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Reply to Letter to the Editor: "Mortality Risk Factors After Coronary Artery Bypass Grafting: The Tip of the Iceberg"

LETTER TO THE EDITOR
REPLY

To the Editor,

We would like to thank the authors[1] for their thoughtful review of our article entitled "Post-Coronary Artery Bypass: The Power of Prognostic Nutritional Index in Determining Mortality."[2] We appreciate their interest and would like to respond to the valuable points raised.

1. Regarding the use of STS and EuroSCORE II in mortality prediction:
While we fully acknowledge the established value of the STS and EuroSCORE II systems in cardiac surgery risk prediction, our study aimed to investigate the Prognostic Nutritional Index (PNI) as an independent and nutritionally focused marker of mortality. As highlighted in our discussion, traditional scoring systems do not include nutritional or inflammatory parameters—factors that have been increasingly recognized as critical determinants of surgical outcomes. The simplicity and accessibility of PNI offer an important advantage in routine clinical practice. However, we agree that integrating established scores with novel indices like PNI in future prospective models may provide a more comprehensive risk stratification strategy.

2. On the paradoxical finding regarding diabetes mellitus (DM):
We appreciate the concern raised regarding the lower incidence of DM among deceased patients. This observation, although statistically significant in univariate analysis, was adjusted for in the multivariate model, where DM still emerged as a mortality risk factor (odds ratio (OR) = 3.12, $P < .001$). The seeming paradox may reflect a complex interplay of factors, such as aggressive perioperative glycemic management in diabetic patients, preoperative optimization protocols, or survival bias. We have addressed this as a limitation and encourage further investigation with larger, stratified cohorts.

3. About the male gender being a mortality predictor:
We are aware that previous literature frequently reports higher early mortality in female patients undergoing coronary artery bypass grafting (CABG). However, in our cohort, male gender was independently associated with higher mortality risk (OR = 1.95, $P = .015$). This finding could be cohort-specific, potentially influenced by a higher baseline comorbidity burden in male patients, greater operative complexity, or postoperative inflammatory response. We emphasized the need for cautious interpretation and proposed future gender-focused analyses.

4. On albumin administration and red blood cell (RBC) transfusions:
We agree that perioperative albumin supplementation and RBC transfusions can significantly impact serum albumin levels and thus PNI calculations. However, due to the retrospective design and limitations in electronic medical record documentation, specific data on intraoperative albumin use and transfusion volume were not available. This was acknowledged as a limitation in our discussion. We concur that further studies incorporating detailed perioperative management variables are warranted to delineate these effects on PNI dynamics and outcomes.

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In conclusion, we thank the authors again for their insightful critique. Their comments align with our vision that PNI is not a replacement but a valuable addition to established risk models. We hope that future prospective, multicenter studies will help standardize the use of nutritional indices like PNI in routine CABG risk assessment.

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2. Toprak B, Bilgiç A. Post-coronary artery bypass: the power of prognostic nutritional index in determining mortality. *Anatol J Cardiol*. 2025;27(7):331-338. [CrossRef]