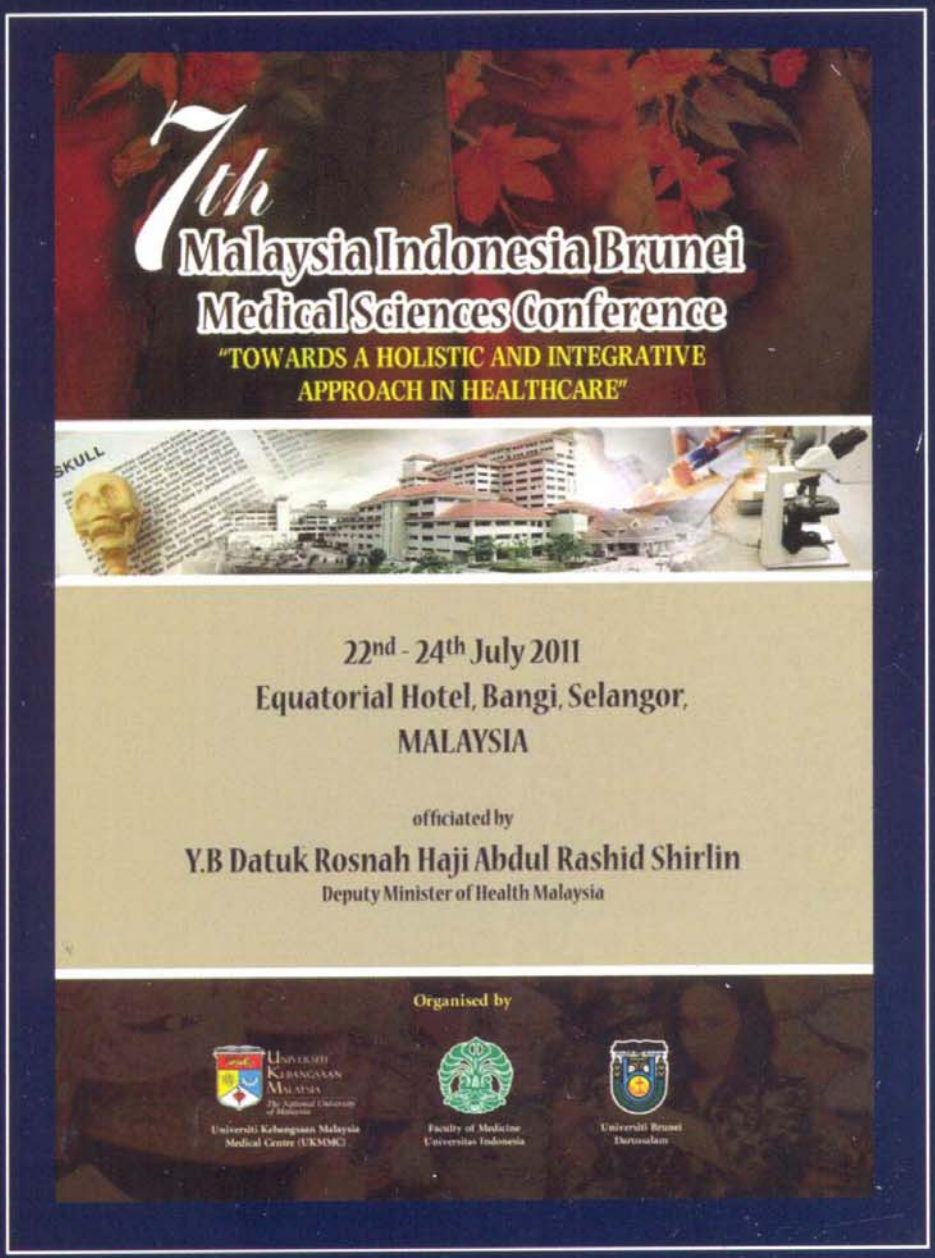
Volume 6, No. 1 (Supplement)
June 2011
ISSN 1823-2140

The National University with an INTERNATIONAL REACH

UNIVERSITI KEBANGSAAN MALAYSIA
National University of Malaysia

MEDICINE & Health

The Official Journal of The Faculty of Medicine UKM



THE CONTRIBUTION OF OBSTRUCTIVE SLEEP APNOEA TO BUS ACCIDENTS: TRUTH OR MYTH?

Abdullah SM

Department of Otorhinolaryngology, Head and Neck Surgery, Universiti Kebangsaan Malaysia Medical Centre, Kuala Lumpur, Malaysia

Obstructive sleep apnoea syndrome (OSA) is a disease which is characterized by snoring and daytime sleepiness. It is primarily caused by upper airway obstruction which occurs during sleep. Since daytime somnolence is a major characteristic feature, it is only logical that OSA causes accidents, not the least bus accidents. Although there are many studies to show that OSA contributes to accidents, there are also studies that show otherwise. Somnolence or sleepiness is subjective and is measured on a subjective Epworth sleepiness scale. The more severe the disease, the worse is the sleepiness. Patients with milder disease have learnt to disguise or overcome their sleepiness by taking stimulants such as coffee or even illegal drugs to ensure they can continue driving. Those with severe disease will have enough sense not to embark on driving a public vehicle.

A landmark study on the incidence of OSA amongst bus drivers was jointly undertaken by UKM and the Malaysian Institute of Road Safety Research (MIROS) amongst commercial bus drivers in Malaysia. This cross sectional study was undertaken over 6 months in 2008 - 2009. There were 292 subjects, 289 of whom were eligible for analysis. 128 subjects (44.3%) had OSA. Out of this, the majority (65%) were mild, followed by 20% with moderate and 15% had mild OSA.

In this study, we were unable to demonstrate any relationship between OSA and motor vehicle accidents (MVA). This can be explained by the fact that the majority were indeed mild cases which the subjects had managed to "mask" their sleepiness so as to avoid any tragedy.

We conclude that the causes of MVA amongst bus drivers are multi factorial. They may be due to driver factors (fatigue, loss of concentration, drowsiness), vehicle factors (the roadworthiness), road condition and environmental factors. We also have no doubts that the sleepiness associated with OSA play a role in accidents although this is not easy to prove statistically, nor easy to demonstrate in a randomized clinical trial.