

Correspondence

Insulin resistance in China

To the Editor

Ying et al¹ in an interesting retrospective study, investigated the normal reference value of the homeostasis model assessment-insulin resistance (HOMA-IR), as index to quantify IR in young Chinese adults without metabolic syndrome (MS). Among the inclusion criteria, the authors ruled out the presence of fatty liver disease by ultrasound sonography (US).¹ No consideration of serum aminotransferases were reported.

Fatty liver disease, frequently associated to IR and MS, represents a spectrum of disorders ranging from simple steatosis that generally follows a benign and non-progressive clinical course to non-alcoholic steatohepatitis,² which sometimes progresses to cirrhosis and hepatocellular carcinoma.³ This liver disease is either discovered incidentally during laboratory examination, or workup of hypertension, diabetes, or morbid obesity.² Limitations of US, as a diagnostic approach include an 83% sensitivity, in other terms, the false negative results amount to 17%.² Hence, in order to select a population without fatty liver disease, it would be more accurate to include also the serum aminotransferases dosage. It will be helpful to know if the authors have more information on this issue.

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Reply from the Author

We thank Dr. Pellicano and Dr. Fagoonee for their interest in our manuscript "Analysis of homeostasis model assessment-insulin resistance (HOMA-IR) in healthy young Chinese adults."¹ We have carefully read

the comments. Here we would like to mention some points in response to their comments.

In our study, the participants refer to those without metabolic syndrome (MetS). Metabolic syndrome is diagnosed using the International Diabetes Federation (IDF) definition.⁴ Therefore, the exclusion criteria are any component of MetS. Moreover, related factors including some inflammatory factors, fatty liver, and so forth were considered in the exclusion criteria. We ruled out fatty liver, cirrhosis, and hepatocellular carcinoma in all participants by US. Liver biopsy is a gold standard to diagnose fatty liver, and it is limited to rule out liver diseases by US. The US may be more suitable to be performed than any other methods in a large population. In addition, in this study, the results of alanine aminotransferase (ALT) were basically within the normal ranges.

We appreciate Dr. Pellicano and Dr. Fagoonee's valuable comments.

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