



Correlation between sleep bruxism and headaches evaluated by polysomnography

Wagner Hummig¹, José Stechman-neto², Aline Xavier Ferraz², Rodolfo Jorge Fortes Kubiak, Carla Fabiane da Costa Zonta¹, Flávio Magno Gonçalves², Reynaldo Todescan Júnior³

¹Institute of Neurology of Curitiba, Curitiba, Paraná, Brazil

²Tuiuti University of Paraná, Curitiba, Paraná, Brazil

³University of Manitoba, Winnipeg, Manitoba, Canada

Objective

This aims to investigate a potential correlation between sleep bruxism (SB) and patients complaining of primary headaches whose previous diagnose was polysomnography (PSG) with electrodes positioned in the masseter region.

Background

Sleep bruxism is an abnormal repetitive activity of masticatory muscles. It occurs during sleep for short or long periods, with or without dental contact. Several studies have deemed it as possible causative and/or aggravating factors of primary headaches.

Method

The sample consisted of observing 91 electronic records of patients (65 females and 26 males) diagnosed with some type of primary headache. The adopted criteria were those of the International Classification of Headache Disorders, 3rd edition (ICHD-3 Beta). All patients underwent polysomnography with electrodes on the masseters to assess the presence of sleep bruxism. Data were analyzed using Chi-square test and Student t test, with a confidence interval of 95%, adopting $p < 0.05$ as level of significance. The JASP software, version 0.17.2.1, was used for analyses.

Results

There were no statistically significant differences regarding the correlation between different types of primary headaches and the presence of sleep bruxism.

Conclusion

The results suggest that the presence of sleep bruxism identified by polysomnography does not point to a significantly high incidence of primary headaches compared to individuals in whom the absence of bruxism was confirmed by the same method.