

Blood pressure status in Hangzhou region

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Background – Mortality of coronary heart disease is lower, but the hemorrhagic stroke is higher in China compared with Western nations. Elevated blood pressure (BP) has been claimed to be the major contributor to hemorrhagic stroke in China (1).

Objective – To investigate the BP status, and the relationship between BP and parameters of biochemistry and haematology in Hangzhou populations, China.

Design – For this cross-sectional study, 186 male (56 ± 14 yrs) and 85 female (55 ± 11 yrs) free-living subjects were recruited from Hangzhou, China. BP and other physiological parameters were measured. Each subject gave fasting blood, urine and faeces samples, from which parameters of biochemistry and haematology were measured by standard methods.

Results – 32% of males and 27% of females had a systolic BP ≥ 140 mmHg, 18% males and 13 females had a diastolic BP ≥ 90 mmHg, however there was no significant difference between the male and female % for both high systolic (≥ 140 mmHg) and diastolic BP (≥ 90 mmHg) (χ^2 test). Both systolic and diastolic BP were significantly positively correlated with age ($P < 0.0001$), serum concentrations of total protein ($P < 0.01$), uric acid ($P < 0.05$), total cholesterol, LDL-C and triacylglycerol ($P < 0.05$) for both genders, BMI for males and creatine for females ($P < 0.01$). Systolic BP was significantly positively correlated with serum creatine for males ($P < 0.05$).

Conclusions – The results from the present study indicated that 30% of subjects have high blood pressure. Positive relationships between BP and plasma total cholesterol, LDL-C, triacylglycerol and BMI are consistent with the results from the Western countries.

1. http://www.who.int/cardiovascular_diseases/en/