Journal of Hepatocellular Carcinoma Dovepress

Open Access Full Text Article LETTER

Gamma-Glutamyl Transpeptidase to Neutrophil Ratio: Prognostic Indicator for Hepatocellular Carcinoma Patients Post-Curative Resection [Letter]

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Dear editor

Recently, I read with interest an original article by Shen et al, "Gamma-Glutamyl Transpeptidase to Neutrophil Ratio as Prognostic Indicator for Hepatocellular Carcinoma Patients Post-Curative Resection".[1] This is an early or first study to explore the relationship between the preoperative gamma-glutamyl transpeptidase to neutrophil ratio (GNR) and hepatocellular carcinoma (HCC) prognosis following curative resection, which provides a simple and efficient way to identify patients at high risk of poor prognosis in order to enhance clinical management, which is very valuable and relevant in the field of medicine. Although radical resection is the mainstay of treatment for HCC, its postoperative outcome is often unsatisfactory and poses a serious burden on the global health system.[2] Therefore, it is the responsibility of healthcare professionals to enhance the postoperative prognostic assessment of HCC patients and to implement active monitoring strategies.

The study in this paper is well designed, methodologically sound, and has detailed and informative results. The authors used a variety of methods to explore the relationship between GNR and the risk of poor prognosis in HCC patients who underwent radical resection, such as the Kaplan–Meier method, Log rank test, Cox regression analysis, Restricted cubic spline, and came to reliable conclusions. There are still several areas for improvement in this study for reference.

First, although the utility of the Cox regression model is widely recognized, it may inadvertently lead to an overestimation of risk in the presence of potentially competing risks. Therefore, for the assessment of prognostically relevant independent factors explored in this article, especially when other competing outcome events occur, the use of competing risk model seems more appropriate. While traditional survival analysis techniques may not adequately account for the impact of secondary events on the primary study outcome, contributing to assessment bias, competing risk model provides a more comprehensive analytical perspective.[3]

Second, the authors are to be commended for incorporating important information such as demographic characteristics and laboratory tests to adjust for potential covariates. However, we recommend further expansion of the covariates. The study showed a higher incidence of postoperative complications of HCC in patients with low and high body mass index (BMI) compared with patients with normal BMI, and it can be inferred that BMI may be an important covariate affecting clinical prognosis.[4] Moreover, in order to assess the stability and reliability of the results more comprehensively, lifestyles such as smoking and alcohol consumption should also be considered.[5]

In addition, this article focuses on the relationship between GNR and postoperative HCC in the general population. Given previous studies on type II diabetes mellitus and HCC,[6] subgroup analyses based on blood glucose levels may enhance the applicability and generalizability of the results of the study.

Received: 22 November 2024
Accepted: 29 November 2024
Published: 3 December 2024

This research is an important step forward in the understanding of the relationship between GNR and prognosis in patients with HCC. In-depth mechanistic studies and clinical validation will further increase its value in clinical applications.

Disclosure

The author reports no conflicts of interest in this communication.

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https://doi.org/10.2147/JHC.S508062