ASSOCIATION OF COMORBID PULMONARY CONDITIONS WITH PATIENT-REPORTED OUTCOMES IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: Risk of chronic obstructive pulmonary disease (COPD) and allergic conditions, including asthma (AM), is elevated among SLE patients. Both AM and COPD negatively affect quality of life measured through patient-reported outcomes (PROs). Little research has examined the impact of AM and COPD on PROs in SLE, independent of SLE disease status.

Objectives: Determine the impact of AM/COPD on PROs in SLE, concurrently and longitudinally.

Methods: Data from 2 large, longitudinal, observational cohorts were examined (Lupus Outcomes Study, LOS: n=796; National Data Bank for Rheumatic Diseases, Forward: n=2804). AM and COPD were determined at study entry by self-report. PROs included validated scales or items measuring physical functioning, fatigue, pain, cognitive function, depressive symptoms and global severity, although the cohorts included different PROs (Table). Multiple regression analyses examined differences between subjects with and without AM/COPD cross-sectionally, controlling for age, sex, race, lupus duration, education, income, obesity, smoking, other comorbid conditions, and presence or history of renal involvement, clotting disorder or seizures. Longitudinal analyses examined PROs at 3 years (yrs) of follow-up, controlling for covariates above as well as baseline PRO values.

Results: LOS cohort was 92% female, mean age 47 years, 70% white, 42% ever smokers, mean lupus duration 13 years. Forward cohort was 94% female, mean age 51 years, 87% white, 38% ever smokers, mean lupus duration 13 years. LOS and 30% of Forward reported AM/COPD at study entry, compared to 87% and 51% of Forward: n=2804). AM and COPD were determined at study entry by self-report. PROs included validated scales or items measuring physical functioning, fatigue, pain, cognitive function, depressive symptoms and global severity, although the cohorts included different PROs (Table). Multiple regression analyses examined differences between subjects with and without AM/COPD cross-sectionally, controlling for age, sex, race, lupus duration, education, income, obesity, smoking, other comorbid conditions, and presence or history of renal involvement, clotting disorder or seizures. Longitudinal analyses examined PROs at 3 years (yrs) of follow-up, controlling for covariates above as well as baseline PRO values.

Conclusions: AM/COPD are more common in SLE than the general population and are independently associated with worse outcomes on a wide range of PROs, even after controlling for sociodemographic and lupus characteristics. Findings suggest that physicians should screen for pulmonary comorbidities and ensure adequate treatment for these conditions. Future analyses of PROs in SLE should include AM/COPD as important comorbid conditions.

REFERENCES:


Clinical and Immunological Characteristics of Patients with Suspected Sjögren Syndrome and Anti-Ro52 Positive Antibodies

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Background: Anti-Ro52 antibodies have been described in patients with Sjögren syndrome (SS) but there are limited data on their significance, and they are not included in the diagnostic criteria of SS.

Objectives: To analyse the clinical and immunological characteristics of patients with suspected SS and positive anti-Ro52 antibodies, and to assess the diagnostic value of this antibodies.

Methods: Retrospective study of all patients evaluated at our Department between January 2000 and January 2016 for possible SS in which anti-Ro52 abs. were determined. Patients were classified as having SS, according to the 2002

Table: Multivariate Regression Analyses

<table>
<thead>
<tr>
<th>PRO measures</th>
<th>Cross-sectional</th>
<th>Longitudinal</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF-36 Physical Function (PF)†</td>
<td>–9.2 (&lt;0.0001)†</td>
<td>–1.8 (0.26)</td>
</tr>
<tr>
<td>SF-36 Fatigue</td>
<td>6.6 (&lt;0.0001)</td>
<td>2.4 (0.09)</td>
</tr>
<tr>
<td>CESD</td>
<td>1.5 (0.10)</td>
<td>1.7 (0.04)</td>
</tr>
<tr>
<td>MOS Cognitive†</td>
<td>–6.6 (&lt;0.0001)</td>
<td>–3.3 (0.01)</td>
</tr>
<tr>
<td>Forward</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HAQ II</td>
<td>0.2 (&lt;0.0001)</td>
<td>0.2 (&lt;0.0001)</td>
</tr>
<tr>
<td>Fatigue (0–10)</td>
<td>0.7 (&lt;0.0001)</td>
<td>0.8 (&lt;0.0001)</td>
</tr>
<tr>
<td>PHQ8</td>
<td>2.0 (0.01)</td>
<td>1.9 (0.06)</td>
</tr>
<tr>
<td>Pain (0–10)</td>
<td>0.8 (&lt;0.0001)</td>
<td>0.8 (&lt;0.0001)</td>
</tr>
<tr>
<td>Trouble remembering</td>
<td>1.5 (1.2–1.8)</td>
<td>1.2 (1.0–1.5)</td>
</tr>
<tr>
<td>Global severity (0–10)</td>
<td>0.5 (&lt;0.0001)</td>
<td>0.6 (0.001)</td>
</tr>
</tbody>
</table>

†Beta (p value) from multiple linear regression analyses, except Forward ‘trouble remembering’, which is odds ratio (95%CI)
1Lower scores=worse status, otherwise, higher scores=worse status
2CESD=Centre for Epidemiologic Studies Depression scale; HAQ=Health Assessment Questionnaire; PHQ8=Patient Health Questionnaire depression inventory
European-American Consensus Group (EACG) criteria. Statistical analysis was performed using the SPSS vs.20 package.

**Results:** 348 patients (331 women), mean age at diagnosis 56.12±14.19 years (range 22–92), with possible SS were analysed. All patients met the European criteria for SS diagnosis, and 242 the EACG criteria. AAN were positive in 345 (99.4%) patients, RF in 169 (48.4%), anti-Ro60/SSA in 188 (54%), and anti-La/SSB in 11 (32%). Anti-Ro52 abs. were positive in 173 (49.7%) patients: 162 women, 11 men. Of these patients, 154 (89%) also had anti-Ro60/SSA positive abs., 103 (59.5%) anti-La/SSB abs., and 117 (67.6%) positive RF. Anaemia, leukopenia, lymphocytopenia and hypergammaglobulinemia, were significantly more frequent in patients with anti-Ro52 positive abs. The presence of anti-Ro52 abs. was significantly related to the development of lung fibrosis (OR 2.42, 95% CI 1.23–4.75, p=0.007), peripheral neuropathy (OR 2.53, 95% CI 1.1–5.95, p=0.022), arthritis (OR 1.95, 95% CI 1.2–3.35, p=0.0016) and parotitis (OR 3.04, 95% CI 1.75–5.3, p=0.001). A total of 160/173 (92.5%) patients with anti-Ro positive abs. met the EACG criteria. When we analysed the 13 patients with anti-Ro52 positive abs., which did not meet the AECG criteria, these patients presented severe salivary gland scintigraphic involvement, positive ocular test for dry eyes, more hypergammaglobulinemia (OR 6.67, 95% CI 1.95–22.8, p=0.003), more peripheral neuropathy (OR 13.8, 95% CI 2.1–92.7, p=0.0012), more lung fibrosis (OR 13.95, 95% CI 2.1–92.7, p=0.0012), and more risk of lymphoma development (OR 16.72, 95% CI 1.4–199.8, p=0.039), than patients with suspected SS who did not meet the AECG criteria and who had negative anti-Ro52 abs.

**Conclusions:** in our series most patients with anti-Ro52 positive antibodies had also anti-Ro60/SSA positive antibodies and met the AECG criteria. However, there were 13 patients with positive anti-Ro52 abs., which did not meet the AECG criteria. These patients showed similar characteristics to those with positive anti-Ro52 abs. and AECG criteria, and had more risk to develop peripheral neuropathy, lung fibrosis and lymphoma. Our results support that anti-Ro52 antibodies should be included in the diagnostic criteria for SS.

**Disclosure of Interest:** None declared


**THE INCIDENCE OF CARDIOVASCULAR EVENTS IN ITALIAN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS IS LOWER THAN IN NORTH EUROPEAN AND AMERICAN COHORTS: IMPLICATION OF DISEASE-ASSOCIATED AND TRADITIONAL RISK FACTORS AS EMERGED BY A 16-YEAR RETROSPECTIVE GIRRCS STUDY**

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**Background:** Cardiovascular (CV) disease is the leading cause of premature death among Systemic Lupus Erythematosus (SLE) patients1. Several studies have analysed the incidence of CV events in SLE patients. However, the majority of them have been conducted in American and North European countries2–7. At the best of our knowledge, no studies in Italy have considered cumulative incidence and incidence rate of CV events in Italy.

**Objectives:** The present study is devoted to estimate the incidence of a first ever CV event in Italian lupus patients from five rheumatologic tertiary units from North, Centre and South Italy and to search for features associated with and potentially causative of the detected differences.

**Methods:** Clinical charts of SLE patients consecutively admitted to five Italian rheumatologic centres from November 1st 2000 and December 31st 2016 were retrospectively studied. Patients selected were free of CV events at baseline. CV cumulative incidence was evaluated as the proportion of patients who experienced a new CV event over the follow up period. CV incidence rate was expressed as the number of events in the cohort divided by the total number of years at risk. Our incidence was compared with that detected in the Italian general population and those reported in SLE cohorts from other countries.

**Results:** The median duration of follow-up was 6 years (IQR=3–11). During the observational period, 39 (cumulative incidence=7.6%) of the 511 patients had a first CV event with an incidence rate of 10.4/1000 person-years i.e. 12 times higher than in the general population. The CV cumulative incidence detected in our Italian cohort was similar to that reported in the Spanish cohort, but lower than those from North European and American cohorts. The Italian cohort differed from other SLE cohorts in some traditional risk factors (smoke, hypertension, dyslipidemia) and treatment with aspirin and hydroxychloroquine.

**Conclusions:** Our study confirmed the increased CV risk in SLE compared with the general population. However, the incidence of CV events in our SLE series was lower than that detected in North European and American lupus cohorts. These disparities could be ascribed to the differences in the prevalences of traditional CV risk factors among the distinct cohorts. Nevertheless, our CV cumulative incidence was very similar to that detected in the Spanish cohort, despite their higher frequency of traditional risk factors. For this evidence, the geographic (Mediterranean) origin deserves to be considered. On the other hand, the slight difference detected between our series and Baltimore cohort(2) were examined every 3 months) underlines the need of a strict follow-up of the SLE patient.

**REFERENCES:**


**Disclosure of Interest:** None declared