

Evaluation of changes in the severity, quality and number of headache attacks in patients with migraine headache treated with transcranial surface stimulation (TDCS)

Abstract

Background: Migraine, as one of the most common types of headaches with high prevalence, has significant effects on the living conditions of affected people. Headaches are caused by stretching, displacement, inflammation, spasm of blood vessels, and expansion of pain-sensitive structures in the head or neck. People with migraines experience a lot of pain, therefore the present study was conducted with the aim of investigating the changes in intensity, quality and number of headache attacks in patients with migraine headaches treated with Transcranial Surface Stimulation (TDCS) in Ardabil city.

Aim: To determine the trend of changes in intensity, quality and number of headache attacks in patients with migraine headaches treated with transcranial surface stimulation (TDCS).

Materials and methods: In this study, we examined the data of the previously conducted research project in an observational and retrospective manner. We used McGill pain questionnaires to evaluate patients. 30 patients responded to McGill pain questionnaires. Two groups of patients with migraine headaches answered the questionnaires. The group that was treated with TDCS and drug therapy and the group that received only drug therapy. The trend of migraine headaches in this group was investigated with multiple evaluations. These questionnaires were completed by patients during 5 consecutive sessions to evaluate the headache process.

Results: The obtained results indicated that the headache rate of migraine patients decreased significantly after 5 sessions of TDCS treatment. In terms of the McGill questionnaire, the total score of the questionnaire decreased significantly in the intervention group with TDCS, which was not significant in the control group. Also, the comparison of the total score difference of the two groups was significant. Considering the following criteria of the questionnaire; All the sub-criteria of the intervention group finally showed a significant decrease, which was statistically significant in the areas of emotional perception of pain and diverse pains. Also, the comparison of the two groups in terms of the number and amount of headaches also showed that the reduction in the number of headaches per week was significant in the intervention group, while this comparison was not significant in the control group. In terms of the amount of headache, this was also the case, and this comparison was significant in the intervention group.

Conclusion: The findings of the present study showed that the TDCS treatment method is effective for the treatment of migraine headaches, and specialists in the fields of psychology and health can benefit from these treatments to improve the treatment of migraine. Also, considering the prominent role of pain experience in the lives of people with migraine, programs such as lectures, mindfulness training sessions and TDCS should be conducted by policy makers and health activists to reduce the pain caused by migraine. Finally, it can be said that the use of therapeutic methods such as TDCS is effective for the treatment of migraine and health professionals can benefit from this treatment.

Keywords: Headache, migraine, TDCS