

51st CARDIOCON 2022: ABSTRACT**TIMI RISK INDEX, A SIMPLE TOOL IN EMERGENCY PERCUTANEOUS REVASCULARIZATION FOR THE PREDICTION OF CONTRAST INDUCED NEPHROPATHY****Ali Bin Naseer¹, Rajesh Kumar¹, Jawaid Akbar Sial¹, Musa Karim¹**¹National Institute of Cardiovascular Diseases, Karachi, Pakistan

Objectives: Contrast induced nephropathy (CIN) is a common complication seen after primary percutaneous coronary intervention (PCI) which can contribute to increased morbidity and mortality in patients of acute ST elevation myocardial infarction (STEMI). Aim of this study was to validate the TIMI Risk Index (TRI) for the risk stratification of CIN in patients undergone primary PCI.

Methodology: A total of 507 consecutive patients of STEMI undergone primary PCI at a tertiary care cardiac center were included for this study. Patients in Killip class IV at presentation, patients with history of any PCI and chronic kidney diseases were excluded from this study. TRI was calculated using the formula “heart rate $\left(\frac{Age}{10}\right)^2$ systolic blood pressure” and post-procedure serum creatinine level increase of either 25% or 0.5 mg/dL was taken as CIN.

Results: A total of 507 patients were included in this study out of which 82.2% were males and 17.8% were females. In total 8.7% (44) patients developed CIN. In the receiver operating characteristic (ROC) curve analysis, area under the curve (AUC) for TRI was found to be 0.717, [0.649 to 0.758] for the prediction of CIN. Sensitive, specificity, positive predictive value and negative predictive value of TRI>22.8 to predict the development of CIN were 59.09%, 76.69%, 19.55% and 95.19% respectively.

Conclusion: In conclusion, our study has consolidated the findings of previous studies using TIMI risk index in STEMI patients undergoing primary PCI and has established that this easy to calculate and readily accessible score has good accuracy to evaluate the risk of CIN in primary PCI setting and could be of great help to take any pre-emptive strategies in those identified at high risk of post-procedure CIN.

Keywords: Acute heart failure, acute myocardial infarction, respiratory infections, influenza, urinary infections, gastrointestinal infections, infections

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Corresponding Author: Ali Bin Naseer, National Institute of Cardiovascular Diseases, Karachi, Pakistan.