The Second International Anxiety Congress
Shefa Neuroscience Research Center, Tehran, Iran, 1-3 October, 2014
The Neuroscience Journal of Shefaye Khatam
Volume 2, No.3, Suppl 1

Poster Presentation Research

Long-Lasting Effects of Repetitive Transcranial Magnetic Stimulation on Anxiety-Like Behaviors in Schizophrenic Developmental Model

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Published: ***1 Oct 2014***

Abstract

Transcranial magnetic stimulation (TMS) has been applied to a growing number of psychiatric disorders as a neurophysiological probe, a primary brain-mapping tool and a candidate treatment. Although most investigations have focused on the treatment of major depression, increasing attention has been paid to anxiety disorders. The aim of this study is to long time (for 30 days) effect of repetitive TMS on anxiety-like behaviors in post-weaning social isolated (SI) Wistar rats. Four groups of Wistar rats were reared post weaning in social or isolated conditions for 10weeks. After last week, the effects of cortical induction of repetitive TMS (2Hz), on percentage open arm time (%OAT) and percentage open arm entries (%OAE) were determined. The result investigated the effects of rTMS in Wistar rats using the elevated plus-maze test. The induction of 30 days TMS on the cortex region produced significant anxiogenic-like responses in SI rats, whereas induction of SI for 10 week induced anxiolytic effects. These data imply that repetitive TMS may have anxiogenic-like effects in the cortex region in which SI condition.

Keywords: Repetitive Transcranial Magnetic Stimulation, Anxiety, Schizophrenia.

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