Background: Salivary gland ultrasound (SGUS) is cheap, non-invasive and easy to perform in an outpatient setting. The ACR-EULAR criteria were recently developed to reach international consensus regarding the classification of primary Sjögren’s syndrome (pSS), but SGUS is not yet included as a classification item. Objectives: To assess the performance of the ACR-EULAR criteria when salivary gland ultrasound (SGUS) replaces current items, in a large cohort of patients clinically suspected or diagnosed with pSS in daily clinical practice.

Methods: Included were all consecutive outpatients who underwent SGUS between October 2014 and July 2017 and had a complete data-set on all ACR-EULAR items. Classification according to the criteria was determined separately in patients who were subjected to a labial or parotid gland biopsy. For SGUS, the average score for hypoechoic areas in the parotid and submandibular glands on one side was applied (range 0–3)\(^1\). The optimal cut-off value for our SGUS score was determined using ROC analysis. Clinical diagnosis by the treating physician was used as gold standard. Area under the curve (AUC), absolute agreement, sensitivity and specificity of the original and adjusted ACR-EULAR criteria sets were determined.

Results: Of the 243 consecutive patients, 234 patients had a complete data-set, of whom 147 patients were diagnosed with pSS. Accuracy of SGUS to predict clinical diagnosis was good, with an AUC of 0.88 and optimal cut-off value of >1.5. When applying a weight of 1 point for a positive SGUS, the cut-off value of the ACR-EULAR criteria to discriminate between pSS and non-pSS remained 4, irrespective of the type of biopsy used. In patients who underwent a labial gland biopsy (n=124), the original ACR-EULAR criteria showed an AUC of 0.965 (figure 1A). Absolute agreement with clinical diagnosis was 94.4%, sensitivity was 95.9% and specificity was 92.2%. When SGUS replaced the labial gland biopsy, absolute agreement was 87.9%, sensitivity was 82.2% and specificity was 96.1%. When SGUS replaced anti-SSA antibody status, absolute agreement was 89.5%, sensitivity was 86.3% and specificity was 94.1%. When SGUS replaced the ocular staining score (OSS), Schirmer’s test or unstimulated whole saliva flow (UWS), absolute agreement varied between 89.5%–93.5%, sensitivity varied between 90.4%–95.9% and specificity varied between 88.2%–92.2%. In patients who underwent a parotid gland biopsy (n=198), similar results were found (figure 1B).

Conclusions: SGUS cannot be used as a replacement for salivary gland biopsy or anti-SSA antibody status in the ACR-EULAR criteria because of a substantial reduction in sensitivity. For diagnostic purposes, a high sensitivity is preferred over a high specificity. Replacement of the OSS, Schirmer’s test or UWS by SGUS only resulted in negligible changes in accuracy of the ACR-EULAR criteria. With SGUS being able to replace one of these function tests, clinicians are offered more options that could lead to fulfillment of the ACR-EULAR criteria.

REFERENCE:

Disclosure of Interest: None declared

Abstract SAT0431 – Figure 1. Ultrasound replacing current ACR-EULAR items in patients who underwent a labial gland biopsy (A) or a parotid gland biopsy (B).
Conclusions: In spite of presenting in the context of the same autoimmune systemic disease, PLN and MLN appear to be very different entities, showing significant differences regarding serologic profiles and renal survival.

Disclosure of Interest: None declared


Abstract SAT0433 – Table 1. Definition of Remission according to Doris, Definition of Clinical Remission according to Clinical judgement; Definition of disease pattern. PGA: Physician Global Assessment; cSLEDAI: clinical SLEDAI

<table>
<thead>
<tr>
<th>Definition of Remission</th>
<th>Clinical Items</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remission &quot;off treatment&quot;</td>
<td>DORIS</td>
<td>PGA</td>
</tr>
<tr>
<td>Remission &quot;on treatment&quot;</td>
<td>0 ≤ 0.5</td>
<td>0 ≤ 0.5</td>
</tr>
<tr>
<td>No Remission</td>
<td>≥ 0.6</td>
<td>≥ 0.6</td>
</tr>
<tr>
<td>Definition of Clinical judgement of Remission</td>
<td>Absence of any increase in corticosteroids dosage or any change in immunsuppressants</td>
<td></td>
</tr>
<tr>
<td>Definition of disease pattern</td>
<td>Chronic active (CA)</td>
<td>Persistent disease activity over time with a SLEDAI11 in each visit for at least one year</td>
</tr>
<tr>
<td>Relapsing-remitting (RR)</td>
<td>Characterized by periods of disease activity with cSLEDAI ≥ 5 in different visits for at least one year</td>
<td></td>
</tr>
<tr>
<td>Clinical quiescent (CQ)</td>
<td>Defined as absence of disease activity with a cSLEDAI &lt; 0 for at least one year</td>
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</table>

Conclusions: Nearly 40% of the visits displayed a disagreement between clinical judgement of remission and DORIS remission. This may be attributable mainly to a different approach in evaluating patients: longitudinal by clinical judgement and cross-sectional by DORIS. As compared to clinical judgement of remission, the DORIS definition is not designed to capture “low disease activity”, particularly patients who carry a PGA between 0.5 and 1 and those who require a medium dosage of steroids in the frame of a CA pattern.

REFERENCE:

Disclosure of Interest: None declared


Abstract SAT0434 – Figure 1. Items are responsible of disagreement between DORIS and Clinical definition of Remission

Conclusions: Participation of chronically ill patients can be permanently and severely impaired. In a heterogeneous disease like systemic lupus erythematosus (SLE), various influencing factors such as disease activity, damage, concomitant diseases, but also detrimental effects due to the psychological burden must be considered.

Objectives: Our objective was to assess the current state of participation in a representative sample of German patients with SLE and evaluate the impact of demographic and clinical factors.

Methods: The Lupus erythematosus long-term study (LuLa-Study), a nationwide longitudinal study among German Caucasian patients with SLE, is being