THU0289

CLINICAL COMPARISON OF NEW CRITERIA FOR SYSTEMIC LUPUS ERYTHEMATOSUS IN A COLOMBIAN COHORT


Background: Due to heterogeneity of the disease, there has been several classification criteria for Systemic Lupus Erythematosus (SLE). These have considered the knowledge obtained through the years and have strived for increased sensitivity and specificity. Recently, both EULAR and ACR have proposed new criteria for disease classification that mandate a positive ANA result to apply the criteria.

Objectives: To compare the new 2019 EULAR/ACR classification criteria (1) with the Systemic Lupus International Collaborating Clinics (SLICC) 2012 classification criteria (2) and the American College of Rheumatology (ACR) 1997 classification criteria in a Colombian cohort (3).

Methods: A cross-section retrospective study was done with data collected between 2014 and 2018 from a population diagnosed with SLE by a group of rheumatologists in an autoimmune referral center and followed for one year. The new 2019 EULAR/ACR classification criteria were applied to the information collected from the clinical records. Three sets of criteria were compared using Cohen’s kappa coefficient and concordance was evaluated.

Results: We obtained information for 480 patients, in this analysis were mostly females (96%). Anti-nuclear antibody (ANA) results were available for 95% of the patients. According to SLICC classification criteria the diagnosis of SLE was defined in 92% of patients, 81% by ACR 1997 and 89% using ACR/EULAR 2019. The sensitivity was 93% and 97% for ACR/EULAR 2019 and SLICC 2012, and the specificity was 67% and 48% respectively. The concordance analysis between the two sets of criteria showed agreement of 92% (kappa 0.52 p <0.001) in the whole group.

Conclusion: We found good agreement between SLICC 2012 criteria and EULAR/ACR 2019 classification criteria. In contrast with previous studies, where the new criteria had a sensitivity of 96.1% and specificity of 93.4%, in our cohort the sensitivity was maintained in 93% but the specificity decreased to 67%. A possible explanation could be the ANA negativity that was seen in 5% of the patients and would force to discard patients with false negative results. Despite this, the agreement of the criteria is good and should continue to be applied in our population, without abandoning the expert’s clinical criteria.

References:

THU0270

ONLINE INTERACTION AND FREQUENT SELF-ASSESSMENTS PROMOTED TREAT-TO-TARGET FOR SLE VIA EMPOWERING PATIENTS: A COHORT STUDY FROM CHINA BY SMART SYSTEM OF DISEASE MANAGEMENT (SSDM)

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Background: Treating to target (T2T) is routine in RA, but no comparable standard has been defined for SLE. In 2015, the definition of Lupus Low Disease Activity State (LLDAS) was generated by Asia-Pacific Lupus Collaboration, and the preliminary validity demonstrated its attainment to be associated with improved outcomes in SLE. A SLEDAI-2K score lower than 4 is the main criteria for LLDAS. SSDM is an interactive mobile disease management application, including application systems for both the doctors and patients.

Objectives: To evaluate the patterns of T2T and related influential factors among SLE patients after applying SSDM in real world.

Methods: Patients were trained to master SSDM by healthcare professionals in clinics. The first assessment for SLEDAI-2K was performed as the baseline. Patients were required to perform repeated self-assessments after leaving the clinics. The data is synchronized to the SSDM of authorized rheumatologists. Based on the patients data, rheumatologists will provide medical advices to the patients.

Results: From July 2015 to Jan 2020, 32,559 SLE patients enrolled in SSDM. The mean age is 36.35 years old and median disease duration is 3.85 years. Among them, 1,937 SLE patients from 134 hospitals across China were followed up for more than 12 months, and the demographics were summarized in Table 1.

Table 1.

<table>
<thead>
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<th>Baseline</th>
<th>Final</th>
<th>n</th>
<th>x &lt;= 4</th>
<th>5 &lt;= x</th>
<th>10 &lt;= x</th>
<th>15 &lt;= x</th>
<th>20 &lt;= x</th>
<th>25 &lt;= x</th>
<th>30 &lt;= x</th>
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<tr>
<td>1040</td>
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<td>78.85</td>
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<td>12.98</td>
<td>50</td>
<td>4.81</td>
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<td>230</td>
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<td>54.05</td>
<td>38</td>
<td>17.12</td>
<td>40</td>
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<td>24</td>
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<td>15.41</td>
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<td>14.78</td>
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<tr>
<td>Total</td>
<td>1937</td>
<td>1326</td>
<td>68.46</td>
<td>282</td>
<td>14.56</td>
<td>169</td>
<td>8.72</td>
<td>160</td>
<td>8.26</td>
</tr>
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</table>

The ratio of T2T achievers was 53.69% (1,040/1,937) at the baseline and improved significantly to 68.46% (1,326/1,937) after a 12-month follow-up, p<0.01. Among T2T achievers at the baseline, 78.85% (820/1,040) maintained T2T, and 21.15% (220/1,040) relapsed. Of patients who didn’t achieve T2T at baseline, 56.41% (506/897) of the patients achieve T2T after 12-month follow-up.

The impact of the online interaction and the frequency of self-assessment for SLEDAI-2K on T2T has been analyzed. Compared with 1,475 patients who didn’t interact online with their physicians through SSDM, 462 patients with online interaction achieved higher rate of T2T improvement (19.46% vs 13.29%, p<0.05). The more frequent of the self-assessments being performed by patients, the higher rate of T2T was achieved. The improvement rates of T2T in the subgroups which self-assessed with SSDM by quarterly, bimonthly and monthly were 8.56%, 16.14% and 23.24% respectively. The improvement rate (γ) of T2T was positively correlated with the frequency of self-assessment for SLEDAI-2K(x) independently, r = 0.9998. (Figure 1)

Conclusion: After proactive disease management via SSDM for more than 12 months, the rate of T2T in SLE patients increased significantly. Online interaction between patients and physicians contributed in promoting T2T improvement rate. The patients who performed more self-assessments through SSDM had higher probability of T2T achievement. SSDM is a valuable tool for long term SLE follow-up by empowering patients.