

Efficacy and Safety of Transcranial Magnetic Stimulation in Psychiatric, Neurological and Addiction Disorders: Single Center Experience form Pakistan

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Abstract

Objective / Background: Resistant mental health disorders like depression, anxiety and OCD have been on a rise and pose difficulty to patient as well as treating team. Newer modalities are introduced at a less pace in developing countries. We designed this study with an objective to look for efficacy and safety of transcranial magnetic stimulation in psychiatric, and neurological disorders in Pakistani population

Methodology: This study was conducted at Pakistan Institute of Mental health from April 2024 till date. Patients of stroke and multiple psychiatric disorders who met criteria and were willing for use of transcranial magnetic stimulation were included in the study. They were evaluated for response and remission after two and four weeks of treatment and also for any adverse events during the course of treatment. Repetitive transcranial magnetic stimulation was provided as per protocols either FDA approved or suggested in recent guidelines.

Results: A total of 200 patients have been studied so far. At the end of two weeks, 50% of depression patients had good response while 50% had remission, 40% of anxiety patients had good response while 40% had remission. 100% of addiction patients were successfully out of withdrawal phase in two weeks. 50% of autism patients had speech and behavioral improvement at end of two weeks. At end of four weeks, 80% of depression patients had remission or good response while 10% did not improve, 70% of anxiety patients had remission or good response while 30% did not improve. 100% addiction patients were in remission at end of four weeks. 70% of autism patients had marked behavioral or speech improvement while 30% did not show marked improvement.

Conclusion: Transcranial magnetic stimulation emerged as safe and effective treatment strategy for multiple mental health, neurological and addiction disorders especially those in which routine treatment was not effective.

Keywords

Addiction, Anxiety, Autism, Depression, OCD, Transcranial magnetic stimulation.