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The effect of sleep duration in clinical features and impact of migraine: Result from a population-based study

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Background

Although sleep disturbances are a common complaint in migraine patients, the role of sleep habits such sleep duration in clinical features and impact has been poorly analyzed.

Objective

To assess the influence of sleep duration on clinical features and impact of migraine.

Methods

We selected a stratified random population sample of Koreans over age 19 and evaluated them with a 60-item semi-structured interview designed to identify headache type using ICHD-2 criteria and sleep status such as sleep duration and sleep onset time. We also included items for demographics and HIT-6.

Results

Of 2,836 all participants, 152 were diagnosed as having migraine. The mean sleep duration similar between migraineurs (7.1±1.5 hours) and non-migraine controls (7.1±1.3 hours). Among migraineurs, 15 (9.9%) participants slept ¡Â5 hours, 83 (54.6%) slept 5-7 hours, 44 (28.9%) slept 7-9 hours, and 10 (6.6%) slept >9 hours in weekdays. Migraineurs with sleep duration of ≤5 hours reported higher migraine attack frequency (9.8±11.3 attacks per month) comparing to a sleep duration of >5 hours (3.8±6.3 attacks per month, p=0.001). Migraineurs with ≤5 hours sleep duration showed a tendency of increased HIT-6 score (59.7±9.9) comparing to sleep duration of 7-9 hours (53.1±5.8, p=0.088). Unilateral pain was more prevalent among migraineurs with sleep duration of >5 hours comparing to sleep duration of ≤5 hours. Headache severity, pulsating quality, aggravation by movement, nausea, vomiting, photophobia and phonophobia was not significant according to sleep duration.

Conclusions

High attack frequency is associated with sleep duration of ≤5 hours among migraineurs.

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