Impact of Hypertension on Morpho-physiological Traits in Rural and Urban Jat Females of Haryana, North India

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ABSTRACT The aim of the present cross-sectional study was to assess the impact of hypertension on morpho-physiological traits in rural and urban Jat females of Haryana (North India). For this 300 rural (normotensive=230, hypertensive=70) and 300 urban (normotensive=213, hypertensive= 87) females in the age range of 40 to 70 years were studied for nine morphological (anthropometric) and four physiological traits. Comparison revealed that rural normotensive females were taller and heavier than hypertensive females, whereas among urban subjects, normotensive females were taller and significantly (p<0.05) lighter than hypertensive females. All the five skinfold thicknesses at biceps, triceps, supra-iliac, subscapular and calf showed greater values among normotensive females than hypertensive females in both the rural and urban subjects. Rural and urban Jat females demonstrated higher haemoglobin concentration and manual strength among normotensives as compared to hypertensive subjects. Pulse rate of hypertensive females was significantly (p<0.001) higher than normotensives in both the rural as well as urban groups of Jat females. Binary logistic regression analysis of urban Jat females suggested that BMI (OR=5.06, CI=1.15-22.18), waist circumference (OR=2.89, CI=0.83-10.10) and pulse rate (OR=1.17, CI=1.11-1.24) were important predictors of hypertension, whereas for rural Jat females important determinants of hypertension were BMI (OR=1.26, CI=0.44-3.59) and pulse rate (OR=1.15, CI=1.08-1.22).