



Letters to the editor

Non-invasive diagnosis of non-alcoholic fatty liver disease using an algorithm combining clinical indexes and ultrasonographic measures



Dear Editor,

Puga et al. recently published an intriguing study entitled “**Non-invasive diagnosis of non-alcoholic fatty liver disease using an algorithm combining clinical indexes and ultrasonographic measures**” in Annals of Hepatology [1]. The results of this cross-sectional study provided evidence for the clinical diagnosis of Non-Alcoholic Fatty Liver Disease (NAFLD). Although we fully agree with the conclusions of this study, the association between body mass index (BMI) and NAFLD needs to be highlighted.

Defined as weight (kg)/height (m)², BMI [2,3] is a crucial marker widely adopted in clinical practice to judge obesity (BMI ≥ 30 kg/m²) [4]. Further, considering that the indicators (weight and height) for calculating BMI can be easily obtained from medical record systems, BMI is extensively applied in clinical decision-making, including NAFLD. A cohort study based on community population found that BMI is a significant factor in predicting the occurrence of NAFLD, implying that clinicians could use BMI to judge the probability of NAFLD occurrence [5]. Further evidence from Australia has similarly suggested that obese people have a higher incidence of NAFLD [6]. The above evidence indicates that BMI or obesity is closely related to the occurrence of NAFLD. As detailed in **Table 1** of the study of Puga et al. [1], patients with NAFLD have significantly higher BMI levels than those without NAFLD (30.96 ± 4.71 versus 27.81 ± 5.26, P = 0.025). Hence, BMI could be a vital confounding factor in exploring whether clinical indices and hepatic ultrasound measurements can improve the diagnostic accuracy of NAFLD. In our opinion, performing subgroup analysis premised on the BMI value or conducting regression analysis to adjust BMI might help to obtain reliable conclusions.

Declaration of funding interests

None.

Conflict of interest

The authors have no conflict of interest to declare.

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Lingzhen Jin
Xiaofei Li*

Department of Infectious Diseases, Yiwu Central
Hospital, Zhejiang 322000, China

* Corresponding author.

E-mail address: icqwc46@163.com (X. Li)

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