FACTORS ASSOCIATED WITH OSTEOPOROSIS AND FRACTURE IN PATIENTS WITH SJÖGREN SYNDROME


Background: Primary Sjögren’s syndrome (SSp) is a systemic autoimmune disease characterised by exocrine gland affection and multisystem involvement. In addition to the systemic inflammatory affection, patients with SSp have additional risk factors to develop osteoporosis (OP) and its major complication, osteoporotic fracture.

Objectives: The aim of the study is to determine the sociodemographic and clinical factors of pSS associated with the presence of OP and osteoporotic fracture in patients with pSS from the SJÖGRENREGISTRY registry.

Methods: SJÖGRENREG is a descriptive, cross-sectional and multicenter study of patients with pSS classified according to European-American consensus criteria. Patients attended in consultations of 33 Spanish rheumatology services were asked to participate in the study. The continuous and categorical variables were analysed by means, medians, and frequencies, with their respective deviations and interquartile ranges (p25-p75). Bivariate and multivariate analyses were carried out using a binomial logistic regression to study the factors associated with osteoporosis and osteoporotic fracture in pSS.

Results: In the SJÖGRENREGISTRY registry, 437 patients were included (95% women, with a median age of 58.63 (50.02–67.98) years). The prevalence of OP in the cohort was 18.54% (81 patientes). The prevalence of OP in men (n=21) was 19%, 2 men in the age group of 51–64 years and 2 in the group of >64 years. Three hundred of the women in the registry were menopausal (76.4%); a total of 673/300 women with menopause had OP (15%). A total of 37 osteoporotic fractures (8.5%) were recorded in the cohort. Factors associated with OP in women with SSp in the bivariate analysis were: age (60.5% in the group of >64 years, 28% in the group of 51–64 years and 2.6% in the group <50 years, p=0.001), the time course of the disease (11.35 (SD 7.95) vs 7.8 (SD 6.14), p<0.001), the age of menopause (47 (SD 7.29) vs 48.11 (SD 5.67), p=0.020), the ESSDAI (6 (DS 7) vs 4 (DS 5), p=0.020), and presence of anti-La (77% vs 64.7%, p=0.030). In the multivariate analysis, there was an association between OP and age in the 51–64 age group, OR 9.993 (95% CI 2.301–43.399, p=0.002), age >64 years, OR 20.610 (CI 95% 4.679–90.774, p=0.001) and time course of the disease, OR 1.046 (95% CI 1.008–1.085, p=0.017). Similarly, an association was found between the fracture and age in the 51–64 age group, OR 5.068 (95% CI 1.117–22.995, p=0.035), age >64 years, OR 7.674 (95% CI 1.675–35.151, p=0.009), the time course of the disease, OR 1.049 (95% CI 1.003–1.097, p=0.036) and the ESSDAI score, OR 1.080 (95% CI, 1.029–1.134, p=0.002).

Conclusions: Patients with pSS have a considerable prevalence of osteoporosis and osteoporotic fracture. Age and time of evolution were factors associated with the development of OP, and similarly, age, time of evolution of the disease and ESSDAI were factors associated with the development of fracture in patients with pSS.

Disclosure of Interest: None declared


BIOMARKERS AS DISEASE ACTIVITY INDICANTS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: In recent years, the search has been going on for the biomarkers potentially useful in the follow-up of patients with systemic lupus erythematosus (SLE).

Objectives: The aim of our study was to establish the importance of various serum, immunological and biological parameters as disease activity indicators in SLE.

Methods: The study involved 85 SLE patients in whom disease activity assessment was performed using the Systemic Lupus Erythematosus Disease Activity Index (SLEDAI). In addition to standard anti-dsDNA antibodies and C3 complement component, anti-nucleosome and anti-C1q antibodies and monocyte chemotacttractant protein-1 (MCP-1) were determined in the serum and urine. The antibodies were determined using the ELSA test, while serum and urine MCP1 was determined using the sandwich enzyme immunoassort test in accordance with the instructions by the manufacturer, R and D Systems, Inc, Minneapolis (USA).

Results: The studied group consisted of 78 women and 7 men, with the mean age of 45.27±9.71 years and average disease duration of 10.37±7.99 years. Univariate linear regression analysis showed that all of the examined parameters with the exception of C3 complement demonstrated a statistically significant impact on the SLEDAI values (for anti-dsDNA p=0.033, anti-nucleosome p=0.002, anti-C1q antibodies p=0.005, serum MCP1 p=0.006, urinary MCP1...
The study showed that anti-dsDNA, anti-nucleosome and anti-C1q antibodies were associated with SLE disease activity, but the association was strongest with serum and urinary MCP1.

REFERENCES:

Objectives: We aimed at assessing ovarian reserve in a SLE cohort, by US determination of AFC and by analysing serum levels of AMH, FSH, E2.

Results: Nineteen SLE patients (median age 35 years, IQR 25.8; mean disease duration ±SD 12.2±7.7 months) and 8 HS were evaluated. A mean ±SD SLEDAI-2K of 2.5±1.5 was registered; 3 patients had a chronic damage (SDI=1). FSH values significantly higher in SLE patients compared with HS (SLE: median (IQR) 35.4, HS: median (IQR) 3 (1.5); p=0.01) Concerning the AFC, we found significantly lower values in SLE patients than in HS [SLE: median (IQR) 13.11, HS: median (IQR) 22.5 (10.5); p=0.03]. The Spearman's rank test demonstrated a negative correlation between AFC and BMI (r=−0.5, p=0.02), FSH (r=−0.5, p=0.04) and age (r=−0.5, p=0.02) (figure 1).

Disclosure of Interest: None declared


The preservation of fertility is a crucial point in SLE patients and the evaluation of ovarian reserve should be included in the patients' management in order to assess ovarian function. Moving from these premises, in the present study we demonstrated an impaired ovarian reserve in SLE patients in terms of AFC values and a negative correlation with hormonal and some demographic features.

Disclosure of Interest: None declared

RESULTS

Methods: This was a cross-sectional study of 62 fertile female SLE patients that were divided into two groups including a high UA group (n=27) and a normal UA group (n=35). Serum UA levels, kidney index, SLE disease indicators and levels of oestrogen, oestrogen receptors, antibodies to oestrogen receptors were determined. Multiple linear regression analysis was applied to analyse the association of UA levels with clinical features and levels of oestrogen, oestrogen receptors and antibodies to oestrogen receptors.

Results: 1. The mean ages of the two groups were (28.62±7.89) years and (28.82±8.28) years respectively, with no significantly different (t=0.096, p=0.924). There was no SLE patients manifested renal failure (CRE level higher than 120 mol/L)

2. The mean UA levels of the high UA group and the normal UA group were (531.74±134.05) mol/L and (238.66±61.32) mol/L respectively, with significant difference (t=−11.48, p=0.001).

3. In the high UA group, the levels of CRE, LDL, cystatin, urine protein and were dramatically higher than those were found in the normal UA group (t=−3.617, -3.319, -2.782, -2.979, and p<0.001, 0.002, 0.007, 0.004, respectively), and oestrogen receptor β level were significantly lower than that of the normal group (t=−2.138, p=0.037). The positive rate of urine blood of the high UA group were significantly higher than that of the normal subgroup (2=6.213, p=0.012).

4. Multiple linear regression analysis revealed there were significant relationships between UA level and CRE, oestrogen receptor β, and urine protein, urine blood.

Background: We have found that the incidence of hyperuricemia of young female systemic lupus erythematosus (SLE) patients was higher than that of healthy young women. Why the high level of oestrogen didn’t show protection in uric acid (UA) level of fertile female SLE patients? There few few reports yet.

Methods: To investigate the relationship between UA level and the levels of oestrogen, oestrogen receptors, antibodies to oestrogen receptors were determined. Multiple linear regression analysis was applied to analyse the association of UA levels with clinical features and levels of oestrogen, oestrogen receptors and antibodies to oestrogen receptors.

Results:

1. The mean ages of the two groups were (28.62±7.89) years and (28.82±8.28) years respectively, with no significantly different (t=0.096, p=0.924). There was no SLE patients manifested renal failure (CRE level higher than 120 mol/L).

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Disclosure of Interest: None declared