetitive TMS" or "rTMS", which can produce longer lasting changes in brain activity. For more information go to : http://www.hopkinsmedicine.org/psychiatry/specialty_areas/brain_stimulation/tms/ However, results evaluating the effectiveness of rTMS in Parkinson's Disease are mixed. So an assessment was made of all studies concerning the use of rTMS in Parkinson's Disease.



Twenty studies with a total of 470 patients were included in the assessment of the efficacy of rTMS. The overall average effect of rTMS showed a significant reduction in motor symptoms. Analysis showed that the size of the effects estimated from high-frequency rTMS targeting the primary motor cortex and low-frequency rTMS applied over other frontal regions were significant. A greater number of pulses per session or across sessions was associated with larger rTMS effects. rTMS has been shown to be well tolerated.

The pooled evidence therefore suggests that rTMS improves motor symptoms of people with Parkinson's Disease. Combinations of rTMS site and frequency as well as the number of rTMS pulses are key modulators of rTMS effects.

Reference : JAMA Neurology [2015] Feb 16 [Epub ahead of print] (Y.H.Chou, P.T.Hickey, M.Sundman, A.W.Song, N.K.Chen)

Complete abstract : <http://www.ncbi.nlm.nih.gov/pubmed/25686212>

<http://www.viartis.net/parkinsons.disease/news/150219.pdf>

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