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Original Article

Factors Affecting in-Hospital Mortality of Acute Myocardial Infarction

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Abstract:

Background: Acute myocardial infarction (AMI) is one of the most common causes of morbidity and mortality. Considering immense socioeconomic damages of growing AMI in developing countries we estimated prognostic value of major risk factors of AMI to predict probable In-hospital AMI mortality.

Methods: In a cohort survey from June 2004 to March 2006, 1798 patients hospitalized with proven AMI entered into two groups: Survived (patients discharged alive) and Expired (patients expired during hospitalization due to AMI). We evaluated relationship of 17 risk factors including age, sex, smoking, opium usage, hypertension, diabetes mellitus (DM), dyslipidemia, Killip class, existence of Q wave, ST segment elevation, bundle branch blocks (BBB), involved surface of heart, mean left ventricular ejection fraction (LVEF), mitral valve regurgitation (MR), and serum level of Troponin I and CKMB, with patients' survival and expiry by using chi square test, T test and multivariate logistic regression analysis. P value ≤ 0.05 was considered significant.

Results: There were 1629 (90.6%) survived and 169 (9.4%) expired patients. Factors significantly affected in-hospital mortality of AMI include: age ($P < 0.001$), femaleness ($P < 0.001$), smoking ($P < 0.001$), Killip class $> II$ ($P < 0.001$), hypertension ($P = 0.036$), DM ($P < 0.001$), bundle branch block ($P < 0.001$), Moderate to severe mitral regurgitation ($P < 0.001$), lower Mean LVEF ($P < 0.001$), and lower mean serum concentration of CKMB and Troponin I ($P < 0.001$). Mortality was significantly higher in anterolateral infarction.

Conclusion: Mean age > 69.01 yr, femaleness, Killip class III & V, hypertension, DM, moderate to severe MR, anterolateral AMI, bundle branch block and higher serum concentration of CKMB & Troponin I are associated with higher In-hospital post-AMI mortality.

Keywords:

[Acute myocardial infarction](#) . [Prognosis](#) . [In-Hospital mortality](#)

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