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LETTER

Predictors of High Cardiovascular Risk Among Nonobese Patients with Type 2 Diabetes and Non-Alcoholic Fatty Liver Disease in a Chinese Population [Letter]

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Dear editor

Ruan S team recently published paper entitled "Predictors of High Cardiovascular Risk Among Nonobese Patients with Type 2 Diabetes and Non-Alcoholic Fatty Liver Disease in a Chinese Population" in Diabetes Metabolic Syndrome and Obesity.[1] Admittedly, non-alcoholic fatty liver disease (NAFLD) distinguished by hepatic insulin resistance plays a vital role in the adverse cardiovascular outcomes of type 2 diabetes mellitus (T2DM). We congratulate them on their findings.

This study explored cardiovascular risk factors in nonobese patients with T2DM. All participants were divided into two groups: NAFLD and non-NAFLD. The NAFLD patients were further grouped based on the ultrasound attenuation parameter (UAP) tertiles. According to multivariate logistic regression analysis, they concluded that age, systolic blood pressure, atherogenic index of plasma (AIP), and low-density lipoprotein cholesterol (LDL-C) are independent risk factors for cardiovascular outcomes in nonobese individuals with T2DM and NAFLD.

Although we greatly appreciate this work, the study design needs further improvement to obtain more convincing conclusions. Firstly, according to the latest expert consensus,[2] compared to NAFLD, metabolic dysfunction-associated fatty liver disease (MAFLD) may be a more suitable name, especially in patients with T2DM. Secondly, the indicators ($P < 0.1$ in univariate analysis) such as FBG ($P = 0.098$), Cr ($P = 0.091$), and liver stiffness measurement (LSM) ($P = 0.057$) in Table 3 are closely related to the prognosis of diabetes in real-world clinical practice,[3] which should be included in further multivariate regression analysis. Otherwise, it will result in the loss of useful information. Thirdly, absence of information on participant thyroid function. Hashimoto thyroiditis, subclinical hypothyroidism, hyperthyroidism, and even low triiodothyronine syndrome are a crucial risk factor for cardiovascular disease.[4] Fourthly, absence of information regarding therapeutic regimens for T2DM. Participants in this study have had diabetes for 5–7 years (see Table 1). Per guidelines,[5] treatment schedules benefiting cardiovascular for SGLT-2i and GLP-1RA should already be conducted, which will definitely affect the study's findings.

In short, only by addressing the above issues can research results be more trustworthy.

Disclosure

The authors report no conflicts of interest in this communication.

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