

Comment on Triglycerides-to-HDL Ratio as a Marker of Cardiac Disease and Vascular Risk Factors in Adults

Sir,

We read with great interest, the study evaluating the triglycerides (TG)-to-high density lipoprotein cholesterol (HDL-C) ratio as a marker of cardiac disease and vascular risk factors in adults by Ain *et al.*¹ We would like to draw attention to very important points in that study.

1. In that study, the standard deviations of the TG/HDL-C, the quantitative insulin sensitivity check index (Quicki), and homeostasis model assessment of insulin resistance (Homa-IR) levels are too large. All the groups, which do not show homogeneous distribution for these parameters, must be given as median (range). The authors should use the Mann-Whitney U-test and Kruskal-Wallis tests instead of the one-way Anova test, compared to non-homogeneous data. P values may change with accurate statistical evaluation.
2. In that study, patients were divided into three groups according to TG/HDL-C values. Interestingly, the body mass index (BMI) value of Group 1 is significantly higher than in the other two groups. Homa-IR value of Group 1 was lower than other Groups; whereas, the whole-body insulin sensitivity index (WBISI) value was higher than the two Groups. Abrams *et al.* reported that an 8% decrease in BMI causes an important improvement in WBISI.² A strong positive correlation between BMI with TG/HDL ratio and Homa-IR values is also known.³ If there was a positive or negative relationship between TG/HDL values and other all parameters, it should be evaluated by proper correlation analysis.¹
3. The skeletal muscle mass (SMM) value of Group 1 was higher than the other two Groups, and the visceral fat tissue value of Group 1 was slightly lower than the other two groups.¹ Does such a high BMI level in Group 1 depends exclusively on muscle mass? Were these patients doing bodybuilding? Or are there inconsistencies in their results? The waist circumference of the patients should be given in the results section.
4. Recently the atherogenic, index of plasma (AIP, log [TG/HDL-C]) value has become a more popular index

than the TG/HDL value.⁴ A previous study reported that a higher AIP level was positively and strongly related to obesity.⁵ AIP has been reported to be a novel and better marker for heart disease risk, obesity and insulin sensitivity than the TG/HDL ratio.^{4,5} The authors could evaluate the more popular AIP value in that study rather than the TG/HDL ratio.

CONFLICT OF INTEREST:

Authors declared no conflict of interest.

AUTHORS' CONTRIBUTION:

EC, MCC: Literature search and writing.

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