

Incidence of Ischaemic Heart Disease and Stroke in Chinese, Malays and Indians in Singapore: Singapore Cardiovascular Cohort Study

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Abstract

Introduction: This is the first prospective cohort study in Singapore to describe the incidence of ischaemic heart disease (IHD) and stroke among Chinese, Malays and Asian Indians. **Materials and Methods:** The Singapore Cardiovascular Cohort Study is a longitudinal follow-up study on a general population cohort of 5920 persons drawn from 3 previous cross-sectional surveys. Morbidity and mortality from IHD and stroke were ascertained by record linkage using a unique identification number with the death registry, Singapore Myocardial Infarct Registry and in-patient discharge databases. **Results:** There were 193 first IHD events and 97 first strokes during 52,806 person-years of observation. The overall incidence of IHD was 3.8/1000 person-years and that of stroke was 1.8/1000 person-years. In both males and females, Indians had the highest IHD incidence, followed by Malays and then Chinese. For males after adjusting for age, Indians were 2.78 times (95% CI 1.86, 4.17; P <0.0001) and 2.28 times (95% CI 1.34, 3.88; P = 0.002) more likely to get IHD than Chinese and Malays respectively. For females after adjusting for age, Indians were 1.97 times (95% CI 1.07, 3.63; P = 0.03) and 1.37 times (95% CI 0.67, 2.80; P = 0.39) more likely to get IHD than Chinese and Malays respectively. For stroke, male Chinese and Indians had higher incidence than Malays (though not statistically significant). However, in females, Malays had the highest incidence of stroke, being 2.57 times (95% CI 1.31, 5.05; P = 0.008) more likely to get stroke than Chinese after adjustment for age. **Conclusions:** This prospective study of both mortality and morbidity has confirmed the higher risk of IHD in Indians. It has also found that Malay females have a higher incidence of stroke, which deserves further study because of its potential public health importance.

Ann Acad Med Singapore 2000; 29:231-6

Key words: Cerebrovascular disease, Epidemiology, Ethnicity, Longitudinal study

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