PO335 Correlation Between Lipid Profiles And Body Mass Index In Patients With Type II Diabetes Mellitus

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PO335

CORRELATION BETWEEN LIPID PROFILES AND BODY MASS INDEX IN PATIENTS WITH TYPE II DIABETES MELLITUS

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Background: Epidemiological studies have shown that Asians are more likely to have obesity measured in terms of increased body mass index (BMI). Increased body fats are related to increased insulin resistance and may account for the increased prevalence of type 2 diabetes mellitus (T2DM) in Asians. Prior epidemiologic studies also have shown that increasing BMI is associated with higher total cholesterol, triglyceride and low-density lipoprotein cholesterol (LDL-Chol). However, these studies were limited by underrepresentation of obese subjects. Although obesity in people is more common among countries with high economic standards, its prevalence is growing rapidly in developing countries including Indonesia. With the increasing trend of prevalence of obesity and its risk factors in adult and since obesity is related with cardiovascular diseases (CVD), much attention has been given to obesity in Indonesia. Hyperlipidaemias are common in patients with diabetes and further increase the risk of ischaemic heart disease, especially in T2DM. Detection and control of hyperlipidaemia can reduce myocardial infarction, coronary deaths, and overall mortality. Indeed, even when LDL-Chol concentration is normal or slightly raised in T2DM (the major abnormalities being low HDL cholesterol and high triglyceride concentrations), the LDL-Chol particles may be qualitatively different and more atherogenic than those in non-diabetic patients. Aim of this study is to determine correlation between blood lipid profiles and BMI of patients with T2DM in Surabaya.

Method: This was a cross sectional analytical study which has enrolled patients with T2DM whowere on routine followup in private diabetic clinic. Body mass index (BMI) and blood lipid profiles (total cholesterol (tot-chol, LDL-Chol, triglyceride) were measured. Correlation between BMI and blood lipid profiles was statistically analyzed by Pearson test.

Result: The samples included 137 T2DM patients (76 males and 51 females) with mean age 62 ± 11.35 years, mean BMI 27.56 ± 3.8 kg/m2. The laboratory result of tot-chol was 203 ± 49.09 mg/dL, triglyceridewas 186 ± 163.56 mg/dL, LDL-Chol was 123 ± 41.79 mg/dL. The triglyceride, LDL level increased with increasing BMI ($p = 0.044$; $p = 0.016$ respectively), but there was no significant correlation between tot-chol versus body mass index ($p = 0.255$).

Conclusion: There was a significant correlation between BMI with triglyceride and LDL-Chol, but not with tot-chol in patients with T2DM.

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