IMPROVEMENT IN PSORIASIS SKIN DISEASE SEVERITY IS ASSOCIATED WITH REDUCTION OF CORONARY PLAQUE BURDEN

JB Lerman,* AA Joshi, J Rodante, T Aberra, MT Kabbany, TF Salahuddin, Q Ng, J Silverman, MY Chen, NN Mehta. National Heart, Lung and Blood Institute (NHLBI), Washington, DC, United States

10.1136/jim-2016-000080.34

Purpose of Study Psoriasis (PSO), a chronic inflammatory disease associated with increased cardiovascular (CV) risk, provides a clinical human model to study inflammatory atherogenesis. While PSO severity is associated with both in vivo vascular disease and future CV risk, the longitudinal impact of PSO severity on coronary disease progression is unknown. We hypothesized that an improvement in PSO severity may lead to a reduction in coronary plaque burden by coronary CT angiography (CCTA).

Methods Used Consecutively recruited PSO patients (N=50) underwent CCTA (320 detector row, Toshiba) and cardiometabolic profiling at baseline and 1-year follow-up. Total (TB) and non-calciﬁed (NCB) coronary plaque burden were quantiﬁed using QAngio (Medis, Netherlands). PSO severity was measured as the psoriasis area severity index (PASI). The longitudinal change in coronary plaque burden was analyzed with unadjusted and adjusted regression.

Summary of Results The cohort had a low Framingham Risk Score and mild to moderate PSO. Patients whose PSO severity improved (ΔPASI –27%; p<0.001) (N=33) had signiﬁcant improvement in TB (β=0.40, p=0.003) and NCB (β=0.49, p<0.001) (table 1), beyond adjustment for traditional CV risk factors, BMI, statin use, & systemic/biologic PSO therapy.

Conclusions Improvement in PSO severity was associated with improvement in coronary plaque burden by CCTA. Our study suggests that a reduction in skin inﬂammation may reduce the progression of early, non-calciﬁed coronary plaque. Larger studies are needed to conﬁrm these ﬁndings.

Abstract 18 Figure 1 *P-value is calculated by comparing baseline and 1-year follow-up values for variables using paired t-test for continuous variables, and Pearson’s chi-squared test for categorical variables. All values are expressed as Mean±SD, unless speciﬁed otherwise. PASI: Psoriasis Area Severity Index.

Table 1: Demographic and Clinical Characteristics of the Study Group, stratified by Improvement in Psoriasis Area Severity Index (PASI) Score

Abstracts