ASSOCIATION BETWEEN ESTIMATED GLOMERULAR FILTRATION RATE AND ANKLE BRACHIAL INDEX

Wang Qing, Zhang Hongbo  Fuxing Hospital Affiliated to Capital Medical University/ Geriatrics, Beijing, China

10.1136/heartjnl-2011-300867.679

Obstructive Chronic kidney disease (CKD) is strongly associated with cardiovascular disease (CVD) events and mortality. The prevalence of reduced glomerular filtration rate (eGFR) and a low ABI increase with aging. Thus, we assessed the association between eGFR and ABI in geriatric inpatients.

Methods A total of 612 consecutive patients aged 60 years or over were included in this cross-sectional study. Cardiovascular risk factors, CVD history, eGFR and ABI were assessed in all participants. eGFR was calculated using the modification of diet in renal disease equation and categorised as normal (≥90 ml/min/1.73 m²), mild decrease (60 to 89 ml/min/1.73 m²), mild decrease (60 to 89 ml/min/1.73 m²), mild decrease (60 to 89 ml/min/1.73 m²), and severe decrease (<50 ml/min/1.73 m²). PAD was defined by ABI <0.9.

Results Among 612 geriatric inpatients, 24.0% had PAD. ABI were significantly low in patients with moderately and severely decreased eGFR compared to those with normal and mildly decreased eGFR. The worse grade of deterioration of eGFR, the higher prevalence of PAD. There was a significant positive correlation between eGFR and ABI (r=0.261, p=0.000). In models adjusted for age, sex, hypertension, diabetes, smoking, body mass index, low-density lipoprotein cholesterol, high-density lipoprotein cholesterol, and C-reactive protein, moderately and severely decreased eGFR were associated with PAD (odd risk (OR) 2.19; 95% CI 1.03 to 4.65; p<0.001, OR 6.36; 95% CI 1.96 to 20.72, respectively).

Conclusions In geriatric patients, reduced GFR levels are associated with low ABI levels. Patients with reduced eGFR are at increased risk for incident PAD.