

Prevalence of Periodontitis in Patients with Rheumatoid Arthritis and Systemic Lupus Erythematosus.

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Background

Periodontitis (PD) is a chronic inflammatory disease of the gingival tissues triggered by a dysbiotic microflora and causing the loss of soft and hard tissues surrounding the dentition. Over the last two decades, PD has been linked to a systemic inflammatory response and an increased risk of other comorbidities including cardiovascular diseases and diabetes. Numerous observational studies have confirmed an association between PD and rheumatic diseases. Some evidence suggests an association with rheumatoid arthritis (RA) and a beneficial effect of periodontal treatment on RA outcomes. Scarce evidence instead exists on the association between PD and Systemic Lupus Erythematosus (SLE). The main aim of this study was to evaluate the prevalence of PD in RA and SLE.

Methods

We conducted a cross-sectional survey of consecutive eligible outpatients with RA and SLE attending the Rheumatology Department at UCLH. PD diagnosis was estimated administering a validated self-reported questionnaire. Medical histories, cardiometabolic risk factors and assessment of standard biomarkers of inflammation and RA activity were collected as part of the outpatients' visit.

Results

86 patients affected by RA and 122 by SLE and 5 presenting both diseases were recruited and agreed to complete the questionnaire. PD was detected in 100 patients of the overall survey (47%). 38 (44%) patients with RA and 59 (48%) patients with SLE had prevalent PD. There was no statistically significant difference in the prevalence of PD between the two patients' groups ($p=0.575$). PD was associated with diagnosis of diabetes ($p=0.023$), hypertension ($p=0.004$) and hypercholesterolemia ($p<0.0001$). Diagnosis of PD was associated with increased levels of C-reactive protein (CRP) (2.8 ± 3.3 vs 4.0 ± 4.4 , $p=0.03$) in the whole population. In RA patients PD was associated with increased CRP (3.2 ± 3.2 vs 5.2 ± 4.4 , $p=0.014$) and Erythrocytes Sedimentation Rate (9.8 ± 10.0 vs 18.3 ± 16.6 , $p=0.008$).

Conclusion

Prevalence of PD is similar in both RA and SLE (approximately 45%) and to the national estimates (Adult Dental Survey 2009). PD could contribute to an increased inflammatory profile in patients with RA and SLE. Our data highlight the need of assessing oral health needs of patients with rheumatic diseases.