PRESTO SCORE: SIMPLE SCORE FOR EARLY DISCHARGE OF PATIENTS WITH ST-ELEVATION MYOCARDIAL INFARCTION TREATED WITH PRIMARY PERCUTANEOUS CORONARY ANGIOPLASTY

Alejandro Avila Carrillo
University clinical hospital of Santiago, Spain

Background: Early Discharge (ED) for low-risk patients treated with primary coronary angioplasty is safe and cost-effective. Scoring systems for ED are sophisticated and time-consuming for daily use.

Methods: We developed a score to identify low-risk patients suitable for ED; 10 points was the cutoff. Sensitivity and specificity were calculated. A survival analysis was performed comparing the results versus the GRACE score.

Results: Based on the PRESTO score, we classified 1723 patients, 43.23% were in the low-risk group (<10) getting a lower cumulative incidence of major adverse cardiovascular events (MACE) and all-cause death than patients with high-risk (≥10). The estimated hazard ratio for MACE was (HR) 11.73 (95% confidence interval [95% CI] 3.64-37.77, \( p = <0.001 \)) and for all-cause death HR 36.77 (95% CI 5.07-266.67, \( p = <0.001 \)) in the low-risk group at 7 days of follow-up. PRESTO score got a sensitivity (SE) of 90.2% and a specificity (SP) of 45.9% for predicting MACE with an area under ROC curve (AUC) of 0.68. The AUC for predicting all-cause death was 0.71 (SE of 98.0% and SP of 45.7%). There were significant differences in favor to our score for predicting all-cause death (\( p = 0.005 \) to 7 days, \( p = <0.001 \) to 30 days, \( p = <0.001 \) to 90 days) and without difference for predicting MACE.

Conclusions: The PRESTO score is a simple and accurate tool for identifying low-risk patients for early discharge after primary angioplasty, with a better prediction of all-cause death compared to the GRACE score.

BIOGRAPHY

Alejandro Avila Carrillo completed his medical degree at the age of 24 years from the University of Guadalajara, Mexico. After he completed his cardiology fellowship at Hospital de Especialidades “Antonio Fraga Mouret”, Mexico City, then completed his interventional cardiology fellowship at Hospital Clínico de Santiago de Compostela, in this fellowship he performed a clinical and basic investigation, involving interventional cardiology and biomaterials in interventional cardiology, even winning a grant to develop a new material for bioabsorbible coronary stent (today ongoing), also participated in a clinical project of clinical 3D printing, publishing a paper at Revista Española de Cardiología. Today he is attending physician at cardiology staff of Hospital de Especialidades “Antonio Fraga Mouret”, Mexico City and combine this with private medical activity.