

[gw22-e0066]

STUDY ON CORRELATION BETWEEN EGFR AND ATHEROSCLEROSIS IN PATIENTS WITH NON-DIALYSIS CHRONIC KIDNEY DISEASE

Pengli Zhu,¹ Tailin Guo,¹ Huizhen Yu,¹ Fan Lin,¹ Fuyuan Hong,² Li Zhang² ¹Fujian Provincial Hospital, Provincial Clinical College, Fujian Medical University, Fujian Institute of Clinical Geriatrics, Fuzhou, China; ²Department of Nephrology, Fujian Provincial Hospital, Fuzhou, China

10.1136/heartjnl-2011-300867.710

Objective To explore the relationship between ankle-brachial index (ABI) and atherosclerosis in patients with non-dialysis chronic kidney disease (CKD).

Method As a cross-sectional study, 118 patients with diagnosis of non-dialysis CKD (stage 1–5) were selected in our hospital from October 2008 to October 2009. Clinical data were recorded, including sex, age, height, weight, smoking status, blood pressure (BP), fasting glucose, high-density lipoprotein cholesterol (HDL-C), low-density lipoprotein cholesterol (LDL-C) and renal function. eGFR was calculated by modification of diet in renal disease study equation. ABI values were determined with a Doppler prober. ANOVA, bivariate correlation analysis and multiple linear regression were used for statistical analysis.

Results According to eGFR, all patients were divided into five groups as CKD stage 1 group to CKD stage 5 group. There were significant differences in ABI value between five groups ($F=28.123$, $p<0.01$). Compared with CKD stage 1 group, ABI values were significantly decreased in CKD stage 3 group, stage 4 group and stage 5 group (all $p<0.01$). There was no difference between CKD stage 1 group and stage 2 group ($p>0.05$). ABI value was significantly decreased with gradual decline of eGFR level ($p<0.01$). Multiple regression analysis showed that age ($p<0.01$), diabetes ($p<0.01$), hypertension ($p<0.01$) and CKD stage ($p<0.01$) were risk factors for the ABI value.

Conclusion Renal dysfunction is an independent risk factor for atherosclerosis. Decline of eGFR was closely related with the degree of atherosclerotic lesions. ABI can be used as important clinical indicators of atherosclerosis in patients with CKD.