PERIODONTAL DISEASE IN LUPUS ERYTHEMATOSUS AND CARDIOVASCULAR RISK FACTORS

Goizueta C[1], Gonzalez Lucero L[1], Bertolaccini MC[1], Maldonado PR[1], Sueldo HR[1], Martinez RN[1], Yacuzzi MS[1], Machado Escobar MS[1], Santana M[1], Galindo L[1], Reynoso EFV[2], Morales P[2], Rodriguez Skegro J[3], Bellomio V[1], Lucero E[1] [1] Department of Rheumatology, Hospital Ángel C. Padilla, Tucumán, Argentina. [2] Department of Dentistry, Hospital Ángel C. Padilla, Tucumán, Argentina. [3] Deparment of Imaging, Hospital Ángel C. Padilla, Tucumán, Argentina,

Background/Purpose: The aim of this study was to determine the prevalence of periodontal disease (POD) in patients with Systemic Lupus Erythematosus (SLE) and its relationship with cardiovascular risk factors.

Methods: Cross-sectional study. POD was determined in patients diagnosed with SLE (ACR criteria 1982/1997) between the months of May to December 2014, through dental evaluation using the Loe and Sillness index with measurement of bags and plaque on all four sides of each tooth in both jaws. We evaluate: Demographic data: age at diagnosis and time of evolution, use and dose glucocorticoids in the last six months, SELENA-SLEDAI, laboratory variables: erythrocyte sedimentation rate (ESR mm), ultrasensitive PCR (hsCRP mg/l), cholesterol (mg/dl), triglycerides (mg/dl) HDL (mg/dL) and LDL (mg/dl). Cardiovascular variables: presence of metabolic syndrome (ATP III criteria), Body Mass Index (BMI), CVD risk as hsCRP value (Low <1 intermediate 1-3 and high> 3 mg/lt). Presence of Diabetes Mellitus (WHO criteria DBT- 1999), Arterial Hypertension (JNC VIII recommendations), hypercholesterolemia (cholesterol ≥ 200mg / dl) and smoking. Doppler ultrasound of neck vessels was performed using ultrasound with measurement of Intimate Media combined thickness (IMT) of common carotid artery, carotid bulb, and internal carotid and number of plaques. Dental variables: presence of POD according to severity and extent. Statistical analysis: descriptive statistics; for categorical variables: Chi 2 test, Fisher exact test; T test for continuous variables.

Results: Of 123 patients evaluated, 33 were excluded due to dentures in both jaws, 2 for pregnancy, 3 for drug use affecting the dental evaluation and 4 by the presence of other diseases. Finally, 81 patients were included, 91.4% (n = 74) women, mean age of 34.2 ± 11.9 years and mean age at diagnosis of SLE of 25.2 ± 8.1 years, duration of disease 104.8 ± 94.9 months and median SELENA SLEDAI of 2 (0-22). They were treated with GC in the last six months 64.2% (n = 52), 22.2% (n = 18) with doses > 0.5 mg /kg/day. The prevalence of periodontal disease was 48.1% (95%CI 37.3 – 59); 17.3% (n = 14) with mild to moderate type of both arches, 11.1% (n = 9) of an arcade and 12.3% (n = 10) with chronic marginal gingivitis. Of 81 patients, 21% (n = 17) met criteria for diagnosis of MS, 38.3% (n = 31) overweight and 14.8% (n = 12) obese; 29.6% (n = 24) had hypercholesterolemia, 2 were diabetics and three smokers. The mean hsCRP was 8.8 ± 12.9. CVD risk messured by hsCRP was higher at 46.9% (n = 38), intermediate in 24.7% (n = 20) and low in 28.4% (n = 23). Doppler ultrasound of neck vessels was performed in 58 patients with a mean of 0.5 ± 0.7mm MICS. No patient had atherosclerosis plaques. Statistically significant association between the presence of periodontal disease and use of corticosteroids in the last 6 months was found (p = 0.05) but none between POD and MS, DBT, hypercholesterolemia, hsCRP, BMI or SLEDAI (p = NS) in this population.

Conclusion: The prevalence of periodontal disease was 48.1%. There was no association between POD and cardiovascular risk.