18.2 - Epidemiology, Prognosis, Outcome

Prognosis of patients with left circumflex artery acute myocardial infarction in relation to ST-segment on admission electrocardiogram

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Background. Total thrombotic occlusion of the LCX may present without ST-segment elevations.

Objective. To examine the difference in clinical outcomes between patients with acute MI due to LCX occlusion or stenosis with and without ST-segment elevation.

Methods. The present study is a dual center, observational, retrospective cohort study comprising all patients admitted to between 2009 and 2019 with LCX-related.

Results. A total of 897 patients with LCX-related MI were included. Most (56.6%) presented with NSTEMI, which was associated with higher rates of 1-year hospitalization for ACS (15.8% vs 11.1%; P=.05) and PCI (20.9% vs 14.4%; P=.05). STEMI was associated with higher 30-day mortality compared with NSTEMI (3.9% vs 1.7%, P=.05), with no difference in 1-year mortality (6.7% vs 5.6%, P=.55). Multivariate analysis found left dominant circulation (odds ratio [OR], 2.62; 95% confidence interval [CI], 1.4-4.7) and diabetes mellitus (OR, 2.13; 95% CI, 1.2-3.6) to be independent predictors of 1-year mortality.

Conclusion. Patients suffering from NSTEMI and STEMI related to LCX occlusion or stenosis have similar 1-year mortality. Left dominance was associated with higher short- and long-term mortality. These results suggest that a substantial population of patients who present as NSTEMI should be treated promptly and aggressively as STEMI patients.