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LETTER

Association of Triglyceride-Glucose Index with Risk of Large for Gestational Age: A Prospective Cohort Study [Letter]

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Dear editor

We are writing to express my appreciation for the insightful article titled "Association of Triglyceride-Glucose Index with Risk of Large for Gestational Age: A Prospective Cohort Study" by Lihua Lin et al, published in Diabetes, Metabolic Syndrome and Obesity. The study provides valuable insights into the association between the triglyceride-glucose (TyG) index in the first trimester of pregnancy and the risk of large for gestational age (LGA) in Southeast Chinese pregnant women.[1]

The authors conducted a comprehensive prospective birth cohort study, recruiting a large number of pregnant women and collecting detailed clinical information. The findings of this study highlight the potential use of the first-trimester TyG index as an effective predictor of adverse pregnancy outcomes, particularly LGA risk. The study's focus on the Chinese pregnant population adds significant value to the existing literature, especially given the limited research on this topic in this specific demographic.

Despite the strengths, we have some comments on this article. One of the main weaknesses in this study is the limitation of potential information that could affect the results. For example, this study did not account for confounding factors such as weight gain during pregnancy, diet, and physical activity levels, and serum insulin that may impact the results regarding LGA risk. In addition, the study population was limited to women who received prenatal care at Fujian Maternity and Child Health Hospital, so generalization of the results to other populations may be limited. This may affect the overall representation of the pregnant women population in the region. In addition, this study did not incorporate lipid and glucose levels in the late trimester into the adjustment model. This could be a weakness as changes in these parameters during pregnancy may contribute to the risk of LGA. Therefore, not including these parameters in the analysis may limit the understanding of the independent contribution of early TyG index to fetal growth.

We suggest that future studies should collect more comprehensive data, including information on weight gain during pregnancy, diet, and physical activity levels. This may provide a more holistic understanding of the factors that influence LGA risk. In addition, expanding the scope of the study population to include pregnant women from different health facilities may improve the generalizability of the study results. Future studies may also consider measuring parameters related to lipid and glucose metabolism in the late trimester of pregnancy to understand the independent contribution of TyG index to fetal growth. Furthermore, future studies that consider a wider range of genetic and environmental factors may provide additional insights into the association between TyG index and LGA risk. Thus, future studies are expected to provide a more in-depth and comprehensive understanding of the role of TyG index in predicting LGA risk in pregnant women. Unfortunately, We could not find any international references for this topic.[2,3]

In conclusion, while this study provides valuable insights into the relationship of the TyG index with LGA risk, addressing the weaknesses mentioned above and implementing the recommended improvements will further enhance the validity and applicability of the findings.

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Disclosure

The authors report no conflicts of interest in this communication.

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