

Determining the Effect of Tdcs in Pain and Quality of Life in Patients with Fibromyalgia

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Abstract : Introduction: Fibromyalgia is a syndrome comprised of a group of symptoms. The primary symptom of fibromyalgia is pain propagation is associated by Secondary symptoms include fatigue, cognitive disorders, sleep disorders and hypersensitivity to painful stimuli. Recent studies have shown that there is a direct relationship between fibromyalgia and certain changes in brain activity. Aim: The aim of this study is determining the effect of tDCS in pain and quality of life in patients with fibromyalgia. Method: 68 patients with fibromyalgia who had inclusion criterias were randomly divided into two groups of case and control. Groups were matched in terms of gender, age, education, duration of pain and PMS. Patient groups treated with tDCS device manufacture by Enraf company made in Netherlands (M1 anodal stimulation, 2 mA constant current, 20 minutes, for 10 sessions (3 days a week)). Also the protocol was done for control group, in sham mode of tDCS device that had no current, for 10 sessions of 20 minutes. Before treatment, immediately after the end of 10 sessions treatment (short-term) and 10 week later (long-term effect), pain intensity questionnaires (VAS) and quality of life in fibromyalgia patients questionnaire was completed by the patient. Results: Pain intensity were significantly lower in the treatment group than the sham group 2 weeks and 10 weeks after treatment than before treatment ($P < 0.001$). Although the quality of life of patients 2 weeks after treatment showed no significant change, but ten weeks after treatment were more than sham group ($P < 0.0001$). Conclusion: Our results suggest that tDCS is a safe and effective in treating fibromyalgia patients and an important effect in reducing pain and increasing quality of their life.

Keywords : fibromyalgia, tDCS, quality of life, VAS score

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