

TRANSCRANIAL MAGNETIC STIMULATION TREATMENT PRACTICES IN A UNIVERSITY HOSPITAL

Hakan Emre Babacan, Ömer faruk uygur, Oğuz Erçelik, Halil Ozcan

Department of Psychiatry, Atatürk University Faculty of Medicine, Erzurum, Türkiye

BACKGROUND AND AIM: Transcranial magnetic stimulation (TMS) is a non-invasive, well-tolerated treatment modality that does not require anesthesia and has no serious side effects. TMU has been indicated in depression and obsessive-compulsive disorder, but its use in schizophrenia, post-traumatic stress disorder and substance use disorder is under investigation. In this study, we aimed to present one-year TMU treatment experiences in a university hospital.

METHODS: The files of patients who received TMU treatment in our TMU unit in the last one year were reviewed. Descriptive analyses of sociodemographic, clinical and TMU protocol information were performed. Our study was approved by Atatürk University Faculty of Medicine Ethics Committee (07.06.2024/100).

RESULTS: 175 TMU application files were accessed, but 9 of these files were excluded from the study because they were re-application to the same patient, and a total of 166 patient files were included in the study. The mean age of the patients was 39.50 ± 14.42 years (min-max: 18-83), 62.7% were female (s=104) and 37.3% were male (s=62). The most common diagnoses of patients who underwent TMU were unipolar depression

(s=88, 53%), obsessive-compulsive disorder (s=36, 21.7%), and bipolar depression (s=15, 9%), respectively. In 31.3% (s=52) of patients who underwent TMU, TMU was administered during hospitalization. The most common TMU protocol was intermittent theta burst to the left dorsolateral prefrontal cortex (DLPFC) with continuous theta burst to the right DLPFC (s=48, 28.9%) and TMU was most commonly applied to the left and right DLPFC regions (s=81, 48.8%). Accelerated TMU treatment of more than one session per day was applied to 42.8% of patients (s=71). During TMU treatment, 67.8% (s=61) of the patients who were followed up with clinical scales responded to the treatment. 44 patients (26.5%) discontinued TMU treatment and the most common side effect during TMU treatment was headache (s=19, 11.4%).

CONCLUSIONS: In our clinic, short-term sessions and TMU treatment to DLPFC were preferred in order to reach more patients. Considering that TMU is applied to resistant patients, it is another important result that the response rate to treatment was quite high in our study.

Keywords: Theta burst stimulation, accelerated transcranial magnetic stimulation, DLPFC