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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

Presentation Number: 1190-246

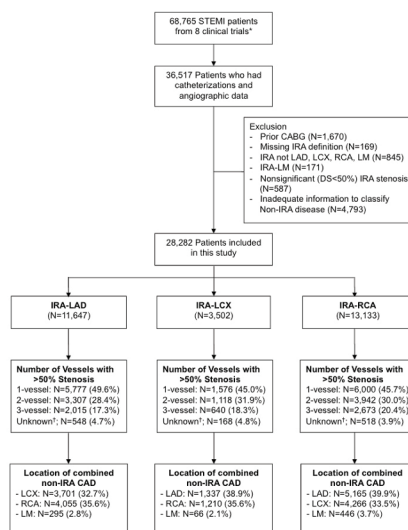
Authors: *Duk-Woo Park, Robert Clare, Phillip Schulte, Karen Pieper, Robert Califf, Erik Ohman, Frans Van de Werf, Robert Harrington, Paul Armstrong, Christopher Granger, Manesh Patel, Duke Clinical Research Institute, Durham, NC, USA*

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.



*Data were derived from the merged datasets of GUSTO I, GUSTO IIb, GUSTO III, IMPACT-AMI, GUSTO V, INTEGRITI, CASTEMI, and APEX-AMI trial.
 †Unknown: patients having obstructive non-IRA disease in one territory, but indeterminate information on the remaining non-IRA territory (i.e., can be to have total 2-vessel or 3-vessel disease).