ST-segment resolution after primary percutaneous coronary intervention in patients with acute ST-segment elevation myocardial infarction.

Abstract:
The association between ST-segment resolution and clinical outcome in patients with acute ST-segment elevation myocardial infarction (STEMI) after primary percutaneous coronary intervention (PPCI) remains unclear. Recent studies on the association between ST-segment resolution and mortality have given conflicting results. We undertook this study to assess whether ST-segment resolution in electrocardiograms recorded 90-120 min after initiation of PPCI predicts long-term mortality in patients with STEMI. The study included 900 patients with STEMI presenting within the first 24 h after symptom onset who were treated with PPCI. The ST-segment resolution was assessed in electrocardiograms recorded 90-120 min after the first balloon inflation. The ST-segment resolution was dichotomized as follows: 70% (complete resolution). The primary endpoint was five-year mortality. ST-segment resolution was 70% in 281 (31.0%) patients. There were 62 deaths during the follow-up. In patients with ST-segment resolution 70%, the Kaplan-Meier estimates of mortality were 8.3% (n = 17 deaths), 11.5% (n = 29 deaths) and 6.8% (n = 16 deaths), respectively; unadjusted hazard ratio (HR) = 0.88, 95% confidence interval (CI) 0.46-1.67, p = 0.695 for ST-segment resolution vs 70% vs ST-segment resolution vs 30%. In patients with STEMI undergoing PPCI, ST-segment resolution in electrocardiograms...
recorded 90-120 min after initiation of PPCI did not predict long-term mortality.