

ABSTRACT**ANALYSIS OF ATORVASTATIN EFFECT ON LIPID PROFIL AND INFLAMMATION MARKER NF-kB IN DIABETES MELLITUS TYPE 2****Onny Ziasi Fricillia**

BACKGROUND : Diabetes is associated with an increase of macrovascular complications such as cardiovascular disease and stroke 2-4 times higher than individuals without diabetes and it is the highest cause of mortality in DM patients. Dyslipidemia is one of comorbid in diabetic disease characterized by increased small dense LDL, elevated triglycerides and decreased HDL. NF-kB is one of pro inflammatory cytokine that can be used to assess inflammatory conditions in DM and its complications. Atorvastatin is one of the statin drugs effective to lower LDL values. Atorvastatin also has a pleiotropic effects to reduce inflammatory markers.

OBJECTIVES : The aim of this study is to analyze the effect of atorvastatin 20 mg administration on lipid profile and inflammatory marker NF-kB after 6 weeks of therapy and correlation between lipid profile and NF-kB.

METHODS : This was observational prospective cohort study conducted from July 2019 to September 2019 approved by ethical committee of General Hajj Hospital, Surabaya. Eighteen patients who meet the inclusion criteria and signed the informed consent were enrolled in this study. The measurement of lipid profile and NF-kB level were done twice, before and after 6 weeks of therapy

RESULTS : After atorvastatin administration, there was a 25,54% (pre=171,67±33,428; post=127,83±42.434), a 15.34% decrease in HD level 13,67% sebesar (pre=55,53±11,09; post=47,94±8,71), a 30.70% decrease in total cholesterol level 17.05% (pre=261,00±77,76; Post= 216,50±75,04) which statistically significant (p<0.05). There was a 3.00% decrease in TG (pre=196,06±109,78; Post=195,67±166,12) level but not statistically significant (p>0.05). The NF-kB level was decrease by 21,05% (pre=0,038 ± 0,014; post=0.030 ± 0,009) statistically significant (p>0.05).

CONCLUSION : From this study, it can be concluded that atorvastatin administration can improve lipid profile in diabetes patients with dyslipidemia. There was a decrease of NF-Kb statistically different.

Keywords: Atorvastatin, diabetes, dyslipidemia, NF-kB