Journal of Hepatocellular Carcinoma

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LETTER

Predicting Treatment Response and Prognosis in Patients with Hepatocellular Carcinoma after Interventional Therapy [Letter]

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Dear editor

With great interest, we read the recent article by Ma et al published in the Journal of Hepatocellular Carcinoma.[1] This significant study provides insights into the association of the oxidative stress-related genes (OSRGs) with treatment response and prognosis in patients with hepatocellular carcinoma (HCC) after transarterial chemoembolization (TACE). A prognostic nomogram was developed for survival prediction. We appreciated the rigorous efforts and valuable contributions of this study. However, we would like to raise the following comments:

Firstly, the Cox regression model is a widely accepted method for its clinical utility. However, its use in scenarios with potential competing risks may inadvertently lead to risk overestimation. Traditional survival analysis techniques might not fully account for the influence of other events on the primary study endpoint. A competing risk model could provide a more holistic viewpoint for outcome prediction in this study, especially when candidate variables are potentially interrelated.[2]

Secondly, the potential confounding factors should be evaluated. Commendably, the authors adjusted for potential covariates. However, a further inclusion of other potential confounders may further enhance the stability and reliability of the results. Considering studies have shown differences in HCC prognosis among different races, it can be inferred that race might be an important covariate affecting the clinical outcome.[3–5] Race of patients in the TCGA-LIHC cohort are accessible, and therefore race should also be considered for a more comprehensive assessment of the robustness of these findings.

Last but not least, sex disparity in incidence and tumor aggressiveness was observed in HCC patients.[6,7] A separate analysis for this subgroup would be a valuable addition to these findings. In addition, in order to apply this model in clinical practice as soon as possible, it is proposed to develop a user-friendly software and/or website.

This article is a significant step forward in our understanding of the relationship between OSRGs and treatment response and clinical outcome in HCC patients. A more comprehensive prediction and further validation could be an intriguing topic for further investigation.

Funding

There is no funding to report.

Disclosure

The authors declare no potential conflict of interest in this communication.

Received: 3 September 2024
Accepted: 14 September 2024
Published: 17 September 2024

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https://doi.org/10.2147/JHC.S494470