



Reply to “Predictors in major burn patients”

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DEAR EDITOR,

We thank Dr. Peng-Hui Wang and colleagues¹ for the thought-provoking comments¹ based on our original article titled “Albumin supplementation may have limited effects on prolonged hypoalbuminemia in major burn patients: An outcome and prognostic factor analysis.”²

The first issue is the timing of the data. Indeed, only if the ratio of C-reactive protein and albumin (CRP/Alb) was collected in the initial phase, can the data be interpreted as a predictor of mortality, and be applied in the clinical practice. There was no protocol of laboratory examination for major burn patient then, and therefore the timing of data varies. However, all of the patients in our cohort received the laboratory test at least within 24 hours after arrival (mainly in the coming morning). It is worth mentioning that 6 patients had two tests within 24 hours (once when admitted to burn unit, another in the next morning). Considering that serum CRP peaks around 48 hours,³ we chose to use the latter result in these patients.

The second issue is about whether the serum Alb or CRP level could be a predictor of mortality. When using the receiver operating characteristic (ROC) to assess the initial serum Alb or CRP level, the area under curve (AUC) were 0.620 and 0.654, respectively. In other words, neither factor held acceptable discrimination for predicting mortality.

Third, in Table 3, the serum Alb (day 7) represents the serum Alb level on day 7, while the serum Alb (week 1) represents the average serum Alb level in the first week. We mentioned too briefly in the second paragraph in the Results, and here, thanks to Wang and colleagues,¹ we have the opportunity to clarify the readers' confusion.

The change of CRP between day 1 and 7 do have an association with mortality ($p = 0.021$) in univariate analysis. However, patients who died within 7 days were not able to collect the data, and therefore may contain biases and may need further information and research before applying to clinical practice.

We appreciate Dr. Wang and colleagues¹ for their detailed and nuanced letter. Research with burn patients can be quite challenging due to low sample size issues. We welcome further comments and encourage others to partake in dialogue regarding treatments for major burn patients.

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Conflicts of interest: The authors declare that they have no conflicts of interest related to the subject matter or materials discussed in this article.

Journal of Chinese Medical Association. (2020) 83: 585.

Received February 24, 2020; accepted February 24, 2020.

doi: 10.1097/JCMA.0000000000000321.

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