

Comparison of Effects of Peripheral Nerve Block and Topiramate in the Treatment of Medication Overuse Headaches

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Purpose

In this study, we compared the effectiveness of peripheral nerve block (greater occipital nerve block with supraorbital nerve block) versus topiramate as detoxification therapies in chronic migraine patients with medication overuse headache.

Methods

Ninety chronic migraine patients with medication overuse headache were included in this study. Patients divided into the two groups. The first group received topiramate and the second group received nerve block as detoxification therapy. Patients' records regarding the VAS scores and headache frequencies were collected before and after the therapy. Comparisons regarding VAS scores, headache frequencies, 50% responder rates and 75% responder rates were performed in between topiramate and nerve block groups.

Data collection

The study was carried on by 2 neurologists. The first neurologist obtained the data regarding the migraine features from each patient included. Each patient kept a diary documenting frequency, visual analog scale (VAS) as the number of headache attacks in the preceding 4 weeks. At the end of the fourth week, forms were collected by first neurologist and patients were referred the second neurologist for treatment regimens were to be introduced. Detoxification process was maintained in the inpatient clinic for ten days and preventive treatment was started simultaneously by

the second neurologist. After discharge, new forms were delivered and collected by the first neurologist after 4 weeks. All patients were informed about possible adverse reactions and those caused discontinuation of therapy were noted.

Statistical analysis

Normality of distribution was assessed with the D'Agostino-Pearson test. Continuous variables with a normal distribution were assessed in two or more groups using the Student's t-test. Mann Whitney U was utilized to compare the data that were not normally distributed. Nominal categorical data were assessed using the chisquare test. The pre- and post-treatment comparison of normally and non-normally distributed data were undertaken using the paired t-test and the Wilcoxon test, respectively. A two-tailed p value of <0.05 was considered statistically significant.