

The Difficulty in Interpreting the Value of C-Reactive Protein in the Context of Acute Medicine



To the Editor:

I read with great interest the article by Eckart et al¹ entitled “Relationship of Nutritional Status, Inflammation, and Serum Albumin Levels During Acute Illness: A Prospective Study.” The result of this study suggests the possibility of predicting the outcomes of the patients with acute illness by nutritional status and inflammation. However, there is a concern about this study that should be pointed out: how can we interpret the value of C-reactive protein (CRP)?

In contrast to nutritional status and serum albumin levels, CRP values can fluctuate by the day. Blood samples in this study were collected in emergency departments.² Thus, the CRP values shown in this study may be those before elevation; concentrations of CRP have been known to reach their peak between 36 and 50 hours after the onset of infection.³

Besides, it seems complicated to assess whether high CRP values reflect acute inflammation or chronic inflammation. Increases in CRP values can represent various noninfectious diseases, such as cardiovascular diseases, cirrhosis,

graft vs host disease, systemic lupus erythematosus, and deep venous thrombosis.⁴

The difficulty in assessing the elevated CRP values seems to make it hard to apply the result of this study into clinical practice. Further research is needed to evaluate whether baseline CRP values are associated with patient outcomes.

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