Background and aims Long term complications and mortality of Systemic Lupus Erythematosus (SLE) associated with vascular disease and atherosclerosis. Atherosclerosis is clinically preceded by changes in the walls of arteries, known as Intima Media Thickness (IMT) and plaque formation. IMT can be measured by B-mode ultrasonography of the carotid arteries. Atherosclerosis is an inflammatory process that was affected by inflammatory cytokines including TNF α. The role of TNF-α is important in SLE disease, so it is important looking for correlation between plasma level of TNF α with carotid artery IMT from SLE patient.

Objective To determine the correlation between plasma level of TNF-α with carotid artery IMT from SLE patient.

Methods Cross sectional study, the subjects of this study was 32 people, consisting of woman aged ≥18 years. Statistical test using unpaired t-test and Spearman rank correlation test.

Results From 32 subjects there were 20 subject have a carotid artery IMT. There were no significant differences in plasma levels of TNF-α to carotid artery IMT (p=0.0405, 95% CI -2.34 until 5.64), no significant correlation between plasma levels of TNF-α with carotid artery IMT (p=0.075; r=-0.319) in SLE patient. We compare subject with carotid artery IMT which have high and low plasma levels of TNF α is same (31.25% vs 31.25%)

Conclusions There were no significant differences and no significant correlation between plasma levels of TNF α with carotid artery IMT in SLE patient.