

ORIGINAL ARTICLE

TIMI risk score underestimates prognosis in unstable angina/non-ST segment elevation myocardial infarction

ANNE VORLAT¹, MARC J. CLAEYS¹, HERBERT DE RAEDT², SOFIE GEVAERT³, YVES VANDEKERCKHOVE⁴, PHILIPPE DUBOIS⁵, ANTOINE DE MEESTER⁶ & CHRISTIAAN VRINTS¹

¹University Hospital Antwerp, Belgium, ²OLV Ziekenhuis Aalst, Belgium, ³University Hospital Ghent, Belgium, ⁴AZ St Jan, Brugge, Belgium, ⁵CHU Charleroi, Belgium, and ⁶Jolimont, Belgium

Abstract

Objectives: To determine the value of the TIMI risk score in the individual risk stratification of patients with unstable angina/ non-ST segment elevation myocardial infarction (UA/NSTEMI). Background: TIMI risk score is a validated tool to identify groups of patients at high risk for major cardiac events. Its prognostic value in individual patients with current diagnostic tools and therapy is unknown. Methods: TIMI risk score was assessed in patients with UA/NSTEMI admitted to six Belgian hospitals and related to clinical outcome at 30 days. Results: Of the 500 patients enrolled, 49.4% were placed in the low TIMI risk group (score=0-3) and 50.6% in the high-risk group (score=4-7). Multivariate analysis identified raised cardiac markers and invasive strategy, but not high TIMI risk score as independent predictors of death and new myocardial infarction (MI). Moreover, the incidence of death and MI in the low TIMI risk group with positive cardiac markers was not lower than in the high TIMI risk group with positive markers: 15.1% versus 17.8% (P=0.7). Conclusions: TIMI risk score is of limited value for individual risk stratification. The presence of positive cardiac markers (troponin) appears to be a more powerful prognostic marker.

Key Words: Myocardial infarction, mortality, biomarkers, TIMI risk score