

Increased incidence of alcohol use disorder and alcohol-related psychiatric disorders in patients with obstructive sleep apnea: a nationwide population-based cohort study

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Background

Obstructive sleep apnea (OSA) increases the risk of depression, posttraumatic stress disorder, and neurocognitive disorder. OSA and alcohol-related diseases (ARDs) both are highly prevalent conditions. Alcohol consumption is associated with a higher risk of sleep apnea. However, whether OSA increases the risk of ARDs has not, as yet, been studied comprehensively.

Aims & Objectives

Our study aimed to determine whether OSA increases the subsequent risk of ARDs.

Methods

This study utilized the data from Taiwan's National Health Insurance Database between 2000 and 2015. We identified 7,722 individuals newly diagnosed with OSA and randomly selected sex-, age-, and index date-matched (1:3) 22,166 controls without OSA, with a total of 29,888 subjects. We used the Fine and Gray's survival analysis to estimate the effects of OSA on ARDs.

Results

The OSA cohort had an adjusted hazard ratio of subsequent ARDs as 1.486 (95% Confidence Interval: 1.301-1.698), when comparing the cohort without sleep disorders. The Kaplan-Meier analysis showed that in the first year of follow-up, the cumulative incidence of ARDs was higher in the OSA cohort than in the controls till the end of the follow-up. In this study, OSA was associated with alcohol use disorder and alcohol-related psychiatric disorders, but not alcoholic liver disease, alcoholic polyneuropathy alcoholic cardiomyopathy, and alcoholic gastritis. The psychopharmacological treatments, including the sedative-hypnotics, antidepressants or antipsychotics were associated with a lower risk of ARDs.

Discussion & Conclusion

Our study demonstrates that the OSA patients are at a higher risk of developing ARDs. Treatment underlying psychiatric disorder using antidepressant or antipsychotic may alleviate the possible prevalence of OSA and following ARDs comorbidity.