

INTERMITTENT THETA BURST STIMULATION (iTBS) FOR THE TREATMENT OF NEGATIVE SYMPTOMS IN SCHIZOPHRENIA

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Introduction: High frequency repetitive transcranial magnetic stimulation (rTMS) of the left dorsolateral prefrontal cortex (DLPFC) has been shown effective for reducing persistent negative symptoms of schizophrenia. Intermittent theta burst stimulation (iTBS) is a new paradigm of rTMS that allowed more sustained facilitation effect.

Aims: The aim of this study is to investigate the effect of theta burst in reduction of persistent negative symptoms in schizophrenia.

Methods: 24 adult schizophrenia outpatients were assigned to receive iTBS at 80% motor threshold, or sham TMS over the left DLPFC, daily; for 20 sessions. The primary outcome measure was the Scale for the Assessment of Negative Symptoms (SANS).score. Secondary outcomes included depression as measured with the Calgary Depression Scale (CDS), and cognition as assessed with digit span and trail making test. Patients were followed-up 6 months afterwards.

Results: The primary outcome measure (change in Scale for Assessment of Negative Symptoms score) showed a statistically significant drop at month 1, 3 and 6 for the iTBS group, but not the placebo groups. Digit span and trail making test score were also significantly improved after treatment in iTBS group. Calgary depression scale score did not demonstrate any significant change.

Conclusions: iTBS may serve as a relatively noninvasive treatment of the negative and neurocognitive deficits associated with schizophrenia.

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