Comparative prognostic value of C-reactive protein and fibrinogen in patients with coronary artery disease.

Abstract:
The comparative prognostic value of C-reactive protein (CRP) and fibrinogen for cardiovascular events has been inconclusively investigated. To this study was carried out to compare the prognostic value of CRP versus fibrinogen in patients with coronary artery disease (CAD). The study included 13,100 patients with coronary angiography-confirmed CAD. Plasma CRP and fibrinogen levels were measured before angiography in all patients. The levels of CRP > 3 mg/l and fibrinogen > 350 mg/dl were considered as elevated. The primary outcome was 1-year all-cause mortality. Patients were divided into four groups: patients with CRP > 350 mg/dl (n=3132); patients with CRP > 3 mg/l and fibrinogen > 3 mg/l and patients with fibrinogen > 350 mg/dl (n=4489). There were 634 deaths: 75 deaths in patients with CRP > 350 mg/dl, 87 deaths in patients with CRP > 3 mg/l and fibrinogen > 3 mg/l and fibrinogen > 350 mg/dl (Kaplan-Meier estimates of all-cause mortality, 1.8, 3.0, 7.0 and 8.7 %, log-rank test P<0.001). The multivariate analysis showed that CRP [adjusted hazard ratio (HR)=1.31, 95% confidence interval (CI) 1.18-1.45, for each standard deviation increase in the logarithmic scale] but not fibrinogen [adjusted HR=0.99 (0.90-1.09), for each standard deviation increase in the logarithmic scale] was an independent correlate of mortality. The
findings indicated that in patients with CAD, CRP was a better predictor of mortality than fibrinogen and offered prognostic information beyond that provided by the conventional cardiovascular risk factors.