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THU0275   **IMPORTANCE OF SERUM TITERS OF ANTIBODIES AGAINST DOMAIN 1 OF B2 GLYCOPROTEIN 1**

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Background: There is an increasing interest in the study of domain reactivity of antibodies against β2 glycoprotein I (anti-B2GPI) in patients with antiphospholipid syndrome (APS). Antibodies targeting domain 1 of the molecule (anti-D1) as the most relevant autoantibody subpopulation. Previous information of anti-D1 B2GPI comes from APS cohorts with Caucasian, Asian, and African-American patients. However, there are no studies in Mestizo and Afro-Latin American patients.

Objectives: Our aim was to evaluate the prevalence of Anti-D1 B2GPI antibodies in a cohort of Colombian patients with systemic lupus erythematosus (SLE) with and without thrombosis, primary APS and patients with previous history of recurrent miscarriages (RM) without APS criteria.

Methods: In this cross-sectional study we measured Anti-D1 B2GPI antibodies in a group of patients from Rheumatology Department, Coagulation clinic and Recurrent Pregnancy Loss Program at the Reproduction Group at Hospital San Vicente Fundación and Universidad de Antioquia, respectively, at Medellín, Colombia. Anti-D1 B2GP1 antibodies were tested using a chemiluminescent immunoassay (QUANTA Flash B2GPI IgG, Inova Diagnostics). Mann-Whitney tests were used to compare data.

Results: One hundred and seventy seven (median age 33.5±12.1 years; 89% women) patients were included. One hundred thirty eight patients had SLE (78%), 27 primary APS (15%) and 13 RM (7%). Fifty five (31%) out of 177 patients had history of thrombosis and 41 (23%) of pregnancy losses. Overall, Anti-D1 B2GPI antibodies were positive (>20 CU) in 35 (20%) of patients. Anti-D1 B2GPI were positive in 23%, 17% and 0% of patients with primary APS, SLE and RM, respectively. Overall, serum Anti-D1 B2GPI were significantly higher in patients with than without previous thrombosis (149.1±336.1 vs 16.3±61.8 CU, p<0.0001) and in patients (SLE or primary APS) with previous history of pregnancy losses (40.2±123.1 vs 21.0±74.5 CU, p=0.04). Anti-D1 B2GPI were significantly higher in patients with primary APS vs SLE with thrombosis, and in patients with SLE with thrombosis vs SLE without thrombosis (Figure). No clinical associations were found among Anti-D1 B2GPI antibodies and other APS features.
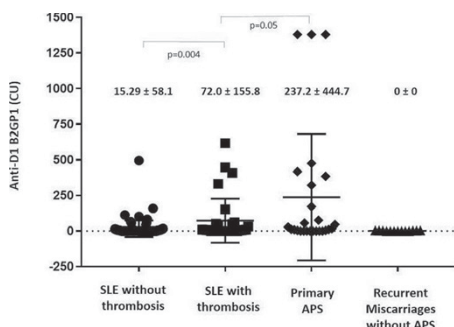

Figure 1. Mean serum levels of Anti-D1 B2GPI in a cohort of 177 patients.

Conclusions: Serum titers of Anti-D1 B2GPI antibodies were more than 9 times and 2 times higher in patients with thrombosis and pregnancy losses, respectively. In addition, serum titers were significantly higher in patients with primary APS than in SLE patients with thrombosis. Whether Anti D1- B2GPI antibodies titers are useful to differentiate patient with primary and secondary APS requires further analysis.

THU0276   **INTERFERON-RELATED CHEMOKINE IP-10 IS A POTENTIAL BIOMARKER IN INCOMPLETE SYSTEMIC LUPUS ERYTHEMATOSUS**

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Background: Incomplete SLE (iSLE) is the designation of patients who display symptoms that are typical for SLE, but with insufficient criteria to fulfil the diagnosis. Unfortunately, predictive biomarkers for SLE development are lacking. Increased IFN-type I production is an important factor in the pathogenesis of SLE. Interferon-regulated chemokines therefore could possibly be useful as biomarkers for disease progression to SLE. Candidate biomarkers IFN-γ induced protein 10 (IP-10) and monocyte chemo attractant protein (MCP-1) have shown to be increased in SLE and to correlate with disease activity.

Objectives: To determine possible candidate biomarkers IFN-γ induced protein 10 (IP-10) and monocyte chemo attractant protein (MCP-1) in patients with iSLE.

Methods: Serum samples were collected of 30 iSLE patients, 29 SLE patients, and 17 ANA-negative patients with histologically proven cutaneous lupus erythematosus (ANCLE). Outcomes were compared with 25 age- and gender-matched controls (CTL) and 31 rheumatoid arthritis (RA) patients as disease control group. Levels of IP-10 and MCP-1 were measured using ELISA.

Results: IP-10 was significantly increased in SLE and RA patients compared with CTL and ANCLE. IP-10 levels were increased in 23% of iSLE patients. These patients had higher SLE disease activity index (SLEDAI) and more frequently decreased C3 level and joint involvement compared to those with normal IP-10 levels. Regarding MCP-1 levels, no significant differences were found between any of the groups and no correlations with clinical markers was found.
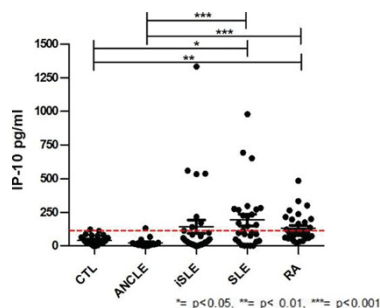
Conclusions: Levels of IP-10, but not MCP-1, might be useful as a predictive biomarker for progression to SLE in patients with iSLE, although future prospective longitudinal analyses are needed to confirm this hypothesis.

THU0277   **REASONS FOR DEFICIENCY OF PHYSICAL INACTIVITY IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS**

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Background: Systemic lupus erythematosus (SLE) is associated with musculoskeletal complaints, fatigue and reduced quality of life. Physical exercise can play a crucial role in the treatment of rheumatic diseases, optimizing both physical and mental health.

Objectives: To characterize physical activity (PA) and its impact on SLE patients.

Methods: 85 SLE outpatients (92% female; age 44.2±12.5; 57.5% with SLEDAI score ≤5, 42.5% with SLEDAI score ≥6) were included in this study. The following questionnaires were utilized: painDETECT, visual analog scale for pain (VAS 0 - 100 mm), short-form health survey (SF - 36, quality of life), the FACIT-Fatigue Scale and the Health Assessment Questionnaire (HAQ - DI). PA was assessed for every patient using the long form of International Physical Activity Questionnaire (IPAQ - LF) and the Metabolic Equivalent of Task (MET) minutes per week (min/wk) (physiological measurement expressing calories of physical activities). The participants were classified in 3 groups according to the PA levels conferring to the guidelines of IPAQ. Physical inactivity was defined as fewer than 150 min/week spent in moderate or vigorous physical activities. Furthermore, the patient reasons "to be not physical active" and their opinion regarding the influence of PA on disease-related symptoms (on a scale of 0–10) were obtained.

Results: 10.6% of SLE patients were physically inactive (525.2±277.3 MET-Min/wk), 31.8% had a moderate physical activity, and 57.6% were physically active. Physical inactivity was associated with higher fatigue (FACIT-F, p<0.04) and lower "vitality" (SF-36, p<0.03) scores. Moreover, the subjective impact of fatigue on PA was significantly higher in physically inactive patients compared to physically active patients (the patient's score: 7.75±1.25 vs. 5.5±0.94, p<0.04). Moderate and severe pain (more than 40 mm VAS) was also associated with physical inactivity (OR 12.38, 95% CI 1.69 to 144.3, p=0.0056). In contrast, HAQ-DI was not related to levels of PA. Although physical inactivity correlated

with a higher total disease activity score (SLEDAI $\geq$6) (OR 9.9, 95% CI 2.1 to 49.9, p=0.0056), neither of the single SLEDAI items and organ manifestations including musculoskeletal manifestations was associated with physical inactivity. Interestingly, the study could not detect any statistical difference in organ manifestations and SLEDAI scores between patients with moderate and high PA. According to the patient's report, the main SLE-related reasons "not to be physically active" for all three groups were "lupus flare" (35.6%), "fatigue" (26.9%) as well as "joint complaints" (15.7%). The main general barriers for PA were "comorbidity" (35,6%) and "lack of motivation" (26,9%). Furthermore, the subjective impact of "bad weather conditions" on physical activity was significantly greater in physically inactive patients compared with the two other groups (the patient's report: 6.58±2.3 vs. 3.49±0.7, p<0.03).

Conclusions: The main reason for the patients not to be physically active was fatigue and pain. The study also indicates that not only somatic symptoms could decrease the levels of PA in SLE patients. Further research on psychological factors is needed. The study underlines the need for management strategies that specifically target physical activity as a part of an overall SLE management program.

Disclosure of Interest: None declared
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THU0278 | **COMPARISON OF THE 2016 ACR/EULAR AND THE 2002 AECG CLASSIFICATION CRITERIA IN A COHORT OF PATIENTS WITH SUSPECTED PRIMARY SJÖGREN'S SYNDROME**

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Background: New consensual classification criteria for primary Sjögren's syndrome (pSS) have been recently developed and endorsed by ACR and EULAR. They differ substantially from previously used AECG criteria in that they consider systemic involvement (defined as ESSDAI score $\geq$1) as well as sicca symptoms as entry criteria before applying a weighted score. Evaluation of the concordance and differences between the two sets of criteria in independent patient populations is mandatory to establish how future clinical studies using the new criteria will be comparable to previously published studies. Major salivary gland ultrasonography (SGUS) has demonstrated promising diagnostic performance in previous studies, but was not included in these new classification criteria.

Methods: This cross-sectional study was conducted in the monocentric Brittany cohort (DIApSS cohort) of patients with suspected pSS (sicca symptoms, parotidomegaly or extraglandular manifestations suggestive of pSS). All patients had standardized clinical examination, basic biology, immunological tests and minor labial salivary gland biopsy. SGUS in mode B was performed by the same experienced operator, who was blinded to the diagnosis. Agreement between the two sets of criteria was assessed using Cohen's κ coefficient and the characteristics of discordant patients were detailed.

Results: 290 patients were prospectively included between 2006 and 2016. Mean age was 55.6±13.2 years, 92.1% were female and mean duration of the symptoms 6.0±6.6 years. More patients fulfilled ACR/EULAR criteria (n=125, 43.1%) than AECG criteria (n=114, 39.3%). 114 patients (39.3%) fulfilled both criteria, 11 (3.8%) fulfilled ACR/EULAR only, 0 AECG only and 165 (56.9%) none of the criteria. Concordance between both criteria was good (kappa=0.9). Compared to patients fulfilling both criteria, patients fulfilling ACR/EULAR but not AECG criteria (n=11) had similar age, similar symptom duration, but less frequent sicca symptoms (eye dryness 18.2% versus 96.5%; mouth dryness 54.5% versus 97.4%, p<0.01 for both), and less frequent salivary gland dysfunction (salivary flow $\leq$0.1 ml/min: 20% versus 70.9%, p<0.01).They had characteristic features of pSS, with frequent systemic involvement at diagnosis (90.9%), positive salivary gland biopsy (90.9%), abnormal SGUS (44.4%) and presence of anti-SSA/SSB autoantibodies (45.4%). 46.5% of them had a diagnosis of pSS according to the physician. Among patients negative for the two sets of criteria, 12% had an abnormal SGUS and 10.3% received a clinical diagnosis of pSS based on physician opinion.

Conclusions: Agreement between AECG criteria and new ACR/EULAR criteria is good suggesting that they select quite similar patients. ACR/EULAR criteria display a slightly higher sensitivity and are able to detect more patients with systemic involvement, but some of these patients did not have pSS according to the physician diagnosis. As previously demonstrated for AECG criteria, SGUS inclusion into ACR/EULAR criteria may further enhance their sensitivity.

Disclosure of Interest: None declared
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THU0279 | **ARE THE PULMONARY INVOLVEMENT IN SYSTEMIC LUPUS ERYTHEMATOSUS ASSOCIATED WITH A HIGHER PREVALENCE OF COMORBIDITIES?**

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Background: Patients with systemic lupus erythematosus have a very high burden of comorbidities. Identification and management of these comorbidities are critical for optimal medical care to this population.

Objectives: To assess the prevalence of comorbidities in SLE patients with pulmonary involvement.

Methods: In a cross-sectional study, patients who fulfiled the SLICC (2012) classification criteria for SLE, were recruited from Rheumatology Departement. Data collection included demographics, disease duration, physician-rated indices of disease activity (by SLAM), damage (by SLICC/ACR DI) and Charlson comorbidity Index. The pulmonary involvement was assessed by chest X-ray, EcoCG Doppler and pulmonary functional tests.

Results: The study included 106 patients (97 women, 9 males) with a mean age (±SD) of 41,1±12,6 yrs, mean disease duration of 90,3±87,3 months. The disease activity by SLAM was 11±5,17 points and mean SLICC/ACR DI 1,9±2,4 points (66% of patients had at least 1 point). Pulmonary assessment revealed that 45 (42,5%) patients had different types of pulmonary involvement due to lupus: pleuritis - 24 patients, pneumonitis – 1 patient, pulmonary embolism – 4 patients, interstitial lung disease – 15, shrinking lung syndrome – 1 and pulmonary arterial hypertension – 9 patients. The most frequent comorbidities in study group were: arterial hypertension - in 57 (53,7%) cases, from which 33 (57,9%) patients had pulmonary involvement and 24 (42,1%) without, obesity (BMI>30 kg/m^2) had 29 (27,4%) patients, from which 17 (58,6%) with lung involvement and 12 (41,4%) without, anemia (Hb<110g/l) had 24 (22,6%) patients, from them 14 (58,3%) with lung disease and 10 (41,7%) patients - without, heart failure (I-II NYHA) had 23 (21,7%) patients, from them 20 (86,9%) were with lung implication, thyroiditis had 22 (20,8%) and 15 (68,2%) of them were with pulmonary involvement, diabetes mellitus type II had only 6 (5,7%) patients and half of them had lung disease. Assessing the impact of associated diseases through Charlson comorbidity index, we found that the score for patients diagnosed with damage to the respiratory system was twice as big vs. patients without respiratory impairment from SLE (6,3±2,4 vs. 3,4±1,4 points). Also, Charlson comorbidity score $\geq$1 was identified as a risk factor for lung involvement (OR 5,5294, 95% CI 2,367 – 12,91, p<0,01). Evaluation of disease activity by SLAM showed that patients with lung involvement have a higher disease activity vs. patients without (13,9±6,0 vs. 8,9±4,0, p<0,05).

Conclusions: On the one hand, according to our results patients with SLE and pulmonary involvement have a higher prevalence of comorbidities comparative with patients without them. Hypertension was found to be the most common comorbidity and it was determined in 73,3% of patients with impaired respiratory system (p<0,01). On the other hand, association of comorbidities (Charlson comorbidity score $\geq$1) was identified as a risk factor for lung lesions.

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Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.6776

THU0280 | **COMPARISON OF CLASSIFICATION CRITERIA FOR SJÖGREN'S SYNDROME FROM 2002 AND 2016 IN AN INCIDENT COHORT DIAGNOSED 2007 TO 2011 FROM STOCKHOLM COUNTY SWEDEN**

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Background: The current American-European Consensus Criteria (AECC) from 2002 has been the most widely used and applied all over the world. New classification criteria for Sjögren's syndrome was published in 2016, designed in a collaboration between ACR and EULAR. They are made up of a scoring system in which 4 points are required for classification. The weight/score is as follows:
- Labial salivary gland biopsy with focal lymphocytic sialadenitis and focus score of $\geq$1 foci/4 mm^2 – 3
- Anti-SSA/Ro positive – 3
- Ocular Staining Score $\geq$5 (or van Bijsterveld score $\geq$4) in at least 1 eye – 1
- Schirmer's test $\leq$5 mm/5 minutes in at least 1 eye – 1
- Unstimulated whole saliva flow rate $\leq$0.1 ml/minute – 1.

Objectives: Comparison of classification criteria for Sjögren's syndrome from 2002 and 2016 in a 5 year cohort of incident patients diagnosed 2007 to 2011 from Karolinska University Hospital, Stockholm County, Sweden.

We wanted to examine the consistency between the different classification criteria.

Methods: We compared a cohort of all diagnosed patients with primary Sjögren's syndrome during the years 2007 to 2011 at the Dep. of Rheumatology at Karolinska University Hospital in Stockholm Sweden. Data on the item Ocular Staining Score $\geq$5 was not available since it is not included in AECC. The cohort consisted of 199 patients all fulfilling the 2002 AECC. Another eight patients did