LETTER TO THE EDITOR

Letter to the Editor Regarding Article, “High mobility group box 1 as a biomarker in critically ill patients”

Dear Editor,

We have read with interest the article by Yagmur et al¹ published in *Journal of Clinical Laboratory Analysis*, and thought that some issues should be addressed.

The authors stated that “In experimental models of sepsis, HMGB1 has been described as a late mediator of sepsis, and its blockade in murine sepsis models improved mortality.” And they marked this conclusion as a reference to an article in the *Journal of Science*, which Wang et al² published in 1999, entitled “HMG-1 as a Late Mediator of Endotoxin Lethality in Mice.”

After reading this article carefully and consulting some relevant literatures, we thought the description of Yagmur et al¹ may be not so accurate. According to Wang et al,² administration of anti-HMG-1 in two doses (one 30 min before LPS and one 12 hours after LPS) increased the survival rate of the mice to 30%. With three doses of antiserum (−30 min, + 12 hours, and +36 hours), 70% of the treated mice survived, as compared with 0% survival in controls ($P < 0.05$). It was indicated that anti-HMG-1 did delay the onset of LPS lethality and provided protection. Besides, Deng et al³ also cited this article from Wang et al² and their conclusions were consistent, suggesting that blocking HMGB1 could protect against lethal endotoxemia and bacterial sepsis. Moreover, in 2004, Wang et al⁴ published another article in the *Journal of Nature Medicine* entitled “Cholinergic agonists inhibit HMGB1 release and improve survival in experimental sepsis,” which was repeatedly pointed out and emphasized that HMGB1 blockade improves survival in experimental models of sepsis, but does not mention that it can improve mortality. In other words, the term “improves survival” emphasized by Wang et al⁴ should be interpreted as “increases survival” or “reduces mortality” rather than “improve mortality.” Moreover, “mortality” and “survival” are two opposite terms, so the term “improved mortality” described by Yagmur can easily be misinterpreted as “increased mortality” by other readers when HMGB1 is inhibited.

In the absence of the modest clinical effect of neutralizing inflammatory factors (TNF- α , IL-1 β) in patients with septic shock, HMGB1 is expected to be a potential new target for the treatment of sepsis.⁴

Therefore, in order to not mislead readers and improve the quality of the article to make it more readable, we suggest that Yagmur

et al¹ change the term “improved mortality” to “improved survival” or “reduced mortality,” which might be more accurate and more conducive to other scholars to grasp the author’s original intention.

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