

PO091 Triglycerides/HDL- Cholesterol Ratio is Correlated with Insulin Resistance in Patients with Type 2 Diabetes Mellitus

by Sony Wibisono

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PO091

TRIGLYCERIDES/HDL-CHOLESTEROL RATIO IS CORRELATED WITH INSULIN RESISTANCE IN PATIENTS WITH TYPE 2 DIABETES MELLITUS

A. Tjokprawiro¹, S. Dwi Suryantoro¹, S. Murtiwi², A. Sutjahjo², S. Wibisono², A. Pranoto², S. Adi².

¹Surabaya Diabetes Nutrition Center, dr. Soetomo Teaching Hospital, Airlangga Faculty of Medicine

² Surabaya Diabetes and Nutrition Center dr. Soetomo Teaching Hospital, Airlangga Faculty of Medicine, Surabaya, Indonesia

Background: Diabetes has long been recognized to be an independent risk factor for cardiovascular disease (CVD). Cardiovascular complications are now the leading causes of diabetes-related morbidity and mortality. Prognosis of patients with diabetes is highly dependent on the presence of CVD. Insulin resistance (IR) plays an important role for development and progression of diabetes, and also may act as a predictor for development of CVD. Insulin resistance is thought to be a common finding in several metabolic disorders, such as type 2 diabetes mellitus (T2DM), impaired glucose tolerance (IGT), metabolic syndrome (MetS), hypertension, hypertriglyceridemia, low HDL cholesterol, hypercholesterolemia, hyperuricemia, obesity, and low serum testosterone. Evaluations of IR and β -cell function are important for understanding the disease status and selection of pharmacologic treatment. Triglyceride/HDL-cholesterol (TG/HDL) ratio is a new surrogate marker for IR. Diagnostic value of TG/HDL ratio is as good as HOMA-IR and could be used as an indicator of IR in clinical setting. Because IR plays important role in development of CVD and the TG/HDL-c ratio was significantly associated with these conditions, we conducted this study to determine whether the TG/HDL-c ratio is associated with IR in patients with T2DM. HOMA-IR value more than 2.0 is considered to be positive for IR.

Method: This is a cross-sectional study, which includes men and women with T2DM who were on routine follow up in private out patient diabetic clinic. Informed consent was obtained from all patients. Exclusion criteria for this study are: history of alcohol use,

history of having cardiovascular disease or cerebrovascular disease. Patients with end stage renal disease or on dialysis and with active hepatic disease are also excluded from the study. Insulin Resistance was measured using HOMA-IR and TG/HDL ratio measured using simple laboratory measurement. TG/HDL-c ratio more than 3.5 for male and more than 2.5 for female is considered abnormal. Statistical analysis was performed using SPSS 17.0 and Pearson's correlation test.

Result: a total of 227 subjects, 165 males and 62 females were enrolled. Mean value of TG/HDL-c ratio was 4.56, mean value of HOMA-IR was 6.3967. From the statistical analysis we found that TG/HDL-c ratio was significantly associated with HOMA-IR ($p < 0.05$. 95% CI) respectively

Conclusion: In our study, TG/HDL-c ratio was significantly correlated with IR in patients with T2DM.

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PAGE 1

PAGE 2
