





## Comment on: “Comparison of C-reactive protein and C-reactive protein-to-albumin ratio in predicting mortality among geriatric coronavirus disease 2019 patients”

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Dear Editor,

We read with interest the article entitled “Comparison of C-reactive protein and C-reactive protein-to-albumin ratio in predicting mortality among geriatric coronavirus disease 2019 patients.”<sup>1</sup> A previous study explored the clinical relevance of the C-reactive protein-to-albumin (CRP/CAR) ratio for in-hospital mortality in patients with coronavirus disease 2019 (COVID-19)<sup>2</sup>. In this study, the findings revealed that both CRP and CRP/CAR ratio were effective in predicting mortality in elderly COVID-19 patients<sup>1</sup>. However, from our point of view, there are several issues that need to be addressed further in this investigation.

The authors solely gathered data on baseline characteristics and divided the study population depending on survival status. However, tables did not include certain key laboratory values, such as D-dimer and cardiac troponin. Previous investigations in COVID-19 patients indicated that D-dimer at admission, mean D-dimer of 5 days during index hospitalization, and D-dimer assessed on the third day of hospitalization were independently related to in-hospital mortality<sup>3,4</sup>. However, the authors of this study did not include data on D-dimer levels in these individuals. Higher cardiac troponin levels, in addition to elevated D-dimer levels, were found to be an independent predictor of in-hospital mortality in COVID-19 patients with and without coronary artery disease<sup>5</sup>. We suggest the authors should provide the cardiac troponin levels of the analyzed patients.

The authors only compared the area under the curve values of CRP and CAR in predicting in-hospital mortality among geriatric COVID-19 patients in this study, and they discovered no statistically significant difference in the pairwise comparison

of the receiver operating characteristic (ROC) curves among these patients. Both CRP and CRP/CAR ratio were shown to be effective in predicting death in elderly COVID-19 patients, as indicated in “Conclusion” section. However, the authors did not conduct any appropriate statistical analysis in order to draw such a conclusion. Both univariate and multivariate logistic regression analyses should be performed to evaluate if CRP and CRP/CAR were independent predictors of in-hospital mortality in geriatric COVID-19 patients. The authors may thus conclude that both CRP and CRP/CAR can be used to predict in-hospital mortality in elderly COVID-19 patients.

The authors of this study reported that they also investigated the association between patients’ comorbidities and mortality. It is commonly recognized that comorbidities tend to accumulate as people age. To determine whether comorbidities have an effect on in-hospital mortality in geriatric COVID-19 patients, the authors should estimate the Charlson Comorbidity Index, which is routinely used to predict mortality in elderly patients with a variety of comorbid diseases.

Despite the study’s main limitations, we would like to congratulate the authors for demonstrating that both CRP and CRP/CAR ratio were effective in predicting mortality in geriatric COVID-19 patients.

### AUTHORS’ CONTRIBUTIONS

**TC:** Conceptualization, Formal Analysis, Writing – original draft, Writing – review & editing. **MİH:** Writing – review & editing. **VÇ:** Writing – review & editing. **MS:** Writing – review & editing.

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