

The Combination of the Killip and TIMI Classifications for Early Risk Stratification of Patients with Acute Myocardial Infarction

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Background: The Killip classification as well as the TIMI score has been proved to be useful methods for early risk stratification of patients with acute myocardial infarction. The Killip classification is simpler and last time consuming compare to the TIMI score. The purpose of the following study was to evaluate the added value of applying the TIMI score to patients pre-stratify by the Killip classification.

Methods and results: One thousand seven hundred and seventy three (1773) consecutive acute myocardial infarction patients were hospitalized in twenty-five coronary care units operating in Israel, and were followed up for 1 year.

Higher Killip class was found to be associated with increased 1-year mortality: 6%, 24%, 42% and 60% in Killip 1 to 4 respectively. Applying the TIMI score to Killip 1 patients resulted in farther stratifying the patients to low, medium and high risk patient groups when stepping up from TIMI ≤ 2 , TIMI 3-5 and TIMI ≥ 6 : 1%, 8% and 19% at 1-year. Applying the TIMI score to Killip ≥ 2 patients did not result in further stratify them and did not share the same clinical relevance as for Killip 1 patients.

Conclusions: Killip classification is a useful method for early risk stratification of acute myocardial infarction patients. Applying the TIMI score to patient with Killip 1 is beneficial.