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Letters to the editor

Comment on "Liver stiffness measurement trajectory analysis for prognosis in patients with chronic hepatitis B and compensated advanced chronic liver disease"

Dear Editor,

Jiang et al.[1] recently examined the dynamic prognostic value of liver stiffness measurements (LSMs) in patients with chronic hepatitis B (CHB) and compensated advanced chronic liver disease (cACLD). Through trajectory analysis, they categorized patients based on longitudinal LSM trends and found that distinct trajectories—such as persistently low, decreasing, or increasing patterns—were correlated with the risk of liver-related events (LREs) and mortality. Notably, patients with persistently high or increasing LSMs faced significantly higher adverse event rates. This trajectory-based approach emphasizes the importance of serial monitoring over static assessment, offering clinicians a novel tool for early intervention and personalized management. The findings underscore that liver stiffness dynamics have independent prognostic value and could improve risk stratification in clinical practice. However, certain potential issues warrant further investigation.

Firstly, it should be noted that, as a retrospective cohort study, this research[1] did not clearly specify the timing of LSMs. A potential concern is that some patients may have undergone LSM testing up to three months prior to enrollment, while others may have had LSMs performed just one day before enrollment. This discrepancy could introduce significant measurement bias. Given that patients with CHB and cACLD may undergo rapid disease progression within a short period, LSMs conducted one day before enrollment are more likely to reflect the patients' current clinical status. Therefore, it is essential to clearly define the timing of LSM assessments to ensure reliable and valid conclusions.

Secondly, as stated in the abstract of this study[1], "***Monitoring LSM trajectories improves prognostic prediction in CHB and cACLD compared with single measurements.***" However, the study[1] did not explore the relationship between single LSM measurements and prognosis in patients with CHB and cACLD. Therefore, there is insufficient evidence to support the claim that monitoring LSM trajectories offers superior prognostic value over single measurements. It remains uncertain whether a single LSM measurement, especially when performed at the time of enrollment, would be adequate for predicting clinical outcomes or could even rival LSM trajectory analysis in prognostic prediction for patients with CHB and cACLD. Further studies are needed to directly compare these approaches.

Thirdly, it is important to highlight that the primary objective of this study[1] was to investigate the association between LSM trajectories and the risk of LREs and mortality in patients with CHB and cACLD. However, important prognostic factors closely linked to LREs and mortality—such as treatment strategies—were not accounted for in the analysis. According to Park et al.[2], both entecavir (ETV) and tenofovir disoproxil fumarate (TDF) offer similar long-term antiviral effectiveness in treatment-naïve individuals with CHB. However, TDF may yield superior outcomes specifically in patients who are HBeAg-positive. In addition, research conducted by Cao et al.[3] revealed that TDF, when compared to ETV, was associated with a significantly lower cumulative risk of developing hepatocellular carcinoma and a reduction in overall mortality among East Asian patients with CHB-related cirrhosis. In this context, treatment strategy may represent a critical confounding variable, potentially exerting a stronger influence on clinical outcomes than LSM trajectories themselves. Therefore, it is necessary to report the treatment regimens of the enrolled patients and adjust for these variables in the prognostic model to ensure accurate and reliable conclusions.

Declaration of competing interest

None.

References

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