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LETTER

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

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## Dear editor

Endocrine and metabolic disorders play a crucial role in adverse pregnancy outcomes, which is currently a research hotspot. We noticed Lin et al[1] recently published a paper entitled "Association of Triglyceride-Glucose Index with Risk of Large for Gestational Age: A Prospective Cohort Study" in Diabetes Metabolic Syndrome and Obesity-Targets and Therapy. They delved into the relationship between the TyG index and the risk of large for gestational age (LGA) based on a birth cohort. They found that a higher TyG index in the first trimester was independently associated with a higher risk of LGA. Logically, a high TyG index in the first trimester may serve as an early predictor for LGA.

While we appreciate the novel work, certain aspects of the current study still need further improvement to align with clinical practice. First, there is a lack of the differential diagnosis of Hashimoto's thyroiditis (HT), especially subclinical hypothyroidism. We note that the author excluded hypothyroidism and hyperthyroidism in Table 5 but did not exclude Hashimoto's thyroiditis, which is particularly closely related to LGA in patients with TSH > 2.5 mIU/L. Maternal subclinical hypothyroidism in early pregnancy (TSH > 2.5 mIU/L) was closely associated with increased odds for LGA in male newborns (OR = 1.95, 95% CI = 1.22–3.11).[2] Additionally, a prospective cohort study with 175,112 women in China showed a J-shaped relationship between TSH and LGA ($P < 0.001$), in which TSH within 0.91 to 1.82 mIU/L was the potential safe range for preconception women.[3] Actually, over 30% of women with hypothyroidism (Hypo-HT) and euthyroidism-HT (Eu-HT) have TSH greater than 2.5 mIU/L in early pregnancy, 19.7% of women with Hypo-HT and 10.1% of women with Eu-HT have TSH higher than 4.0 mIU/L ($P < 0.05$).[4] To prevent/reduce the risk of thyroid insufficiency inducing adverse pregnancy outcomes such as LGA during early pregnancy, preconception thyroid function optimization for women with Hashimoto thyroiditis (HT) through levothyroxine sodium is strongly suggested by guidelines.[5] Second, there is a lack of evaluation data on serum ferritin levels. Serum ferritin concentration prior to pregnancy or in the first trimester can affect thyroid function, which is associated with adverse pregnancy outcomes, including LGA.[6]

To sum up, only by improving the above deficiencies can the research results be more dependable.

## Disclosure

The authors report no conflicts of interest in this communication.

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