Short sleep duration, sleep disorders and traffic accidents

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Sleepiness is known as an important cause of traffic accidents and previous studies have shown that the rate of individuals having excessive daytime sleepiness (EDS) reached as much as 15% of general population. The main causes of EDS are (1) chronic sleep debt, (2) deterioration in the quality of sleep, (3) disruption of circadian rhythms and (4) primary hypersomnia. Among these, chronic sleep debt is the most frequent cause of EDS. However, although an accumulated lack of nocturnal sleep can result in serious deficits in neurobehavioral function, the increase in subjective sleepiness under such conditions remains mild. That is, people with chronic lack of adequate sleep may underestimate their own sleepiness. Unwanted sleepiness may also occur due to the disruption of circadian rhythms in situations such as jet lag or shift work as well as primary circadian rhythm sleep disorders such as delayed sleep phase. People whose quality of sleep deteriorates as a result of sleep disorders that cause frequent interruption of nocturnal sleep such as obstructive sleep apnea syndrome and periodic limb movement disorder can develop secondary hypersomnia. In addition, while primary hypersomnia such as narcolepsy and idiopathic hypersomnia is relatively rare, it can cause sleepiness-related traffic accidents. In this meeting, I will discuss about the impact of the lack of sleep on the incidence of traffic accidents as well as the individual effects of various sleep disorders on accidents. In addition, I will introduce recently established methods for detecting sleepiness and strategies for preventing sleepiness at the wheel.

Biography

Yuichi Inoue has completed his MD from Tottori University Faculty of Medicine, Tottori Pref. in the year 1987, BS from Tokyo Medical University-Tokyo in 1982. He worked as a Professor of Psychiatry in Tokyo Medical University in 2007 and became Director of Japan Somnology Center Neuropsychiatric Research Institute in 2008, in the same year he was the Professor of Somnology at Tokyo Medical University and became President of Yoyogi Sleep Disorder Center in 2011. He is involved in The Japanese Society of Sleep Research, Japanese Society of Biological Psychiatry, Japan Society of Neurovegetative Research, World Federation of Sleep Research Society and World Sleep 2015 as Board of Director, Board of Councilor, Programme Committee Co-chair and Organizing Committee Chair respectively. He has more than 190 publications on his name in English language.

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