Background: Infectious disease is one of the leading causes of mortality in systemic lupus erythematosus (SLE). Among these infections, invasive fungal infection (IFI) carries high mortality rate (25-70%), but the literature of IFI in SLE is limited.

Table 1. Independent risk factors of IFI in patients with SLE

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>HR (95% CI)</th>
<th>P value</th>
<th>HR (95% CI)</th>
<th>P value</th>
<th>HR (95% CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulin treated</td>
<td>1.77</td>
<td>0.001</td>
<td>2.19 (1.09-4.37)</td>
<td>0.024</td>
<td>1.65 (1.10-1.75)</td>
<td>0.006</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>1.16 (1.06-2.35)</td>
<td>0.006</td>
<td>1.04 (0.50-2.14)</td>
<td>0.924</td>
<td>1.65 (1.10-1.75)</td>
<td>0.006</td>
</tr>
<tr>
<td>End-stage renal disease</td>
<td>1.76 (1.29-2.41)</td>
<td>0.001</td>
<td>2.24 (1.48-3.37)</td>
<td>0.001</td>
<td>1.65 (1.10-1.75)</td>
<td>0.006</td>
</tr>
<tr>
<td>Stroke</td>
<td>1.77 (1.26-2.47)</td>
<td>&lt;0.001</td>
<td>1.65 (1.10-1.75)</td>
<td>0.006</td>
<td>1.65 (1.10-1.75)</td>
<td>0.006</td>
</tr>
<tr>
<td>Mycophenolate mofetil</td>
<td>2.72 (1.60-4.61)</td>
<td>&lt;0.001</td>
<td>4.02 (2.32-6.86)</td>
<td>0.001</td>
<td>3.01 (1.77-5.06)</td>
<td>0.001</td>
</tr>
<tr>
<td>Cyclophosphamide</td>
<td>1.07 (1.26-2.41)</td>
<td>0.001</td>
<td>2.24 (1.48-3.37)</td>
<td>0.001</td>
<td>1.65 (1.10-1.75)</td>
<td>0.006</td>
</tr>
<tr>
<td>Cyclosporin</td>
<td>4.94 (1.61-15.10)</td>
<td>0.005</td>
<td>4.02 (2.32-6.86)</td>
<td>0.001</td>
<td>3.01 (1.77-5.06)</td>
<td>0.001</td>
</tr>
<tr>
<td>Intravenous steroid</td>
<td>2.19 (1.09-4.37)</td>
<td>0.024</td>
<td>1.65 (1.10-1.75)</td>
<td>0.006</td>
<td>1.65 (1.10-1.75)</td>
<td>0.006</td>
</tr>
</tbody>
</table>

All factors with P<0.05 in univariate analysis were selected for Cox multivariate analysis. CI, confidence interval; HR, hazard ratio.

Figure 1. Incidence rate and incidence ratio of invasive fungal infection

Figure 2. Kaplan-Meier curve of invasive fungal infection-free status in SLE versus non-SLE group.
Conclusion: IL-10 (-819 C/T, -592 C/A) and IFNγ (+874 A/T) polymorphism might be related to RA in Japanese population. In addition, TGFβ1 (+869 A/T) polymorphism might be associated with the production of anti-CCP antibody. These results suggest that the analyzing cytokine gene polymorphisms may offer promise as useful factors in the choice of treatment for Japanese RA patients.

Methods: Data of SLE patients evaluated in our centre between 1996-2019 have been retrospectively analyzed. The control cohort included patients with positive antinuclear antibodies of other etiology than SLE, evaluated between 2001-2019. The sensitivity and specificity of the 2019 ACR/EULAR and 2012 SLICC criteria were tested using the McNemar test for correlated proportions.

Results: Four hundred and forty-six patients with SLE (413 women, mean±SD age 40.5±12.7 years, disease duration 10.1±9.2 years) and 67 controls (63 women, mean±SD age 50.4±12.6 years, disease duration 7.6±6.9 years; 29 systemic sclerosis (SSc), 18 mixed connective tissue disease (MCTD), 15 undifferentiated CTD, 2 rheumatoid arthritis (RA), 2 SSC–RA overlaps and 1 dermatomyositis) were included. The specificity of the 2019 ACR/EULAR and 2012 SLICC criteria were similar 85.4% and 83.6 %, respectively (p=0.3). The specificity of the 2019 ACR/EULAR and 2012 SLICC criteria were 70.2 % and 86.6%, respectively (p=0.007). In the SLE group, patients misclassified according to the new 2019 ACR/EULAR criteria were 65, whereas according to the 2012 SLICC criteria were 73; of them, 44 patients did not fulfill any criteria. In the control group, patients misclassified had mainly MCTD (13/20 patients according to the new 2019 ACR/EULAR, and 8/9 according to the 2012 SLICC criteria).

Conclusion: In this real-life cohort, the 2019 ACR/EULAR criteria have a similar sensitivity and lower specificity than the 2012 SLICC criteria, misclassifying especially MCTD patients. These results might be due to the long disease duration cohort.

References:
Disclosure of Interests: None declared
DOI: 10.1136/annrheumdis-2020-eular.3786

FRI0551 PERFORMANCE OF THE 2019 AMERICAN COLLEGE OF RHEUMATOLOGY/EUROPEAN LEAGUE AGAINST RHEUMATISM SYSTEMIC LUPUS ERYTHEMATOUS CLASSIFICATION CRITERIA
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Background: Systemic lupus erythematosus (SLE) is a heterogenous autoimmune disease, with increased morbidity and mortality, often diagnosed in advanced stages. The recently published 2019 American College Of Rheumatology/European League Against Rheumatism (ACR/EULAR) classification criteria for SLE are weighted, hierarchically clustered criteria developed to increase reliability and the identification of early SLE.

Objectives: To compare the sensitivity and specificity of the 2019 ACR/EULAR criteria with the 2012 SLICC criteria in a large single-centre cohort of patients with SLE, diagnosed according to expert opinion.

References:

Disclosure of Interests: None declared
DOI: 10.1136/annrheumdis-2020-eular.2067

FRI0552 GLOBAL, REGIONAL, AND NATIONAL BURDEN OF LOW BACK PAIN, 1990-2019: A SYSTEMATIC ANALYSIS FOR THE GLOBAL BURDEN OF DISEASE STUDY 2019
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Background: Low back pain (LBP) has become a major public health problem worldwide although the burden and underlying causes differ across locations and demographic groups.

Objectives: To report the distribution, trend and risk factor in the burden of LBP from the Global Burden of Disease Study 2019 (GBD 2019).

Methods: Based on GBD 2019, decomposition analyses were performed according to gender, age, geography and sociodemographic index (SDI). The number and age standardized rate of incidence, prevalence and disability adjusted life years (DALYs) with 95% uncertainty intervals (UI) were calculated.

Results: In 2019, female patients have a slightly higher number of prevalence (17%), incidence (15%) and DALYs (16%) than male patients. Out of twenty 5-year age group, the number of incidences, prevalence, DALYs peak at 50-54 age group. From 5 SDI regions, the highest number and age-standardized rate of incidence, prevalence, DALYs were observed in middle and high SDI region, respectively. Considering 21 GBD regions, the highest number of incidence, prevalence, and DALYs were observed East Asia, while the highest age standardized rate of incidence, prevalence and DALYs all found in Central Europe, High-income North America, High-income North America, respectively. In 204 countries and territories, the top 3 highest number of incidence, prevalence and DALYs were from China, India, United States of America. The top 3 highest age-standardized rate of prevalence, and DALYs were China, Georgia, United States of America, Denmark while top 3 highest age-standardized rate of incidence were Poland, Vanuatu, Romania.

From 1990 to 2019, globally, the number of incidence, prevalence, DALYs increased by 50%, 47%, 47% to 223,738,363 (95%UI 197,935,799-253,300,243), 569,089,727 (95% UI 505,632,980-641,256,710), 63,533,528 (95%UI 44,883,714-84,975,210), while age standardized rate of incidence, prevalence and DALYs decreased by 13%, 16%, 16% to 2,750 (95%UI 2,427-3,108), 6,974 (95%UI 6,192-7,662), 778 (95%UI 548-1,043). In 5 SDI regions, low SDI region has the highest percentage increases in number of incidence, prevalence and DALYs, the highest percentage decrease in age standardized rate of incidence, prevalence and DALYs were observed in High-middle SDI. In 21 GBD regions, the highest percentage increase in number of incidence, prevalence and DALYs...