

TRANSCUTANEOUS SUPRAORBITALIS TRIGEMINAL ELECTROTHERAPY WITH CEFALY IN THE TREATMENT OF MIGRAINE CRISIS: PILOT STUDY.

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Background. Cefaly is a medical device having a program delivering high frequency currents (up to 10 mA; 100 Hz; 250 μ s) over the front head. It triggers action potentials on the upper branch of the trigeminal nerve, more precisely on the supratrochlearis and supraorbitalis nerves. It's claimed to be effective in headaches including migraine crisis (<http://www.cefaly.com>). It is thought to act by gate control mechanism.

Objectives. To assess efficacy of Cefaly during a migraine crisis in 8 patients having migraine crisis one to 4 times a week and its influence on pain perception.

Methods. 8 patients frequent migraines applied Cefaly with program 1 (tens program) for 40 minutes up to the highest tolerable intensity during a migraine crisis or at the very first signs indicating the beginning of a crisis. Treatment, headache intensity were monitored with diaries.

Results. After 3 crisis when the 8 patients used Cefaly i.e. on 24 crisis with Cefaly. Nine crises have been efficiently stopped with the Cefaly: patient didn't use any drug and didn't feel any pain after the Cefaly session. Fifteen crises have not been stopped by the Cefaly session but 2 patients reported that the crisis went away with the use of a minor anti-pain drug as paracetamol when usually they need a triptan. Seven patients described that the Cefaly always diminished the pain intensity during the crisis as long the Cefaly session last. It seems that Cefaly stopped the crisis mainly when the session took place at the aura or at the very beginning of the crisis.

Conclusions. This study suggests that Cefaly with its program gate control is effective against migraine crisis when it is used at the very beginning of the crisis. A larger controlled study may be worthwhile and the exact mechanism of action should be investigated in order to improve the protocol and the electrical parameters of the device.