The relationship between snacking and risk of individual components of metabolic syndrome in normal-weight adults aged greater than 20 years in Ahvaz, Iran

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Individuals with metabolically obese normal weight (MONW) despite having a normal weight and body mass index (BMI) show obesity-related abnormalities. We aimed to evaluate the relationship between snacking habit and risk of individual components of metabolic syndrome (MetS) in normal-weight adults aged greater than 20 years in Ahvaz, Iran. This cross-sectional study was conducted in a randomized sample of 328 normal-weight subjects (18.5≤BMI≤24.9 kg/m²) above 20 years in Ahvaz, Iran. Anthropometric indices, systolic and diastolic blood pressure and lipid profile were measured. The components of MetS used in this study were selected according to International Diabetes Federation (IDF) definition. Dietary intake was evaluated by a validated 50-item semi-quantitative food frequency questionnaire (FFQ). Snacks were defined as energy-dense-nutrient poor foods and low energy-dense and high-fiber foods such as fruits. The proportion of males with higher fetal bovine serum (FBS) and TG was significantly greater than females, while abdominal obesity and low HDL-C were more incident in female subjects compared with males. Higher proportion of most components of the MetS was observed in older age groups with lower education levels. Higher intake of cakes and biscuits was significantly correlated with abdominal obesity (OR=1.016; 95%CI: 1.002-1.030). High chocolate intake significantly correlated with high blood pressure levels (OR=1.028; 95%CI: 1.002-1.055). No significant correlation was found regarding with other snacks. It was concluded that consumption of unhealthy snacks such as cakes and biscuits with high content of sugar, fat and refined carbohydrates and products such as chocolate with low-flavanol content are important dietary snacking habits correlated with abdominal obesity and hypertension in normal weight adults. Therefore, it is suggested to have some educational programs in order to reduce the consumption of such snacks.

Biography
Ahmad Zare Javid is an Assistant Professor at Ahwaz University of Medical Sciences, Iran. He has completed his PhD in Nutrition Sciences from Newcastle University, UK. His research interests are mainly “Nutrition and Oral Health” and “Diabetes and Diet”. He is teaching some nutritional modules to PhD, MSc and BSc students. He is also supervising some PhD, MSc and BSc students in their thesis.

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