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Correspondence

Correspondence to letter to the editor on "Risk stratification by noninvasive tests in patients with metabolic dysfunction-associated steatotic liver disease"

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Dear Editor,

We sincerely appreciate the thoughtful and constructive comments from Dr. Wang and colleagues[1] regarding our recent publication in *Clinical and Molecular Hepatology*. Their reflections offer an excellent opportunity to further clarify and expand upon our findings and the clinical implications of the Korean Association for the Study of the Liver (KASL) two-step algorithm for risk stratification in metabolic dysfunction-associated steatotic liver disease (MASLD).[2]

MASLD represents a rapidly growing public health concern worldwide, and optimizing noninvasive tools for risk stratification remains an urgent need in both primary care and specialty hepatology settings. While liver biopsy remains the reference standard, its invasiveness and impracticality for routine use highlight the importance of simplified, reproducible, and scalable models such as the one proposed in our study. Our goal was to translate complex diagnostic frameworks into actionable tools for real-world application, particularly in resource-constrained environments.

First, we acknowledge the limitation of relying on single time-point data in our study. Hepatic fibrosis is a dynamic process, particularly in MASLD, where metabolic improvements, lifestyle interventions, and pharmacologic therapies may influence disease trajectory. Although our current study was cross-sectional in nature, we fully agree that longitudinal follow-up would provide greater insight into fibrosis progression or regression. Encouraged by this observation, we are currently planning prospective studies to evaluate temporal changes and their predictive value for long-term outcomes.

Second, we appreciate the authors' point on the apparent discordance between hepatic steatosis (as measured by controlled attenuation parameter) and fibrosis stage. This observation is consistent with histological evidence indicating that steatosis tends to decrease as fibrosis advances.[3,4] The proposed explanation includes hepatocyte dropout, altered lipid metabolism, mitochondrial dysfunction, and reduced lipid storage capacity in cirrhotic livers.[5] This process has also been observed in other chronic liver diseases and supports the notion that steatosis alone may not reliably reflect disease severity in advanced stages.

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Third, we thank Dr. Wang and colleagues[1] for highlighting composite models such as the FibroScan-AST (FAST) score and Agile 3+/4 algorithms, which indeed show promise in various cohorts. While the diagnostic performance of FAST and Agile scores was notable (AUROCs 0.80–0.85), their clinical applicability may be constrained by wider indeterminate zones and the requirement for multiple parameters. In contrast, the KASL two-step algorithm emphasizes clinical usability by simplifying the decision-making process and minimizing ambiguity in intermediate-risk patients.

Additionally, we would like to comment on the practical application of the KASL two-step algorithm. Its simplicity lies in the sequential use of readily available FIB-4 followed by liver stiffness measurement, allowing a straightforward and intuitive pathway for frontline clinicians. The model's strength is further supported by its validation in an Asian MASLD cohort, reflecting region-specific disease characteristics that may differ from Western populations. Moreover, our simplified three-group model also showed robust discriminative ability in stratifying risk and guiding referrals to specialists, further enhancing its clinical utility.

We also acknowledge the limitations of vibration-controlled transient elastography (VCTE), including technical failure in obese patients and limited accessibility in some settings. However, recent advancements have improved its feasibility. For instance, the XL probe has enhanced accuracy in patients with high body mass index, and global efforts to disseminate VCTE through telemedicine and outreach programs have expanded its availability.[6] We anticipate that continued refinement and integration with other noninvasive tests will further strengthen its role in MASLD management.

In conclusion, we thank Dr. Wang and colleagues[1] once again for their valuable feedback and insightful comments. Their letter highlights important aspects of MASLD risk stratification that deserve continued attention. We agree that incorporating dynamic assessment, refining diagnostic cutoffs, and balancing accuracy with clinical usability are key to optimizing risk stratification strategies.

Authors' contribution

Both authors contributed to drafting, revising, and approving the responses to the reviewers' comments.

Conflicts of Interest

The authors have no conflicts to disclose.

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Abbreviations:

FAST, FibroScan AST; KASL, Korean Association for the Study of the Liver; MASLD, metabolic dysfunction-associated steatotic liver disease; VCTE, vibration-controlled transient elastography