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

Xiaojing Wang[1] , Junna Li[1]*

Dear Editor,

We read with great interest a retrospective cohort study entitled "Comparison of C-reactive protein and C-reactive protein-to-albumin ratio in predicting mortality among geriatric coronavirus disease 2019 patients" by Rohat et al.[1], who investigated the value of C-reactive protein and C-reactive protein-to-albumin ratio in predicting mortality in geriatric coronavirus disease 2019 (COVID-19) patients. In this study involving 404 participants, the authors found that both serological indicators were important in predicting mortality in elderly COVID-19 patients. However, in our opinion, we have some concerns which need clarification.

First, a detailed elucidation of the cause responsible for the mortality is extremely necessary. Notably, the population of this study[1] was patients over the age of 65 years. In the vast majority of cases, mortality was caused by the underlying diseases (such as chronic obstructive pulmonary disease, coronary heart disease, or malignant tumor)[2,3], but not COVID-19. The existence of COVID-19 is likely to be a coincidence and not a major factor responsible for the mortality. Therefore, it is highly recommended to provide detailed information on patient's mortality.

Second, in Table 11, there were significant differences in baseline characteristics between survivor and nonsurvivor patients. Remarkably, the nonsurvivor patients were older (78 years vs. 75 years) and had a higher incidence of congestive heart failure (57.8 vs. 42.2%) and chronic renal failure (65.6 vs. 34.4%) compared with the survivor patients. Advanced age[4], congestive heart failure[5], and chronic renal failure[6] are all important factors leading to a significant increase in mortality. In particular, congestive heart failure and chronic renal failure are also common reasons in patients present to the emergency department. In this case, the abnormal C-reactive protein and C-reactive protein-to-albumin ratios are most likely due to congestive heart failure and chronic renal failure, but not COVID-19. Therefore, it is reasonable to assume that there is no definite correlation between the abnormal C-reactive protein-to-albumin ratio and COVID-19. From our perspective, one of the best solutions is to adjust potential confounding factors when ROC curve was calculated, in order to truly obtain the value of C-reactive protein and C-reactive protein-to-albumin ratio in predicting mortality in elderly COVID-19 patients.

AUTHORS' CONTRIBUTIONS

XW: Conceptualization, Writing – original draft. **JL:** Conceptualization, Writing – original draft.

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[1]Shiyan Maternal and Child Health Care Hospital – Hubei, China.
*Corresponding author: 18871959931@163.com