Excessive daytime sleepiness in adults with possible attention deficit/hyperactivity disorder (ADHD): a web-based cross-sectional study.

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Abstract

OBJECTIVES:
Arousal dysregulation has been speculated to be involved in the pathological mechanism of attention deficit/hyperactivity disorder (ADHD). However, there has been no epidemiological study assessing the real condition of excessive daytime sleepiness (EDS) in adults with ADHD. This study investigated the prevalence of EDS and the relationship between sleepiness and ADHD symptoms in adults with possible ADHD.

METHODS:
An observational, cross-sectional, web-based study was performed. Participants were 9822 Japanese adults aged 20-69 years who completed an Internet-based questionnaire that assessed ADHD symptoms, autistic traits, depressive symptoms, chronotype, sleepiness, and sleep disturbances.

RESULTS:
Participants with possible ADHD were more likely than non-ADHD participants to have an evening chronotype and experience depressive symptoms, sleepiness, and sleep disturbances. The rates of having moderate and severe sleepiness in the possible ADHD group were higher than those in the non-ADHD group. Hierarchical logistic regression analyses revealed that the presence of ADHD symptoms was independently associated with EDS even after adjusting for factors related to the presence of sleepiness. When examining inattention and hyperactivity scores among participants with possible ADHD, the inattention score was significantly higher in the severe EDS group compared with the moderate and non-EDS groups.

CONCLUSIONS:
EDS was relatively common in adults with possible ADHD. ADHD symptoms, especially inattentiveness, were associated with the formation of EDS in this population.