ELSEVIER

Contents lists available at ScienceDirect

Annals of Hepatology

journal homepage: www.elsevier.es/annalsofhepatology



Letters to the editor

Comment on "MAFLD criteria are better than MASLD criteria at predicting the risk of chronic kidney disease"



Dear Editor,

Pan et al. [1] recently conducted a study comparing the predictive capabilities of two sets of criteria for metabolic dysfunction-associated liver diseases in assessing the risk of chronic kidney disease (CKD). The research evaluated whether the metabolic dysfunctionassociated fatty liver disease (MAFLD) criteria or the metabolic dysfunction-associated steatotic liver disease (MASLD) criteria were more effective at identifying individuals at higher risk for CKD. The findings revealed that the MAFLD criteria demonstrated superior predictive performance for CKD risk compared to the MASLD criteria. This suggests that the MAFLD framework may be more clinically useful for identifying patients with fatty liver disease who are at greater risk of developing CKD, potentially enabling earlier interventions and improved management of these interconnected metabolic conditions. The study underscores the importance of refining diagnostic criteria to enhance risk stratification and patient outcomes in metabolic liver diseases. Nevertheless, certain potential issues warrant further investigation and clarification.

First, as described in this study [1], the primary outcome of interest is CKD. However, it is important to recognize that several key risk factors for CKD, such as hypertension [2], diabetes [3], and the use of nephrotoxic medications, can significantly influence the development of CKD. One possible hypothesis is that patients diagnosed with MAFLD are more likely to have higher rates of comorbidities, including hypertension and diabetes, all of which are well-established risk factors for the development and progression of CKD. The presence of these comorbid conditions may exacerbate the risk of kidney dysfunction, leading to a stronger association between MAFLD and CKD. In contrast, MASLD patients might have a lower prevalence of these risk factors, which could explain a less significant observed correlation with CKD. Thus, the true predictive power of MAFLD versus MASLD criteria in CKD risk assessment may require a deeper, multifactorial approach. If these critical variables are not rigorously accounted for in the analysis, the observed superiority of the MAFLD criteria in predicting CKD risk may reflect residual confounding rather than a true predictive advantage.

Secondly, the study's [1] reliance on cross-sectional data raises concerns about the potential for selection bias, as these study designs cannot definitively establish temporal causality between the MAFLD/MASLD criteria and the development of CKD. Cross-sectional studies, by nature, capture data at a single point in time and, therefore, cannot determine whether the diagnosis of MAFLD/MASLD precedes the onset of CKD or whether CKD develops first, potentially influencing liver dysfunction. This lack of temporal information makes it challenging to

draw conclusions about the directional relationship between these conditions. Furthermore, without longitudinal follow-up, it is difficult to assess the long-term progression and potential reversibility of CKD in patients with MAFLD or MASLD. To address these limitations, Mendelian randomization [4] could provide valuable insights by leveraging genetic variants as instrumental variables to investigate the causal relationship between MAFLD/MASLD and CKD, thereby minimizing confounding and helping to establish more definitive causal pathways.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Declaration of interests

None.

References

- [1] Pan Z, Derbala M, AlNaamani K, Ghazinian H, Fan JG, Eslam M. MAFLD criteria are better than MASLD criteria at predicting the risk of chronic kidney disease. Ann Hepatol 2024;29(5):101512. https://doi.org/10.1016/j.aohep.2024.101512.
- [2] Weldegiorgis M, Woodward M. The impact of hypertension on chronic kidney disease and end-stage renal disease is greater in men than women: a systematic review and meta-analysis. BMC Nephrol 2020;21(1):506. https://doi.org/10.1186/s12882-020-02151-7.
- [3] Shen Y, Cai R, Sun J, Dong X, Huang R, Tian S, et al. Diabetes mellitus as a risk factor for incident chronic kidney disease and end-stage renal disease in women compared with men: a systematic review and meta-analysis. Endocrine 2017;55 (1):66-76. https://doi.org/10.1007/s12020-016-1014-6.
- [4] Riaz H, Khan MS, Siddiqi TJ, Usman MS, Shah N, Goyal A, et al. Association between obesity and cardiovascular outcomes: a systematic review and meta-analysis of mendelian randomization studies. JAMA Netw Open 2018;1(7):e183788. https:// doi.org/10.1001/jamanetworkopen.2018.3788.

Ying Ma

Department of Nephrology, Dongying People's Hospital (Dongying Hospital of Shandong Provincial Hospital Group), Shandong, China

Na Lv

Department of Endocrine, Dongying People's Hospital (Dongying Hospital of Shandong Provincial Hospital Group), Shandong, China

Fang Bai*

Department of Nephrology, Dongying People's Hospital (Dongying Hospital of Shandong Provincial Hospital Group), Shandong, China

*Corresponding author.

E-mail address: 15505461172@163.com (F. Bai).