Dietary Patterns of the Metabolic Syndrome Among Older Adults in Malaysia

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ABSTRACT

The term metabolic syndrome (MetS) describes a clustering of risk factors for cardiovascular disease and type 2 diabetes mellitus which include high blood pressure, low fasting high-density lipoprotein cholesterol (HDL-c), high fasting triglyceride (TG), high fasting blood glucose (BG), and abdominal obesity. The aim of this cross sectional study was to determine the dietary patterns (DPs) associated with MetS among 451 older adults in Malaysia. Food intake was determined using validated Diet History. DP was identified based on 40 food groups by using principal component analysis (PCA), and the factors were rotated by varimax rotation. Fasting venous blood samples were taken to determine HDL-c, TG and BG level. Blood pressure and anthropometric measurements were also performed. Three major dietary patterns have been identified; 1) bread, spreads and oats, 2) Malaysia traditional pancakes and 3) vegetables and healthy cooked dishes. Three models were built to compare the potential confounder such as age, education years, marital status, calorie intakes, cigarette smoking and body mass index (BMI). Only vegetables and healthy cooked dishes DP was associated with MetS. This DP reflects high consumption of various types of vegetables, noodle in soup, healthy cooked fish or seafood and low consumption of all type of high calorie rice, noodles and fried desserts. For all models, subject in the highest tertile of vegetables and healthy cooked dishes DP had a lower odd ratio (OR) for MetS as compared to lowest tertile. As more potential confounders added in new models, the significant values are increased. After adjustment of body mass index, the association for vegetables and healthy cooked dishes DP was attenuated (OR: 0.67, CI: 0.39-1.16, p: 0.156). In conclusion, high consumption of vegetable and healthy cooked dishes may lower the occurrence of MetS among Malaysian elderly.

Keywords: Dietary patterns; metabolic syndrome; older adult

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