Repetitive transcranial magnetic stimulation in the treatment of obsessive-compulsive disorders: Double blind randomized clinical trial

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Abstract:

Repetitive transcranial magnetic stimulation (rTMS) has become widely used as a therapeutic tool in psychiatric research. The aim of this study was to evaluate the impact of different frequencies of rTMS over right dorsolateral prefrontal cortex (DLPFC) in OCD. Forty five patients with OCD participated in the study. Patients were evaluated using: Yale-Brown obsessive compulsive scale (Y-BOCS), Hamilton Anxiety Rating Scale (HAM-A), and Clinical Global Impression-Severity scale (CGI-S). They were randomly classified into three groups: 1st group received 1 Hz rTMS; 2nd group received 10 Hz rTMS; and 3rd group received sham stimulation all at 100% of the resting motor threshold for 10 sessions. They were followed up after the last treatment session and 3 months later. There was a significant interaction for 1 Hz versus Sham but not for 10 Hz versus Sham. 1 Hz versus 10 Hz groups showed a significant interaction for Y-BOCS and HAM-A (P=0.001 and 0.0001 respectively). 1 Hz rTMS has a greater clinical benefit than 10 Hz or Sham. There was also a significantly larger percentage change in CGI-S in the 1 Hz group versus either 10 Hz or sham. We conclude that 1 Hz rTMS, targeting right DLPFC is a promising tool for treatment of OCD.

Keywords:

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