Prevalence of metabolic syndrome and its risk factors in adult Malaysians: Results of a nationwide survey

Abstract

Aim To report the national prevalence of metabolic syndrome (MetS) and its risk factors among adult Malaysians (>18 years old) based on World Health Organization (WHO), the National Cholesterol Education Program Expert Panel III (ATP III), International Diabetes Federation (IDF) and the ‘Harmonized’ criteria. Methods A multi-stage stratified sampling method was used to select 4341 subjects from Peninsular and East Malaysia. Subjects underwent physical and clinical examinations. Results Based on the WHO, ATP III, IDF and Harmonized definitions, the overall crude prevalences of MetS were 32.1, 34.3, 37.1 and 42.5%, respectively. Regardless of the criteria used, MetS was higher in urban areas, in females, in the Indian population and increased significantly with age. Risk factors also increased with age; abdominal obesity was most prevalent (57.4%), was higher in females (64.2%) and was highest in Indians (68.8%). Hypertension was higher in males (56.5%) and highest among Malaysians (52.2%). In contrast, the Chinese had the highest prevalence of hypertriglyceridaemia (47.4%). Conclusions Malaysia has a much higher prevalence of MetS compared with other Asian countries and, unless there is immediate intervention to reduce risk factors, this may pose serious implications on the country's healthcare costs and services.