

GW23-e2237

PREVALENCE OF HYPERHOMOCYSTEINEMIA AND ITS MAJOR DETERMINANTS IN RURAL CHINESE HYPERTENSIVE PATIENTS

doi:10.1136/heartjnl-2012-302920a.230

Lixiaoying Wangyu. PLA General Hospital

Objectives To investigate the prevalence of hyperhomocysteinemia and its major determinants in rural Chinese hypertensive patients.

Methods A community-based cross-sectional study.

Results A high percentage of the study subjects had hyperhomocysteinemia (51.7%) with men (65.8%) higher than women (42.8%). The frequency of the CT and TT genotypes of the MTHFR C677T polymorphism were 50.2%, and 26.4%, respectively. In multivariate logistic analysis, there was an increased risk of hyperhomocysteinemia in subjects with older age (55–64 years: OR 1.69, 95% CI 1.44 to 2.00; 65 to 75 years: 3.01 2.70 to 3.35); MTHFR C677T polymorphism (in men: CT 1.44, 1.25–1.65, TT: 4.96, 4.14–5.94; in women: CT 1.20, 1.07–1.35, TT 3.80, 3.33–4.34); abdominal obesity (1.15, 1.07–1.25); antihypertensive treatment (1.17, 1.08–1.26); and inland residence (1.14, 1.05–1.24). However, a lower risk of hyperhomocysteinemia was associated with physical activity.

Conclusions We found a high prevalence of hyperhomocysteinemia and TT genotypes of the MTHFR C677T polymorphism in rural Chinese hypertensive patients. Besides controlling for hypertension, interventions should take homocysteine-lowering therapy into consideration, including folic acid supplementation and increased physical activity.