OBSTRUCTIVE SLEEP APNEA SYNDROME IN PROFESSIONAL BUS DRIVERS

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Background: Professional bus drivers are particularly exposed to the effects of sleep breathing disorders (SBD). Due to their manner of work: night shifts, sitting position, they are at high risk of developing SBD. Public safety and financial responsibility require an adequate assessment of drivers' health condition.

Aim: The aim of the study was the evaluation of breathing disorders during sleep in the population of professional public transport bus drivers.

Methods: The study was conducted in a group of 364 public bus drivers and in 191 controls from epidemiological study BialystokPlus. A survey, including the ESS, STOP-BANG questionnaire (SBQ), presence of OSAS symptoms, cardiovascular and respiratory illnesses, smoking habits and diabetes was performed. An additional question regarding irresistible day sleepiness leading to stopping the bus/car was also asked. Additionally, type 3 sleep study was performed.

Results: In the studied population the frequency of significant OSAS (AHI>30 or >15 with daytime sleepiness) was observed in 7,9% of bus drivers vs. 9% of controls ($p < 0,05$). Twenty nine bus drivers required CPAP treatment according to EU directive guidelines, but only 13 subjects (47%) agreed for CPAP treatment and followed the protocol. In this group, in all cases, AHI normalization was observed. SBQ questionnaire was most accurate (in comparison to NoSAS and ESS) to predict the OSAS in the studied group.

Conclusions: In professional bus drivers OSAS appear to be less prevalent than in general population. SBQ may be more accurate than ESS or NoSAS for screening for OSAS.