

## Neurophysiological features of chronic tension headache

Voitiuk A<sup>1</sup>, Litovchenko T<sup>1</sup> and Markova T<sup>2</sup>

<sup>1</sup>Kharkiv Medical Academy of Postgraduate Education, Ukraine

<sup>2</sup>Kharkiv Railway Clinical Hospital, Ukraine

**Introduction:** The world epidemiology of pain puts headache on the first place in the frequency of occurrence among episodic pain syndromes, as well as on the third place after joint pain and dorsalgia. The headache of tension in the General population is up to 70%, occurring in 88% of women and 69% of men. The constant nature and chronicity of these cephalgias significantly reduce the quality of life of patients. The purpose of this study was to study neurophysiological and neuropsychological manifestations of headache of tension.

**Materials & Methods:** We observed 25 patients with chronic tension headache (17 women and 8 men). The control group consisted of 20 healthy subjects. The diagnosis of chronic tension headache was made in accordance with the International classification of headache, 3rd edition. The studies were conducted on the basis of the analysis of clinical symptoms and instrumental studies. EEG, EEG-video monitoring and MRI were used as the screening methods. Neuropsychological study was performed using the Spielger-Hanin self-assessment scale, Hamilton depression scale, subjective asthenia assessment scale (MFI-20), the intensity of headache was assessed using a visual analogue scale (VAS).

**Results:** This study confirmed the existence of chronic tension headaches with a predominance of asthenic and anxious type of flow. Of the 25 patients with tension headache, 18 patients were observed with asthenic type of course and 7 patients with alarming. The level of depression was somewhat higher in patients with anxiety type than in patients with asthenic type of tension headache. The patterns of these types were revealed during electroencephalographic examination. In patients with asthenic type, a decrease in  $\alpha$ -rhythm in the occipital and parietal leads was observed, in patients with an anxious course of the course, an increase in the low-frequency  $\beta$ -rhythm was observed, against a background of a decrease in the  $\alpha$ -rhythm.

**Conclusion:** Thus, the revealed changes on EEG in the form of decrease of  $\alpha$ -rhythm in occipital and parietal leads in patients with asthenic type of chronic headache of tension and increase of low-frequency  $\beta$ -rhythm, on the background of decrease of  $\alpha$ -rhythm in patients with an alarming type of course confirm the presence of neurophysiological differences in tension headache.

a\_vojtyuk@yahoo.com