

Anthropometric indicators and the risk of hypertension in Indian adults

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Objectives: Overweight and obesity is becoming a public health concern in India. However the information on various anthropometric indicators that predict the risk of hypertension in Indian population is scanty. Our objective is to document the data and predict the risk of hypertension by various anthropometric indicators.

Design: A cross-sectional study.

Setting: The appraisal data derived from Health and well-being in later life (HAWILL) survey in Rayalaseema Region of Andhra Pradesh, India during 2010-2011.

Subjects: A total of 1796 adult subjects (837 males + 959 females) ≥ 20 yrs participated in the study.

Results: Receiver operating characteristic curve analysis was used to measure the predictive hypertensive performance of each anthropometric measurement based on the area under the curve (AUC). Among 5 anthropometric indices, WC found to have highest AUC (0.653 for men and 0.623 for women) to predict the risk of hypertension. Our findings suggested that anthropometric indices are best indicators to assess the risk of hypertension. The optimal cutoff values for BMI, WC, HC, WHtR and WHR are considered as 24.61 kg/m², 85.75 cm, 102.50 cm, 0.54, 0.89 for males and 25.25 kg/m², 84.50 cm, 103.50 cm, 0.58, 0.87 for females respectively in the Indian population.

Conclusion: Developing policy measures for the maintenance of optimal cutoff's for anthropometric indicators will be an ideal measure to identify the at risk population groups especially in India where rapid life style changes are taking place in line with urbanization.

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