**EFFECT OF STATINS ON HIGH SENSITIVITY C-REACTIVE PROTEIN LEVELS IN SYSTEMIC LUPUS ERYTHEMATOSUS – A META-ANALYSIS**

**P. Tantrachoti1**, S. Klomjit1, A. Karukote2, P. Chariyawong1, J. Teerakanok1,

K. Nugent1

1 Department of Internal Medicine, Texas Tech University Health Sciences Center, Lubbock, TX, USA

2 Mahidol University, Bangkok, Thailand

*Introduction:* Patients with systemic lupus erythematosus (SLE) are at increased risk of cardiovascular complications mainly from generalized, chronic inflammation. Hydroxymethylglutaryl-coA reductase inhibitors or statins can exert strong anti-inflammatory reaction. We conducted a meta-analysis with the hypothesis that statin therapy can decrease cardiovascular complications by using the reduction of high sensitivity C-reactive protein (hsCRP) as a surrogate outcome.

*Methods:*Literature search in MEDLINE and EMBASE from inception to May 2015 was conducted by two independent authors. Eligibility criteria included: 1) RCTs, 2) comparing statins with placebo in patients with SLE, 3) have hsCRP as one of study endpoints, and 4) English literatures. The outcome was mean differences of hsCRP between statin-treated group and placebo group.

*Results:* Out of 83 studies retrieved, four RCTs (198 statin-treated and 175 placebo-treated patients) were included in the meta-analysis. The pooled weighted mean difference of hsCRP between statins and placebo groups was -0.08 mg/l (95% CI – 0.29 to 0.12). The heterogeneity among included studies was insignificant (Chi2 = 1.22, I2 = 0%, *p* 0.75).

*Conclusion:* The routine use of statins to prevent cardiac complications in systemic lupus erythematosus is not indicated. However, due to limited data, more RCTs are needed before any definite conclusion can be made.

