Prevalence and Predictors of Hypertension in an Ethnic Population of South India

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ABSTRACT The present study investigated the incidence and predictors of hypertension in the Mala community from rural areas of Chittoor district of Andhra Pradesh, South India. A sample of 286 subjects comprising 139 male and 147 female aged 20-70 years was drawn randomly. Blood pressure was recorded with sphygmomanometer in the right arm in sitting position after a rest period of five minutes. Details on age, sex, family history, smoking and alcohol intake were enquired. Hypertension was diagnosed if the blood pressure was \( >140/90 \) mmHg. Anthropometric variables like height, weight, waist and hip circumferences, skin fold thickness at six sites i.e. biceps, triceps, sub-scapular, suprailliac, abdomen and calf were measured. BMI \( >25 \) and WHR \( >0.9 \) (male), \( >0.8 \) (female) were considered as obese and central obese, respectively. Prevalence of hypertension in the present population was found to be 4.89\% (5.7\% in males and 4.08\% in females). Smoking and alcoholism was observed in respectively 58\% and 62\% of males only. Higher prevalence of obesity was observed in males (10\%) than females (8\%), and central obesity was also hogher (64\%) in males than in females (28\%). The family history of hypertension was observed more in females (6\%) than males (5\%) but the difference was not statistically significant. A higher prevalence of smoking (35\% vs 30\%), alcoholism (35\% vs 29\%), obesity (70\% vs 8\%), central obesity (100\% vs 45\%) and family history of hypertension (71\% vs 2\%, \( p<0.05 \)) was observed in hypertensive against normotensive. In multiple regression analysis, diastolic blood pressure (Odds ratio 1.072 95\%, CI 1.005-1.143; \( p<0.05 \)) and family history of hypertension (Odds ratio 43.155 95\%, CI 6.577-283.28; \( p<0.01 \)) were observed as predictors of hypertension. The present data indicate that family history of hypertension and diastolic blood pressure are predictors of hypertension in the Mala population.