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Acute Coronary Syndromes

EXTENT, LOCATION, AND CLINICAL SIGNIFICANCE OF NON-INFARCT RELATED CORONARY ARTERY DISEASE AMONG PATIENTS WITH ST-ELEVATION MYOCARDIAL INFARCTION

Poster Contributions
Hall C
Sunday, March 30, 2014, 9:45 a.m.-10:30 a.m.

Session Title: Acute Coronary Syndromes: STEMI
Abstract Category: 1. Acute Coronary Syndromes: Clinical
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Background: Little information exists about the anatomic characteristics and clinical relevance of non-infarct related artery (IRA) disease in acute ST-segment elevation myocardial infarction (STEMI).

Methods: Patients were pooled from 8 independent, international, randomized STEMI clinical trials. Among the 68,765 STEMI patients enrolled in the trials, 28,282 patients with valid angiographic information were included in this analysis.

Results: Overall, 52.8% (14,929 patients) had obstructive non-IRA disease; 29.6% had 1-vessel and 18.8% had 2-vessel non-IRA disease. There was no substantial difference in extent of non-IRA disease according to the IRA territory. Approximately one-third of the patients had obstructive disease in each non-IRA territory as opposed to the IRA territories and this pattern was consistent regardless of the IRA location (Figure). Thirty-day mortality was higher in patients with non-IRA disease than in those without (4.3% vs. 1.7%). After multivariable adjustment, the presence of non-IRA disease was significantly associated with an increase of 30-day mortality (adjusted hazard ratio, 1.79; 95% CI, 1.51 - 2.13).

Conclusions: More than half of the patients with STEMI had obstructive non-IRA disease, which was significantly associated with increased 30-day mortality. These findings highlight the need for further research aimed at informing the appropriateness and timing of non-IRA revascularization in patients with STEMI.