

# **The relationship of plasma homocysteine and nutrition factors in acute stroke patients**

邱弘毅

Huang SY;Chen CI;Chiou HY;Weng PY;Liu PY and Hong CT

## **Abstract**

The incidence and prevalence of cardiovascular and cerebrovascular diseases have increased in Taiwan. In recent years, epidemiological and clinical studies have found that higher plasma homocysteine (Hcy) and lower plasma vitamin B12, folic acid, and vitamin B6 represent independent risk factors for atherosclerotic vascular disease. Consequently, nutrition status is highly correlated with the occurrence of atherosclerotic vascular disease. The specific aim of this study was to elucidate the association of nutrition status, plasma homocysteine, and vitamins, with the risk of carotid atherosclerosis among elderly people. In total, 155 inpatients from Wang-Fang hospital and 153 age and sex-matched healthy community dwelling controls aged from 45 to 80 years were recruited as study subjects. Fasting venous blood from all subjects was examined for basic biochemical parameters including glucose, total protein, globulin, albumin, creatinine, AST, and ALT in serum. The lipid profile including total cholesterol, high-density lipoprotein cholesterol (HDL-C), low-density lipoprotein cholesterol (LDL-C), and triglyceride was also examined. Plasma Hcy, vitamin B12, folic acid, and vitamin B6 were determined. Carotid intimal-media wall thickness (IMT), a marker of atherosclerosis, was also evaluated in all. There were no significant differences in plasma homocysteine levels between patients and healthy controls. A significant inverse correlation between plasma vitamin B12 and homocysteine was observed. In addition, the level of plasma vitamin B12 of patients was higher than that of healthy controls.