Diabetes mellitus in primary care: does ethnicity matter?

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In the 1998 National Health Survey, the crude prevalence of diabetes mellitus in adult Singaporeans was 9.0% (1). The crude prevalence of diabetes mellitus was highest among Indians at 15.8% and lowest among the Chinese at 8%. Among people known to have diabetes mellitus, the mean glycated haemoglobin (HbA1c) was 8.5%. Of people with diabetes mellitus of Malay extraction, 64.5% had HbA1c >8.0%, while 52.4% of Chinese and 45.8% of Indians had similarly high levels of HbA1c.

In this issue of the Singapore Medical Journal, Hong CY et al (2) report on the inter-ethnic differences in a multi-ethnic group of patients with (presumptive) type 2 diabetes mellitus being managed at a local primary care polyclinic. In this cross-sectional study of 967 patients with type 2 diabetes mellitus in which the median age was 62 years, the adjusted mean HbA1c was 8.3% for Indians, 8.0% for Malays and 7.7% for Chinese, somewhat lower than that reported from the people known to have diabetes mellitus in the 1998 National Health Survey. While HbA1c assays are known to vary between laboratories, both the study by Hong et al as well as the 1998 National Health Survey reported using high-performance liquid chromatography methodology. However, while the people known to have diabetes mellitus from the 1998 National Health Survey were presumably being managed at a variety of healthcare facilities, both private as well as public, the subjects in the present report were all being managed at a single primary care polyclinic.

The different ethnic groups in the two studies also appeared to fare differently in terms of HbA1c levels, with the Indians in the present report faring worse than the other two ethnic groups. The report by Hong et al further indicates that Indian patients with type 2 diabetes mellitus that were managed at the polyclinic were less likely to have hypertension and microalbuminuria/proteinuria. There were also interesting inter-ethnic differences in body mass index.

In a report from the Singapore Cardiovascular Cohort Study on a group of multi-ethnic male subjects (including male subjects from the 1992 Singapore National Health Survey), Lee et al confirmed that Indian males are more susceptible to coronary heart disease. Compared to Chinese males and Malay males (3), a separate nine-year mortality follow-up study of subjects from the 1992 Singapore National Health Survey found that diabetes mellitus was associated with increased mortality after adjustment for age, gender, ethnic group and educational level (4). Interestingly, the authors also reported that Indians with diabetes mellitus experienced significantly greater mortality compared to Chinese with diabetes mellitus, after adjustment for age, gender, educational level, smoking, hypertension, alcohol intake and obesity (5).
Diabetes mellitus is a multifaceted disease that makes its presence felt not only to the primary care physician, but also to specialists in many different specialties.
REFERENCES