عنوان مقاله:

Determination of Obesity Indices Cut-Off Points for Predicting Metabolic Syndrome in Inactive College Students

نویسندگان:

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خلاصه مقاله:

Objective: The present this study aimed to determine the proper cut-off points for waist circumference (WC), Waist to height ratio (WHtR) and body mass index (BMI) for early predicting of metabolic syndrome among inactive college students. Materials and Methods: In this cross-sectional study, ۱۲۶ males (age ۲۰.۳۳±۱.۷۱) and ۶۳ females (age ۲۰.۳۶±۱.۷۲) with inactive lifestyle participated. Based on the metabolic risk factors, the participants were assigned to group ۱ (one risk factor and less) or group ۲ (two risk factors and more) separately. Data were obtained using a questionnaire, anthropometric and physical fitness (VO۲max) measurements and blood sampling. Independent t-tests was used to show between-group differences according to the numbers of risk factors, Pearson correlation coefficient was used to determine the relationship between obesity indices and metabolic risk factors, and the ROC curves was used to estimate the power of predicting and to determine the cut-off points for metabolic syndrome's risk factors. Results: Significant correlation between obesity indices and metabolic risk factors (Except blood glucose and systolic blood pressure in males) were observed. As the number of metabolic risk factors increased, the significant elevation of obesity indices in both genders were observed. All obesity indices were within normal range except fat percentage. Cut-off points for BMI, WC and the WHtR, were ۲۱.۱۹, ۲۰.۸۴ and ۷۷.۷۵, ۰.۴۶ and ۷۵.۵۰, ۰.۴۸ for males and females respectively. Discussion: The best predictive indices and cutoff points for susceptibility to metabolic syndrome were: in males, ۷۷.۷۵ for WC and in females, ۲۱.۱۹ for BMI. It should be noted that in the present study, two or more factors were considered to determine the cut-off points to diagnose susceptible individuals.

کلمات کلیدی:

Metabolic syndrome, Sedentary lifestyle, Obesity indices