

Ethnicity, Obstructive Sleep Apnoea and Ischaemic Heart Disease

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Abstract

We studied the relationship between different ethnic groups, obstructive sleep apnoea (OSA) and ischaemic heart disease. Four hundred and thirty-two inpatients from the medical wards were interviewed. Limited overnight sleep studies were done in 129 of those who had habitual snoring, daytime sleepiness based on an Epworth sleepiness scale of 8 or more, or a large neck size of 40 cm or more.

There were 315 Chinese (72.9%), 67 Malays (15.5%), 43 Indians (10%) and 3 from other races (1.4%). The prevalence of OSA was 19.7%, 30% and 12% among the Chinese, Malays and Indians, respectively. The prevalence ratio for OSA was 1.52 in Malays using Chinese patients as the baseline (P = 0.07). The median neck circumference was 37 cm in both racial groups. The median body mass index was 22.7 kg/m² in Chinese compared to 23.6 kg/m² in Malays. The median apnoea-hypopnoea index was 22.7, 19.0 and 26.9 events/hour among the Chinese, Malays and Indians, respectively.

OSA was independently associated with the prevalence of IHD (adjusted prevalence ratio 1.68; 95% CI: 1.15, 2.46; P = 0.009). The prevalence of ischaemic heart disease (IHD) was 31%, 24% and 28% in Chinese, Malays and Indians, respectively. The prevalence ratio for IHD in Malays compared to Chinese was 0.77. After adjusting for OSA, there was an even greater reduction in the risk of IHD (adjusted prevalence ratio 0.70). This suggests that OSA is a confounder in the relationship between race and ischaemic heart disease.

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