

TRANSCRANIAL DIRECT CURRENT STIMULATION DURING SLEEP IN PATIENTS WITH SCHIZOPHRENIA

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Schizophrenia is a devastating mental disorder with diverse dimensions of symptoms like delusions, hallucinations, affective symptoms and alterations in cognition. Declarative memory deficits are among the most important factors leading to poor functional outcomes in this disorder. Recently it was supposed, that sleep disturbances in patients with schizophrenia might contribute to these memory impairments (Manoach et al. 2009, Ferrarelli et al. 2010, Lu and Göder 2012). In young healthy subjects it was shown that declarative memory consolidation was enhanced by inducing slow oscillation-like potential fields during sleep (Marshall et al. 2006). In the present study transcranial direct current stimulation (tDCS) was applied to 14 patients with schizophrenia on stable medication with a mean age of 33 years. The main effects of tDCS in comparison to sham stimulation were: An enhancement in declarative memory retention and an increase in mood after sleep. In conclusion, so-tDCS offers an interesting approach for studying the relationship of sleep and memory in psychiatric disorders and could possibly improve disturbed memory processing in patients with schizophrenia.