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Background: Osteoporosis is a common comorbidity in patients with systemic lupus erythematosus (SLE). Available evidence showed that autoimmunity and associated inflammation play main effect in the pathogenesis of negative skeletal effects in SLE patients. However, the potential contribution of disease-associated factors to bone status in SLE is not well known since the reported risk factors from different studies differ greatly.

Objectives: The aim of this study was to examine frequency of reduced bone mass in SLE women, and determine their potential associations with disease activity, damage accrual and SLE-related clinical markers.

Methods: A cross-sectional study including a total 121 Caucasian pre-menopausal and postmenopausal women was conducted (mean age 49.29±12.43 years). The SLE Disease Activity Index (SLEDAI-2K) and the SDI Damage Index were used to assess disease activity and disease-related damage, respectively. Bone mineral density (BMD) of the left femoral neck and lumbar spine (L2–L4) were measured by dual-energy X-ray absorptiometry (Hologic QDR 400).

Results: Ten patients (8.3%) had osteoporosis, 63 (52.1%) patients had osteopenia and 6.8% of women had history of previous fracture. Patients with low bone mass had a significantly higher mean SDI (1.36±1.26 versus 0.70±1.09 p=0.003). T-score at lumbar spine was inversely correlated with SDI score (r=-0.222, p=0.014) and complement C3 level (r=-0.206, p=0.024). Results of bivariate correlations showed that T-score at lumbar spine was inversely correlated with SDI score (r=-0.222, p=0.014) and complement C3 level (r=-0.206, p=0.024). SDI scores were significantly different between patients with osteoporosis, osteopenia and normal BMD after adjusting for age, menstrual status, BMI, time since diagnosis and corticoid use (p=0.004).

Conclusion: There is a high prevalence of low BMD in Caucasian women with SLE and this status of osteopenia/osteoporosis was associated with higher damage accrual scores, supporting that disease damage may itself be a major contributor to the low BMD. SLE women with organ damage require regular bone status monitoring to prevent further musculoskeletal damage. Since diminished BMD is a main comorbidity it is therefore essential to study, monitor and prevent osteoporosis in SLE women to avoid fractures leading to reduced quality of life.

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Acknowledgements: This research was supported by the grant P10523-2016 from “Consejería de igualdad, salud y políticas sociales” (Junta de Andalucía) and is part of the research group LyDIMED “Lupus y Dieta Mediterránea”.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.2011

AB0316

ADHERENCE TO THE MEDITERRANEAN DIET AND ITS ASSOCIATION WITH DISEASE ACTIVITY AND DAMAGE ACCRUAL IN WOMEN WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: There is limited evidence regarding the impact of the Mediterranean Diet (Med Diet) on autoimmune diseases although it has been proposed that adherence to the Med Diet may decrease the risk of certain autoimmune diseases. However, the potential usefulness of the Med Diet as a high-quality dietary pattern for other autoimmune diseases such as SLE has not yet been investigated.

Objectives: The aim of this study was to evaluate the potential association between the adherence to the Med Diet and disease activity, damage accrual and SLE-related clinical markers in a large cohort of women with SLE.

Methods: In this cross-sectional study, we assessed Med Diet adherence through a 14-item questionnaire in 253 women with SLE (mean age 46.74 ± 12.70 years). The SLE Disease Activity Index (SLEDAI-2K) and the SDI Damage Index were used to assess disease activity and disease-related damage, respectively. Levels of C-reactive protein (CRP; mg/dL), homocysteine (Hcy; mol/L), anti-double stranded DNA antibodies (anti-dsDNA) (IU/mL), complement C3 (mg/dL), and complement C4 (mg/dL) were determined.

Results: The Med Diet adherence score was classified as follows: low adherence (≤ 5 points); medium adherence (6–9 points) and good adherence (≥ 10 points). Only 50.2% of the SLE women had good adherence to the Med Diet. The ANCOVA models showed significant differences between patients with good adherence to the Med Diet and those with medium and low adherence in SLEDAI (p ≤ 0.001) and SDI (p ≤ 0.001). Age, medical treatment (immunosuppressors, corticoids, or antimalarials), smoking status, and body mass index (BMI) were included as confounding factors. The odds ratio (OR) for having active SLE (SLEDAI ≥ 5) or the presence of damage (SDI ≥ 1) was lower among patients whose Med Diet score was higher (p ≤ 0.001).

Conclusion: Adherence to the Med Diet influences disease activity and damage accrual in SLE women. Thus, these patients would benefit from nutritional counselling and education on modification, to help adapt their lifestyles towards the Med Diet pattern. This would help slow the progression of SLE and the damage it causes.

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Acknowledgements: This research was supported by the grant P10523-2016 from “Consejería de igualdad, salud y políticas sociales” (Junta de Andalucía) and is part of the research group LyDIMED “Lupus y Dieta Mediterránea”.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.2054

AB0317

ADHERENCE TO MEDITERRANEAN DIET AND NUTRITIONAL STATE IN ITALIAN WOMEN WITH ISOLATED SJÖGREN'S SYNDROME

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Background: The Mediterranean Diet (MD) has anti-inflammatory and immunomodulatory effects^{1,2} suggesting a protective role in rheumatic diseases. There is limited knowledge about the eating habits and the nutritional state in patients with isolated Sjögren Syndrome (SS) living within the Mediterranean area.

Objectives: assessment of adherence to the MD and analysis of the nutritional state in women with SS and their correlations with the clinical, laboratory and histological data of the disease.

Methods: patients classified as isolated SS according to AECG criteria 2002³ who had undergone to minor salivary gland biopsy during the previous twelve months were consecutively enrolled during follow-up visits. The adherence to the MD was assessed by the Med Diet (MDiet)⁴ which includes eleven groups of foods; to each group is assigned a value ranging between 0 and 5 based on the frequency of monthly intake. The total score spans from 0 (poor adherence) to 55 (maximum adherence). The level of physical activity was measured by the 6-minutes walking test (6MWT) and by the International Physical Activity Questionnaire (IPAQ). Systemic disease activity was evaluated with the EULAR SS disease activity index (ESSDAI); EULAR SS patient-reported index (ESSPRI) was calculated as well. A subgroup of patients was asked to fill a daily food