

## **Prevalence of headache among patients with epilepsy**

**E. Czapińska-Ciepiela**

*Epilepsy and Migraine Treatment Centre, Epilepsy and Migraine Treatment Centre, Poland*

Headache and epilepsy are two common neurological disorders and their relationship is still a matter of debate. Recent research suggests their shared pathophysiology and indicates similar genetic and environmental risk factors. The objective of this study was to estimate the prevalence and clinical features of headaches in patients with epilepsy and evaluate a temporal relationship with epileptic seizures. Methods: 200 patients with epilepsy aged  $\geq 16$  years treated in Epilepsy and Migraine Treatment Centre in Poland were consecutively recruited to the study. They underwent a semi-structured interview including the International Classification Headache Disorders (ICHD-III) criteria to diagnose the occurrence of headache during past year. The patients were asked about temporal relationship between their headaches and seizures. Demographic data, epilepsy duration, seizure frequency, seizure type, epilepsy type and antiepileptic medications used were captured from the medical records. The results were compared to the headache prevalence in healthy control of 200 people. Results: headaches were more prevalent in people with epilepsy than in healthy control and the most prevalent type of headache was migraine (35% compared to 28,5%). In both groups migraine was more prevalent among women irrespectively of age. Migraine was less prevalent among patients who were treated with valproic acid and/or topiramate and/or gabapentin in comparison to other antiepileptic drugs. Occurrence of headaches during past year was not connected to the type and duration of epilepsy or seizure frequency. The most prevalent were inter-ictal headaches occurring in 74% patients. Post-ictal headaches occurred in 34,5% and pre-ictal headaches in 11,5% patients. Post-ictal headaches usually had clinical features of migraine and were more prevalent among patients who also suffered from inter-ictal headaches and were not connected to seizure type. Conclusions: In our study there was a clear connection between epilepsy and migraine regarding prevalence, temporal relationship with seizures and shared treatment.