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Letters to the editor

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

We are thankful for the kind suggestion regarding the association of BMI and NAFLD. The pathophysiology of NAFLD and its progression is induced by multiple factors, including both genetic and environmental factors, which interact individually. Obesity seems to play a role in NAFLD, because if the capacity of adipose tissue to store excess energy is diminished, hepatocytes store the extra lipids, mainly in the form of triglycerides [1]. Because of this, most of the clinical indices that have been proposed for the evaluation of NAFLD use both biochemical and clinical parameters, among which adiposity measures are found. Such is the case of the indices that we tested in our research, where the Fatty Liver Index (FLI) includes the BMI in its formula [2], and the Lipid Accumulation Product (LAP) is an algorithm that includes waist circumference [3].

Therefore, we consider that adiposity has been considered in an integral way in our results. However, considering the proposed observation, we carried out a regression analysis adjusting by BMI, which does not change the factors associated with the index of NAFLD activity (adjusted $R^2 = 0.075$ and p-value = 0.004). This further analysis supports our results and confirms that the clinical measurements evaluated are a good predictor of NAFLD.

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