

Cardiovascular risk factors and mortality in Bangladesh



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Dear Sir,

In the recently published article on the Steps 2006 survey data of Bangladesh by Zaman et al.¹, a low prevalence of high total cholesterol (>240 mg%) and low fasting blood glucose levels have been reported. However, I would like to reiterate that simply measuring total cholesterol only may not reflect the true dyslipidemia risk among South Asians, in whom the HDL cholesterol levels are known to be particularly low with a normal/low total cholesterol or LDL cholesterol.² The following observations of the south Asia INTERHEART study,³ regarding the mean age of presentation of first AMI and level of the risk factors in Bangladesh merits attention, though the sample was not randomly selected.

The south Asia INTERHEART Study found striking variations in the mean age of presentation of first acute myocardial infarction (AMI) between the five south Asian countries of India, Pakistan, Sri Lanka, Bangladesh and Nepal. Bangladeshis suffered first AMI at the youngest age (mean (SD) age of 51.9 (11.0) years), while the oldest patients of first AMI lived in Nepal (mean (SD) age 58.9 (11.8) years). The youngest mean age of presentation of AMI in Bangladesh corresponded with the highest prevalence for the most risk factors among the controls in Bangladeshis within the five south Asian countries: current and former smoking (59.9%, as compared to 34.6% in Indians), elevated ApoB₁₀₀/Apo-I ratio (59.7% as compared to 36.5% in Indians), abdominal obesity (43.3% as compared to 19.5% in Indians), self-reported history of hypertension (14.3%, as compared to 11.4% in Indians), and depression (43.0%). Similarly, Bangladesh had the lowest prevalence for protective factors like regular moderate to high intensity physical activity (1.3% as compared to 6.8% in Indians) and daily intake of fruits and vegetables (8.6% as compared to 37.5% in Indians). Leisure time physical activity may be culturally unacceptable in most Muslim women. A history of diabetes was highest among Indians (11.9%) among the five south Asian countries. Similar observations also have been made in migrant Bangladeshis living in the United Kingdom, who were the most disadvantaged in a range of risk factors.⁴ As compared to migrant

Indians and Pakistanis, migrant Bangladeshis (particularly men) had higher smoking rates (57%), higher triglyceride levels (180.69 mg%) and fasting glucose (118.8 mg%) and lower HDL cholesterol (37.5 mg%), and higher diabetes (26.6%), though the blood pressure was lower.⁴

In view of this, why according to the WHO Global Status Report on Non-Communicable Diseases (2014), the age-adjusted cardiovascular mortality in Bangladesh is lowest among south Asian countries and almost similar to that in USA⁵ is an enigma, which needs to be resolved by more research.

Warm regards

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