View metadata, citation and similar papers at core.ac.uk

brought to you by CORE

provided by Elsevier - Publisher Connector

A210.E1982
JACC March 9, 2010
Volume 55, issue 10A

i2 SUMMIT

VALIDATION OF A RISK SCORE TO PREDICT CONTRAST-INDUCED ACUTE KIDNEY INJURY AFTER PERCUTANEOUS CORONARY INTERVENTION IN PATIENTS WITH ACS: RESULTS FROM THE ACUITY TRIAL

i2 Poster Contributions
Georgia World Congress Center, Hall B5
Monday, March 15, 2010, 3:30 p.m.-4:30 p.m.

Session Title: Pharmacotherapies and Complex Patients
Abstract Category: PCI - Renal Insufficiency
Presentation Number: 2504-506

Authors: *Adriano M. Caixeta, Eugenia Nikolsky, Selene Leon, Martin Fahy, Ecaterina Cristea, Gregg W. Stone, Alexandra J. Lansky, and Roxana Mehran, Columbia University Medical Center and The Cardiovascular Research Foundation, New York, NY*

Background: Contrast induced acute kidney injury (CI-AKI) is an important complication of PCI. To assess reliably risk of CI-AKI, a previous simple risk score has been proposed that may be quickly calculated based on the readily available information. Whether this risk score is accurate in external datasets is not known.

Methods: CI-AKI risk score was previously developed on 5,571 pts treated with PCI from a database of a tertiary referral center. Multivariable logistic regression identified 8 independent predictors of CIN with p-value <0.0001; based on the odds ratio each risk factor was assigned a weighed integer; the sum of the integers was a total risk score for each pt. The database from the randomized ACUITY trial was used to validate this CI-AKI risk score. The same clinical and laboratory data were available for analysis, with the exception of information on hypotension and congestive heart failure. The predictive accuracy of the scoring system was examined by calculating Cochran Armitage test.

Results: In ACUITY, among 6,731 PCI pts with serial serum creatinine (sCr) measurements, CI-AKI (increase ≥25% and/or ≥0.5mg/dl in sCr at 48 hours post-PCI compared to baseline) developed in 783 pts (11.6%). The rate of CI-AKI increased (Figure) with increasing risk score (Cochran Armitage p<0.0001).

Conclusion: The CI-AKI scoring system for risk stratification of pts undergoing PCI demonstrated good discriminating ability in external database of pts with ACS undergoing early invasive strategy.