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Reflections on the Clinical Implications of Glial Fibrillary Acidic Protein and Neuroglobin in Ischemic Stroke [Letter]

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Dear editor

We recently read the article published in your journal regarding the expression of glial fibrillary acidic protein (GFAP) and neuroglobin (NGB) in patients with ischemic stroke.[1] The study's objectives are clear, the methodology rigorous, and the conclusions carry significant clinical implications. The authors have successfully explored the potential of these biomarkers in assessing post-stroke prognosis, providing valuable insights for clinicians. However, we believe that further research is needed to refine these findings.

First, we would like to address some limitations concerning the biomarker detection methods used. Specifically, the detection technologies may have issues related to sensitivity and specificity, which could impact the accuracy of the results. Additionally, variations in laboratory procedures and technical inconsistencies might affect the reproducibility of the experimental outcomes. Therefore, it is advisable for future studies to conduct more thorough validations of the selected detection techniques and to standardize laboratory operations rigorously to ensure the reliability of the results.

Second, the article does not adequately investigate the influence of different subgroups (such as gender and medical history) on the levels of GFAP and NGB. These subgroup factors could significantly affect the expression of the biomarkers and subsequently influence the prognosis of stroke patients. For instance, variations in baseline diseases or physiological changes among patients of different genders may lead to differential biomarker levels,[2] making it crucial to understand these discrepancies in clinical practice.

Third, the potential impact of environmental factors[3] and genetic backgrounds[4] on protein expression was not considered, which may result in a one-sided perspective. Factors such as lifestyle, dietary habits, and genetic predisposition could all influence the levels of GFAP and NGB. Therefore, future research should include these variables to provide a more comprehensive evaluation of these biomarkers across diverse populations.

Despite these limitations, the contributions of this study should not be overlooked. The authors have offered a profound analysis of biomarkers in stroke patients, pointing the way for future clinical applications.

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