Comparative prognostic value of low-density lipoprotein cholesterol and C-reactive protein in patients with stable coronary artery disease treated with percutaneous coronary intervention and chronic statin therapy.

BACKGROUND: The comparative prognostic value of low density lipoprotein-cholesterol (LDL-C) and C-reactive protein (CRP) in patients with stable coronary artery disease (CAD) treated with percutaneous coronary intervention (PCI) and statin therapy is poorly investigated.

METHODS: The study included 7595 patients with stable CAD treated with PCI. Based on a cut-off of 100mg/dl for LDL-C and 3mg/L for CRP, patients were divided into 4 groups: patients with LDL-C<100mg/dl and CRP<3mg/L (n=1296); and patients with LDL-C>100mg/dl and CRP>3mg/L (n=1413). Statins at discharge were prescribed in all patients. The primary outcome was 1-year all-cause mortality. RESULTS: One-year mortality was 2.1% (160 deaths): 1.2% (33 deaths) among patients with LDL-C<100mg/dl and CRP<3mg/L and 2.9% (39 deaths) among patients with LDL-C>100mg/dl and CRP>3mg/L (P<0.001). After adjustment, CRP (hazard ratio [HR]=1.64, 95% confidence interval [CI] 1.33-2.02, for 1 standard deviation increase in the logarithmic scale) but not LDL-C (HR=1.03 [0.90-1.17], for 30mg/dl increase) showed an independent association with 1-year mortality. CRP (P=0.045) but not LDL-C (P=0.294) increased the
discriminatory power of multivariable model for prediction of mortality. CONCLUSION: In patients with stable CAD treated with PCI and statin therapy, CRP but not LDL-C was independently associated with increased risk of 1-year mortality.