LETTER TO THE EDITOR

Author Response to the Manuscript "Inflammation and Hemorrhagic Stroke Outcomes: Other Players in the Nexus"

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Author Response/Reply

Thank you for your words of appreciation and for bringing up this interesting discussion which is relevant to our research. As you have mentioned, serum albumin has emerged as an additional prognostic biomarker in patients with acute stroke, although the evidence with respect to hemorrhagic stroke is scarce. Preliminary studies by Limaye et al.[1] and Kapoor et al.[2] have thrown important light in this regard, although the relationship of admission time serum albumin and the intensity of acute inflammatory response remain unclear.

In this context, the results of a multicenter, multinational study—the MNEMONICH investigators—are worth discussing.[3] The aim of this study was to determine the association of admission serum albumin and systemic inflammatory response syndrome (SIRS) with outcomes in patients with intracerebral hemorrhage (ICH). They observed that in patients with ICH, hypoalbuminemia on admission is strongly associated with the presence and severity of SIRS. It was concluded that SIRS, but not hypoalbuminemia *per se*, predicts poor outcomes at discharge. This finding supports the hypothesis that serum albumin represents a biomarker of acute inflammatory response and the severity of hypoalbuminemia is proportional to the degree of inflammation in patients with ICH.

We agree with your opinion that incorporating serum albumin with existing biomarkers like neutrophil–lymphocyte ratio (NLR) can provide us with a more accurate composite index for early identification of ICH patients at risk of poor outcomes. This will help us to develop future therapeutic strategies aimed at modulating this exaggerated inflammatory response occurring in a subset of hemorrhagic stroke patients.

We shall look forward to further studies and evidence in this regard.

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