P-198

Association of Age and Chronic Kidney Disease with Prognosis of Myocardial Infarction

Joon Seok Choi, Min Jee Kim, Yong Un Kang, Chang Seong Kim
Eun Hui Bae, Seong Kwon Ma, Soo Wan Kim

Department of Internal Medicine Chonnam National University Medical School

Background and objectives: Chronic kidney disease (CKD) is a well-known poor prognostic factor in myocardial infarction (MI). We evaluated the prognostic significance of CKD, particularly in association with increasing age, in MI patients. Design, setting, participants, and measurements: This study was based on a retrospective cohort, the Korean Acute Myocardial Infarction Registry. Patients with a discharge diagnosis of MI were analyzed to investigate the association of CKD with mortality risk according to age. A total of 11,268 patients (mean age, 63.0±12.6 years) were included and followed for 1 year.

Results: In the full cohort, 26% of patients had CKD (n=2929). The prevalence of CKD was higher with advancing age. Eight hundred sixty-one (7.6%) patients died and the interaction for 1-year mortality between age strata and estimated glomerular filtration rate (eGFR) strata was significant ($p<0.001$). Within each age category, the absolute 1-year mortality was higher in patients with a low eGFR. However, the adjusted relative mortality risk for a low eGFR was lower with increasing age (adjusted hazard ratio for 1-year mortality at eGFR <30 mL/min/1.73m^2: 4.84 [1.93-12.15], 4.53 [2.42-8.47], 3.51 [2.42-5.09], 3.30 [2.41-4.52] for patients aged <55, 55-65, 65-75, and ≥75 years; compared with those with eGFR ≥60ml/min/1.73m^2, respectively).

Conclusions: For all age categories, the overall mortality was significantly higher as eGFR declined. The association of a lower eGFR with mortality was weaker with increasing age, indicating that the prognostic significance of CKD in MI patients is age-dependent.

Key Words: Age, CKD, AMI
Age, Chronic kidney disease, Myocardial infarction