

# THE INFLUENCE OF REPETITIVE TRANSCRANIAL MAGNETIC STIMULATION ON SLEEP IN PARKINSON'S DISEASE

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## **Abstract**

Sleep disturbance is common in Parkinson's disease (PD). In this study we investigated the effect of a novel therapeutic tool, repetitive transcranial magnetic stimulation (rTMS) on sleep quality in PD patients. The study group consisted of 11 PD patients who underwent ten daily rTMS sessions at 15 Hz. Their sleep patterns were monitored with polysomnography. After the stimulation, non-REM stage-1 sleep and the number of nocturnal arousals decreased, thus improving sleep quality. These changes were probably related to the improvement of motor symptoms observed in UPDRS and in the 9 Hole peg test.

**Keywords:** Parkinson's Disease, repetitive transcranial magnetic stimulation, sleep, polysomnography, motor symptoms