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### **Self-regulation of slow cortical potentials in children with migraine: an exploratory study.**

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Migraine patients are characterized by increased amplitudes of slow cortical potentials (SCPs), representing pronounced excitability of cortical networks. The present study investigated the efficiency of biofeedback training of SCPs in young migraineurs. Ten children suffering from migraine without aura participated in 10 feedback sessions. They were compared with 10 healthy children for regulation abilities of cortical negativity and with 10 migraineurs from the waiting list for clinical efficacy. During the first two sessions, the migraine children were characterised by lacking ability to control cortical negativity, especially during transfer trials, compared with healthy controls. However, there was no difference following 10 sessions of training. Feedback training was accompanied by significant reduction of cortical excitability. This was probably responsible for the clinical efficacy of the training; a significant reduction of days with migraine and other headache parameters was observed. It is suggested that normalization of the threshold regulation of cortical excitability during feedback training may result in clinical improvement.

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