A NOVEL RISK SCORE FOR PERCUTANEOUS CORONARY INTERVENTION OUTCOME ASSESSMENT: WEIGHING THE IMPORTANCE OF COMPLICATIONS AFTER PROCEDURE

i2 Poster Contributions
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Background: Previously validated risk scores to predict the long-term outcomes of patients undergoing percutaneous coronary intervention (PCI) have traditionally not included post-procedural complications. Several post-PCI complications, however, have been strongly associated with poor long-term prognosis. We sought to build and validate a risk score, including baseline characteristics and post-procedural complications for patients undergoing PCI.

Methods: We analyzed consecutive patients who underwent PCI from 2000-2005. Patients presenting with cardiogenic shock were excluded. We used logistic regression and bootstrap methods to build an integer risk score for estimating the risk of death and myocardial infarction (MI) at 1-year after PCI, using baseline, angiographic and procedural characteristics; and post-procedural complications. We validated the risk score in a set of patients who underwent PCI during 2006-2007.

Results: Among 8564 procedures 7 variables were significantly correlated with the outcome: older age, history of diabetes, chronic renal failure, congestive heart failure, left main disease, lower baseline hematocrit, greater hematocrit drop after PCI, and TIMI flow rate < 3 after PCI. In the validation population (n=2565), the average receiver operating characteristic curve area was 0.813 (SD ± 0.018) (Figure).

Conclusions: We developed and validated a simple integer risk score, including post-procedural variables, that predict long-term results after PCI.