

Abstract No. **18**

Category: **Prevention**

Title: **Thakar Score Validation in Patients Undergoing Cardiovascular Surgery in a Latin America Single Center**

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Abstract:

Background: Acute kidney injury (AKI) is one of the most serious complications after cardiac surgery and if the patient requires renal replacement therapy is associated with increased morbidity and mortality in both short- and long-term. Postoperative mortality rates in patient who develop AKI range from 21,8% to 64,3%. Accurate prediction of AKI provides an opportunity to develop strategies for early diagnosis and treatment. The aim of this study is to evaluate feasibility of Thakar score to predict dialysis-requiring AKI (AKI-D) in patients undergoing to cardiac surgery in a Latin America population.

Methods: We conducted a prospective cohort study which included 614 patients who underwent cardiac surgery between January 2017 to December 2018 in a Hospital in Bucaramanga-Colombia. Incidence and survival of AKI-D were established with their 95% confidence Interval (CI). The Kaplan-Meier survival curves according to risk categories and the predictive capacity of Thakar score was evaluated with area under the receiver operator characteristic curve (AUC-ROC).

Results: The incidence of AKI-D was 7%. The AUC-ROC for hospital AKI-D was 77,05% (95% CI 71,05 – 83,04) (Figure 1). The risk of developing AKI-D in patients who had Thakar score between 3-5, 6-8 and 9-13 points was OR=3,93 (95% CI 1,87-8,22), OR=9,42 (95% CI 3,68-24,15) and 15,71 (95% CI 2,62-94,28) compared to those who had 0-2 score for categorical variables respectively (Figure 2) and the OR was 1,47 for continuous variables. The median follow-up time was 8 days (Q1=6; Q3=12).

Conclusion: Thakar is an easy score to apply to all patients who undergo cardiac surgery and has a high performance allowing to predict risk of developing AKI-D in a Latin American population. The risk of developing AKI-D increases 47% with each point of increase in Thakar Score.