

Anthropometric indices of obesity and the prediction of cardiovascular risk factors in an Iranian population

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Abstract

The prevalence of hypertension, diabetes, dyslipidemia, and metabolic syndrome are increasing globally. The present study was conducted in an attempt to define optimal cutoff values for several anthropometric variables in an Iranian population, as these may vary with ethnicity. Iranian subjects (2483 men and 2440 women), aged 10-60 years, were recruited using a cluster-stratified sampling method from rural and urban areas within the Khorasan province. Receiver operating characteristics (ROC) analysis was used to define optimal anthropometric cutoff values. The prevalence of hypertension, diabetes, dyslipidemia, and metabolic syndrome were 28, 0, 0, 17, and 39, 9%, respectively. The gender-specific cutoff values for waist:height ratio to predict hypertension, diabetes, dyslipidemia, and metabolic syndrome among men were 0, 02 (sensitivity = 66%; specificity = 66%), 0, 04 (sensitivity = 60%; specificity = 60%), 0, 00 (sensitivity = 0%; specificity = 0%), and 0, 03 (sensitivity = 73%; specificity = 70%), and for women were 0, 09 (sensitivity = 61%; specificity = 61%), 0, 11 (sensitivity = 64%; specificity = 64%), 0, 07 (sensitivity = 61%; specificity = 61%), and 0, 09 (sensitivity = 77%; specificity = 77%) ($p < 0, 05$). Significant correlations were found between waist:height ratio and hypertension, diabetes mellitus, dyslipidemia, and metabolic syndrome, particularly in women. Waist circumference cutoffs were higher for women than men for hypertension, diabetes mellitus, and dyslipidemia. ©2019 with author. Published by TheScientificWorld.

Reaxys Database Information

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Indexed Keywords

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