

Poster presentation

Repetitive Transcranial Magnetic Stimulation (rTMS) for the treatment of depression in schizophrenia patients

Nikita Maslenikov*, Eduard Tsukarzi and Sergey Mosolov

Address: Department for treatment of mental disorders, Moscow Research Institute of Psychiatry, Moscow, Russia

* Corresponding author

from International Society on Brain and Behaviour: 3rd International Congress on Brain and Behaviour
Thessaloniki, Greece. 28 November – 2 December 2007

Published: 17 April 2008

Annals of General Psychiatry 2008, **7**(Suppl 1):S312 doi:10.1186/1744-859X-7-S1-S312

This abstract is available from: <http://www.annals-general-psychiatry.com/content/7/S1/S312>

© 2008 Maslenikov et al.; licensee BioMed Central Ltd.

Background

TMS is a safe stimulation technique of the brain with anti-depressive activity, but there are limited data in clinical psychiatry on application of rTMS in schizophrenia. Depression is an important co-occurring syndrome in schizophrenia and is associated with increased morbidity and mortality. The aim of our study was to estimate the effect of rTMS for depression in schizophrenia.

Materials and methods

32 patients with schizophrenia (ICD-10) without exacerbation of psychotic symptoms and with marked depression (CDSS score >6). All patients were on stable medication for at least 4 weeks before and throughout the rTMS treatment. 15 Hz rTMS at 100% of MT was administered over the left dorsolateral prefrontal cortex. The Neuro-MS stimulator (Ivanovo, Russia) with figure-eight coil was used for 5-20 sessions within a three-week period. Each session consisted of 20 6-second trains with 1 minute intervals (1800 stimuli per session). Patients were assessed weekly by CDSS, HAMD, CGI, PANSS and battery of cognitive tests.

Results

The number of responders (50% reduction of CDSS score) at the end of rTMS treatment were 20 (62,5%). The clinical effect of rTMS appeared at the end of the first week. Negative symptoms of PANSS also were decreased during rTMS treatment (29,8% reduction after 3 weeks) without significant changes in positive symptoms. Cognitive tests showed improvement in executive functions and atten-

tion switching but there weren't any significant changes in verbal and visual memory.

Conclusions

Our preliminary data confirm that rTMS is effective in the treatment of depression in patients with schizophrenia.

References

1. Rollnik J.D, et al.: **High frequency repetitive transcranial magnetic stimulation (rTMS) of the dorsolateral prefrontal cortex in schizophrenic patients.** *Neuroreport* 2000, **11**(18):4013-4015.
2. Simons W, Dierick M: **Transcranial magnetic stimulation as a therapeutic tool in psychiatry.** *The World Journal of Biological Psychiatry* 2005, **6**(1):6-25.