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Oral Presentation

Excessive Daytime Sleepiness, Dozing at the Wheel and Road Safety

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Abstract

It has been documented that nearly 25-30% of automobile collisions are potentially associated with driving fatigue. We have little control over sleep propensity when chronically sleep-deprived or suffer from an underlying sleep insufficiency. Drowsy driving is not only a personal but also a public hazard and commercial drivers with alternate shifts are critically at risk. People on monotonous drives and those with undiagnosed sleep disorders such as sleep apnea and narcolepsy show to sleep or doze-off while driving. Sadly, traffic collision ranks the second most common cause of mortality in Iran. Several studies have reported that obstructive sleep apnea syndrome (OSAS) increases the risk of car crash. We have epidemiological evidence indicating that above 20% of the Iranian population suffers from various degrees of OSAS. Based on the studies, history of witnessed apnea during sleep is one of the most important predictors of motor vehicle accidents. We suggest testing public transport drivers in Fars province for OSAS risk using the Berlin and Stop Bang questionnaires. Cases who are distinguished as high risk for OSAS would then need to undergo further evaluations using actigraphy or polysomnography (PSG) in our standard hospital-based sleep laboratory. Subsequently, patients who are found to suffer from moderate to severe OSAS (apnea-hypopnea index or AHI >15) with proven excessive daytime somnolence would be targeted to receive proper medical care. The current standard of care for OSAS is the continuous positive airway pressure (CPAP). When employed appropriately and under the close follow up of sleep experts, CPAP is shown not only to improve nocturnal sleep quality and ameliorate daytime sleepiness, but also improve patients' daytime vigilance and neurocognitive agility parameters such as attention, memory and executive function represented by reduced reaction time in driving. Current sleep research findings in Iran indicate that many people with untreated OSAS still involve in high-risk jobs including public transportation. When attempting to make our roads safer, the drowsy driving issues and underlying medical factors should be taken into consideration. Well-designed studies need to focus on the prevalence of this syndrome among the population and the public transport drivers in particular.

Keywords: Drowsy Driving, Sleep Disorders, OSAS, Screening, Public Transport Drivers, Treatment.

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