Reviewer’s report

Title: The Predictive Value of the Prognostic Nutritional Index for Postoperative Acute Kidney Injury in Patients Undergoing On-Pump Coronary Bypass Surgery

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Reviewer: Mattia Glauber

Reviewer’s report:

The Authors investigate the predictive value of the Prognostic Nutritional Index (PNI) for the occurrence of Acute Kidney Injury in patients undergoing On-Pump CABG. The PNI level was determined according the following formula: $10 \times \text{serum albumin (g/dL)} + 0.005 \times \text{total lymphocyte count per mm}^3$ proposed by Onodera et Al.

Preoperative PNI is a simple and useful marker to predict clinicopathological features and long-term survival outcome in patients with cancer.

It has been demonstrated that a low PNI affected surgical outcomes in hemodialysis-dependent patients undergoing cardiac surgery and was the most influential factor on length of stay for infants after cardiac surgery.

AKI is the most common clinically important complication in adult patients undergoing open heart surgery, and is associated with increased mortality and morbidity. The identification of risk factors for AKI is an important issue with the aim to prevent and treat this severe complication.

EuroScore, STS score, ACEF score have been studied with this purpose.

The Authors demonstrate that PNI might be a further easy tool for predicting postoperative AKI.

The hypothesis of the present study is original and striking.

Methods and Results are clearly and correctly described

Discussion and Conclusion are congruent with the data reported.

Suggestions

- The Limitations are correctly listed, but the first one ("information on intra- and postoperative hemodynamic conditions") is too important to be left without further clarification. It seems mandatory to complete these data.
- In the Literature, usually, a PNI cutoff value is reported. Did you try to find a cutoff value in your analysis?

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