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Background: Systemic lupus erythematosus (SLE) patients are at high risk for CV events, and EULAR recommends assessing the 10-year CV-risk using the Systematic Coronary Risk Evaluation (SCORE) [1]. The QRISK3, another score to assess CV-risk in UK population, considers different factors among which also SLE. The Progetto Cuore score (PCS) is validated to estimate CV risk in Italian people and largely replicates the SCORE project [2].

Objectives: This cross-sectional study aimed to estimate CV-risk using SCORE, QRISK3 and, for the first time, PCS in a multicentric cohort of Italian SLE patients.

Methods: During 2019 we evaluated 173 SLE patients (87.7% female; age 40±16 years; disease duration 138±105 months), fulfilling the 1997 ACR classification criteria. Clinical and laboratory data were registered, and individual CV-risk was calculated using suitable algorithms for the SCORE, QRISK3 and PCS. Statistical analysis was performed using Graphpad Instat 8.0 (San Diego, CA-USA).

Results: In 13 (7%) SLE patients a previous CV event was recorded. Hypertension was present in 60 (37.5%) and diabetes in 27 (16.9%) patients. Mean total cholesterol was 184±39 mg/dL, HDLc 58±18 mg/dL, LDLc 124±37 mg/dL, triglycerides 105±63 mg/dL; dyslipidaemia was reported in 58 (36.2%) patients and 29 (18.1%) were on statin. Mean BMI was 24.9±5.3 Kg/sm, 60 (37.5%) and 23 (14.3%) patients were overweight and obese, while 25 (15.6%) patients were smokers. 87 (54.3%) SLE patients had a SLEDAI<4, 91% of patients were taken HCQ and 65% were on prednisone (mean dose 5.4±5.9 mg/day), but only 7.5% took >7.5 mg/day. The CV-risk of SLE patients according to SCORE, QRISK3 and PCS was 1.1±2.1%, 10.5±12.3% and 3.7±5.4%, respectively. Stratifying patients at low, moderate or high CV risk according to the PCS and SCORE a double proportion of patients was at moderate (8% vs 3.9%) or high (1.9% vs 0.9%) CV risk (p=0.03). Finally, CV-risk according to QRISK3 was higher than 20% (high risk) in 32/160 (20%) patients.

Conclusion: This multicentre study demonstrated that the mean estimated CV-risk in SLE patients is globally low using the SCORE, QRISK3 and PCS. The PCS seems to better intercept those patients at moderate/high risk, at least in Italian SLE patients, while QRISK3 predicts the highest CV risk. The lack of disease-specific CV-risk factors (such as autoantibodies profile or organ involvement) probably account for the underestimation of CV risk using the SCORE and PCS.

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THU0258

SJÖGREN'S SYNDROME WITH AND WITHOUT AND AUTOIMMUNE THYROIDITIS: IS THERE ANY DIFFERENCE?

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Background: Sjögren's syndrome (SS) is a systemic autoimmune disease mainly affecting exocrine glands and characterized by a progressive lymphocytic infiltration of salivary and lacrimal glands with consequent loss of function and development of sicca symptoms. Autoimmune thyroiditis (AT) is the most frequent autoimmune disease associated with SS and detectable in about 10 - 30% of cases¹. Interestingly, patients with concomitant SS and AT seem to display a

more attenuated phenotype compared to patients with solely SS. It is also noteworthy that up to 30% of patients with AT experience sicca symptoms without a clear diagnosis SS². At the light of these evidences, it is unclear whether SS and AT represent two distinct nosological entities or different expressions of the same pathology.

Objectives: Aim of this study is to evaluate the prevalence of AT in a large monocentric cohort of patients with SS and to define its clinical and laboratory characteristics compared to isolated SS.

Methods: Consecutive patients with SS (AECG criteria) referring to our "Sjögren Clinic" (Sapienza University of Rome) were enrolled and divided in two groups: SS with AT (group 1) and SS without AT (group 2). Group 1 was further divided in two subgroups depending on the presence (1a) or absence (1b) of anti Ro/SSA antibodies. The following clinical and laboratory data were retrospectively collected for all patients: concomitant celiac disease, arthralgia, lung involvement, purpura, lymphoma, presence of ANA, anti-Ro/SSA, anti-La/SSB, rheumatoid factor, cryoglobulins, leukopenia and hypergammaglobulinemia. These characteristics were compared between the following groups: group 1, group 2, group 1a and 1b. For statistic Chi Square and Fisher's test analysis were performed.

Results: Six-hundred and three SS patients were enrolled (group 1 n=135; group 2 n=381; group 1a n=96; group 1b n=39). The prevalence of AT was 135/603 (22.3%). When comparing SS patients with or without AT (group 1 vs group 2) the frequency of rheumatoid factor was significantly higher in group 2 compared to group 1 (p=0.006). No case of lymphoma was recorded in group 1 while 14 cases of lymphoma were ascertained in group 2 (p=0.08). Conversely, celiac disease was higher in group 1 compared to group 2 (p=0.01). No other differences between these groups were identified. Stratifying SS patients with AT according to the presence (group 1a) or not (group 1b) of anti Ro/SSA antibodies, ANA, rheumatoid factor and hypergammaglobulinemia were significantly more positive in group 1a compared to group 1b (p=0.0002, p=0.002, p=0.02, respectively); no clinical differences were identified.

Conclusion: In this study, we confirm the presence of a less aggressive disease in patients with SS and AT compared to solely SS. The higher prevalence of rheumatoid factor and lymphoma occurrence in SS without AT, strictly suggest a more severe phenotype in this subset. Although is known that in SS patients with anti Ro/SSA+ antibodies and RF there is a more aggressive disease, in SS with AT the presence or absence of such autoantibodies do not seem to associate with any difference in clinical severity. Follow up studies are presently being carried out in order to provide conformation of a less severe phenotype and a better disease outcome in patients with associated SS and AT.

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THU0259

LYMPHOMAS IN ANTICENTROMERE ANTIBODY POSITIVE PRIMARY SJÖGREN'S SYNDROME

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Background: Patients with primary Sjögren's syndrome (pSS) are at high risk of lymphoma. Signs of lymphomas in ACA+pSS were not widely reported, the descriptions were single [1, 2]. According to pSS treatment recommendations [3, 4, 5, 6], glandular forms require only symptomatic treatment, in the absence of systemic manifestations systemic therapy is not required.

Objectives: to evaluate the incidence of lymphomas in ACA+pSS; to compare clinical and laboratory manifestations in 2 groups of ACA+pSS: with and without lymphomas.

Methods: we examined 119 ACA+pSS patients. We evaluated both glandular and systemic manifestations. We diagnosed lymphomas based on study of biopsy specimens of affected organs.

Results: MALT-lymphomas diagnosed in 19 (16%) ACA+pSS patients. Persistent enlargement of parotid salivary glands, decreased C4-complement, decreased CD19+cells in peripheral blood, cryoglobulinemic vasculitis, lymphoid infiltration of minor salivary glands (MSG) more than 200 cells in focus, severe xerostomia and xerophthalmia more often detected in patients with ACA+pSS+lymphomas. RF and antiRo were found in only 25% of patients with lymphomas and its

frequency did not differ between groups. Only 20% of patients with lymphoma had monoclonal immunoglobulins secretion and its frequency also did not differ between groups. Anemia, leukopenia, thrombocytopenia, increased ESR, hypergammaglobulinemia, increased levels of immunoglobulins were found in the study groups with the same frequency. There were no differences in the frequency of detection of recurrent parotitis, lymphadenopathy, Raynaud phenomenon, arthritis/arthritis, pleuritis/pericarditis, neuropathy, nephritis, hypergammaglobulinemic purpura.

Conclusion: in the present study in patients with lymphomas, the course of pSS was characterized by minimal systemic manifestations and low immunological activity, but severe glandular manifestations with the development of late stage damages of salivary and lacrimal glands, severe lymphoid infiltration of MSG, which led to the frequent occurrence of MALT-lymphomas. Thus, in patients with pSS, regardless of the type of detected antibodies (antiRo/La, ACA, RF or others), regardless of the presence or absence of systemic manifestations, damage of salivary and lacrimal gland progresses, which in some cases leads to the development of lymphomas, therefore, therapy that can prevent this complication should be initiated immediately after diagnosis of pSS is confirmed. The signs of lymphoproliferation detected in the present study should be evaluated in all ACA+pSS patients for early diagnosis of lymphoma.

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THU0260

GLUCOCORTICOID DOSE IS AN INDEPENDENT PREDICTOR OF MORTALITY IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS HOSPITALIZED FOR INFECTION

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Background: Infection is an important cause of mortality and morbidity in patients with systemic lupus erythematosus (SLE) and a common cause for hospitalization. Glucocorticoids (GC) may contribute to increased mortality.

Objectives: We performed a 10-year retrospective study of SLE patients hospitalized for infection, and the clinical predictors of mortality, especially GC dose, in these patients.

Methods: Diagnosis codes for SLE were obtained from the electronic medical records for hospitalized patients from 2005 to 2015. Chart review was performed to ascertain the indication for hospitalization. The first hospitalization for infection (if any) was used as the index admission. Demographic and clinical characteristics, infection site and immunosuppressive drugs over the past month were abstracted. Multivariable logistic regression was used to determine predictors of all-cause mortality at 1 year.

Results: Diagnosis codes were obtained for 768 unique SLE patients with 3660 hospitalization episodes over 10 years, of which 689 had a physician diagnosis of SLE on chart review. Of these, 250 (36%) had an index admission for infection. 243/250 (97.2%) fulfilled the ACR 1997 criteria for SLE and were studied further (Figure 1). Median (IQR) age was 45.1 (37.3, 56) years, 86% were female, 72% were Chinese, median (IQR) disease duration was 9 (4, 17) years. 53 (21.8%) patients had chronic kidney disease (CKD), 34 (14%) had diabetes mellitus (DM) and 12 (4.9%) had cancer. 231 (95.1%) patients were on immunosuppressive drugs and 210 (86.4%) were on GC. The median (IQR) GC dose was 8 (5, 15) mg oral prednisolone equivalent per day. The median (IQR) Systemic Lupus Erythematosus Disease Activity Index (SLEDAI) score was 4 (1, 10). The most common organism was *Escherichia coli*, followed by *Staphylococcus aureus* and

Salmonella enteritidis. The respiratory tract was the most common site of infection. 27.9% of patients who had blood cultures performed had bacteremia. There were 11 (4.5%) ICU admissions, 6 (2.5%) patients died in hospital and 1-year all-cause mortality was 13 (5.3%). SLEDAI had only a weak positive correlation with GC dose [$R^2 = 0.039$ /Pearson's correlation = 0.197, $p = 0.004$] (Figure 2). Increased age (odds ratio (OR) 1.07, 95% CI 1.02-1.12, $p = 0.005$), average daily GC dose (OR 1.05, 95% CI 1.02-1.09, $p = 0.002$), bone infections (OR 42.24, 95% CI 2.76-646.8, $p = 0.007$) and CKD (OR 4.78, 95% CI 1.06-21.54, $p = 0.04$) were independent predictors of 1-year mortality, after adjusting for gender, SLEDAI, DM, and cancer (Table 1).

Table 1. Predictors of mortality

Factors	Univariable Odds Ratio (95% CI)	P-value	Multivariable Odds Ratio (95% CI)	P-value
Age at admission (years)	1.04 (1.005, 1.07)	0.02	1.07 (1.02, 1.12)	0.005
Average dose of oral prednisolone (mg/day)	1.04 (1.01, 1.06)	0.006	1.05 (1.02, 1.09)	0.002
Gender (female vs male)	3.52 (1.22, 10.12)	0.02	0.37 (0.07, 2.10)	0.26
Disease duration > 10 years	1.27 (0.49, 3.33)	0.62		
Positive blood culture	0.54 (0.17, 1.75)	0.30		
Site of infection	1 (reference)	0.17		0.06
Gastrointestinal				
Respiratory	1.09 (0.28, 4.29)	0.90	0.71 (0.09, 5.57)	0.74
Renal	0.27 (0.03, 2.48)	0.25	0.44 (0.03, 5.94)	0.54
Skin, Gynecological, Other	0.94 (0.25, 3.51)	0.93	1.04 (0.16, 6.74)	0.96
Bone	11.75 (1.29, 107.1)	0.03	42.24 (2.76, 646.8)	0.007
Primary Bacteremia	0.00 (0.00, 0.00)	0.99	0.00 (0.00, 0.00)	0.99
SLEDAI score ≥ 4	1.23 (0.47, 3.21)	0.66	0.65 (0.15, 2.74)	0.56
Diabetes Mellitus	0.46 (0.14, 1.50)	0.20	1.61 (0.31, 8.3)	0.57
Chronic Kidney Disease	0.30 (0.11, 0.78)	0.01	4.78 (1.06, 21.54)	0.04
Cancer	0.18 (0.04, 0.77)	0.02	3.52 (0.25, 48.82)	0.35

Conclusion: Higher dose of oral GC was an independent predictor of mortality, even after adjusting for disease activity. It is important to prescribe the minimum effective dose of GC in SLE patients with infection, especially in older patients with CKD and bone infection.

Figure 1. Selection of cases

Figure 2. Relationship between SLEDAI score and glucocorticoid dose