AB0565  
CHANGES IN HEALTH RELATED QUALITY OF LIFE IN RENAISSANCE COHORT OF RUSSIAN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: The Lupus Quality of Life (LupusQol) is recommended to assess health related quality of life (HRQOL) in systemic lupus erythematosus (SLE).

Objectives: The aim of the current study was to assess HRQOL in the first year observation in cohort of patients with systemic lupus erythematosus in Russian Federation (RENAISSANCE).

Methods: The LupusQol-Russian was administered to a cohort of 128 Russian patients affected with SLE at baseline and follow up visit (in 12 months). Disease activity was evaluated by the SLE disease activity index-2000 (SLEDAI-2K), and chronic damage by the Systemic Lupus International Collaborating Clinics Damage index score (SDI) at baseline and follow up visit.

Results: 128 patients (118 (92%) women; aged 33.02±11.04 years, mean disease duration 100.68±84.3 months) were included. At baseline mean SLEDAI 2K was 11.2±8.5, mean SDI = 1.3±1.6, mean daily prednisolone 16.8±10.9 mg/day). For 12 months all patients received standard therapy according SLEDAI 2K and their clinical manifestations (prednisolone 100%, Hydroxychloroquine 72.4%, Mycophenolate mofetil 25%, Cyclophosphamide 17%, Azathioprine 12.5%, Rituximab 27.3%, belimumab 12.5% pts). At follow up visit SLEDAI 2K score significantly improved up to 6.9±4.93 (p<0.000029), SDI significantly worse up to 1.7±1.9 (p<0.04), mean daily prednisolone significantly reduced up to 12.2±7.3 mg/day(p<0.04). All 8 subscales LupusQol showed improvement in the 12 months versus baseline (table 1).

Conclusions: The LupusQol-Russian is sensitive to change in SLE patients with active SLE. The HRQOL correlated with disease activity, daily prednisolone and biologic.

Disclosure of Interest: None declared


AB0566  
ANTI-PHOSPHOLIPID ANTIBODIES SERO-NEGATIVIZATION IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS TREATED WITH BELIMUMAB

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Background: Belimumab is a monoclonal antibody that blocks the B lymphocyte stimulator, preventing it to bind its receptor on B-lymphocyte’s surface, thus avoiding B cell activation. Despite some benefits showed in murine models of anti phospholipid syndrome (APS), the use of belimumab in this condition needs further investigation.

Objectives: To investigate changes in the antiphospholipid antibodies (aPL) profile in Systemic Lupus Erythematosus (SLE) patients treated with belimumab.

Methods: We retrospectively collected data from patients who attended the S. Giovanni Bosco Hospital, Turin, Italy. Inclusion criteria comprised: a) fulfilled ACR criteria for SLE; b) persistent aPL positivity (confirmed ≥3 occasions over a time ≥24 months before belimumab treatment); c) previous or ongoing belimumab therapy.

Results: This retrospective study included 3 patients with diagnosis of SLE [median age 39(range 33–51), male:female 2:1]. Table 1 resumes the characteristics of patients. All 3 patients received belimumab because of SLE flares. Before the treatment, Patient#1, classified as SAPS,[2] presented a persistent triple positivity for lupus anticoagulant (LA), high-titer aCL IgG type (>200 GPL) and anti-2GPIcoprotein 1 antibodies (>50 GPL) (anti-2GPI) IgG isotype. Patient#2 was persistently positive for IgG aCL and IgM anti-2GPI (both 20–30 GPL and MPL, respectively; cut-off >7U), and had a history of pregnancy morbidity. Patient#3, classified as SAPS, presented positivity of LA and IgG ACL (10–20 GPL).

After 12 months since belimumab was started, a marked reduction of aPL was noticed, as follows. Patient#1 became negative for anti2GPI, while its aCL titer significantly decreased. Anti-2GPI and aCL both turned negative in Patient#2. After being on belimumab for one year, she planned a pregnancy and she stopped the treatment; after 8 months since suspension, IgG anti2GPI antibodies were detectable (cut-off >3.5 U). Patient#3 was persistently negative for aCL while being on belimumab. When he discontinued the therapy, IgG aCL antibodies returned positive. Figure 1 illustrates aPL titers of the 3 patients in relationship with belimumab therapy.

Table 1. Characteristics of the patients included in the study

<table>
<thead>
<tr>
<th>Patient#</th>
<th>Sex</th>
<th>Age</th>
<th>Diagnosis</th>
<th>Associated Autoimmune Disease</th>
<th>aPL positivity</th>
<th>Clinical Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient#1</td>
<td>M</td>
<td>51</td>
<td>SAPS</td>
<td>SLE</td>
<td>LA, aCL IgG, 2GPI IgG</td>
<td>Sub-poplitic arthritis</td>
</tr>
<tr>
<td>Patient#2</td>
<td>F</td>
<td>33</td>
<td>aPL carrier</td>
<td>SLE</td>
<td>aCL IgG, anti-2GPI IgM</td>
<td>2 miscarriages &lt;10 th week of gestation</td>
</tr>
<tr>
<td>Patient#3</td>
<td>M</td>
<td>39</td>
<td>SLE</td>
<td>LA, anti-2GPI IgG</td>
<td>3 episodes of TVP, severe thrombocytopenia</td>
<td></td>
</tr>
</tbody>
</table>

Conclusions: Despite its limitations, this pilot study is the first report of aPL negativization after starting therapy with belimumab. The clinical relevance of these findings should be investigated in prospective multicenter studies.

REFERENCES:
**AB0567**

**CLINICAL SIGNIFICANCE OF THE DETECTION OF HLA-DRB1 ALLELES IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS**

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**Background:** Associations between clinical manifestations of systemic lupus erythematosus (SLE), presence of antiphospholipid antibodies (aPL) and HLA-DRB1 alleles have been established, these associations however need clarification.

**Objectives:** Clarify the associations between clinical features of APS in patients with SLE and the presence of aPL and the HLA-DRB1 alleles.

**Methods:** 79 SLE patients were enrolled in the study (MF: 7/72; mean age 11.0 years, range (18,0;78,0). The main group consisted of 41 aPL carriers (28 of them with antiphospholipid syndrome (APS)), a comparison group consisted of 38 aPL-negative SLE patients. The groups were comparable in age and SLE activity.

ELISA was used to test for aPL. Lupus anticoagulant (LA) was evaluated using the DRVV test method. The HLA-DRB1 alleles were identified using HLA-typing.

**Results:** While comparing both groups, HLA-DRB1*03 allele was found significantly less frequently in aPL-carriers group (p=0.04). In aPS group, HLA-DRB1*08 allele was present significantly more often (p=0.002), both HLA-DRB1*03 and *15 alleles were found significantly less often (p=0.008) in comparison with the aPL-negative group.

SLE patients with HLA-DRB1*16 allele were more likely to develop an early pregnancy loss (OR=19, p=0.04), patient with HLA-DRB1*11 allele – more likely to develop a fetal loss (OR=4.9, p=0.04) in comparison with other alleles; in patients with HLA-DRB1*01 allele both early pregnancy loss and fetal loss occurred less often (OR=0.18, p=0.04; OR=29, p=0.04) compared with other alleles. The highest level of anti-double-stranded DNA was found in patients with HLA-DRB1*13 allele (Me=54, [17.0, 290.0] IU/ml, p=0.005), and lowest level – in patients with HLA-DRB1*04 (Me=0.15, [0.0; 14.2] IU/ml, p=0.005).

In the group of aPL carriers significant correlations between the HLA-DRB1*08 allele and elevated level of anticoagulopin antibodies (aCo) IgM (r=-0.42, p=0.005) and anti-annexin V antibodies IgG (r=0.3, p<0.01), between HLA-DRB1*04 allele and elevated level of aCL IgG (r=0.31, p=0.008), between the HLA-DRB1*12 allele and an elevated level of anti-annexin V antibodies IgM (r=0.31, p=0.01) were found.

Correlations between HLA-DRB1*16 allele and early pregnancy loss (p=0.07, p<0.001), between HLA-DRB1*11 allele and fetal loss (p=0.30, p=0.001) were observed.

**Conclusions:****

1. HLA-DRB1*08 allele is a risk factor for the development of APS in SLE patients.
2. HLA-DRB1*03 and *15 alleles were more often detected in aPL-negative SLE patients.
3. The presence of HLA-DRB1*16 and *11 alleles in SLE patients is a risk factor for the development of obstetric complications.
4. In the group of aPL carriers significant correlations between HLA-DRB1 alleles and elevated levels of aPL were found.
5. SLE patients with HLA-DRB1*01 were less likely to develop any obstetric complications.

**Disclosure of Interest:** None declared

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**AB0569**

**RELATIONSHIP BETWEEN THE LEVELS OF VITAMIN D AND THE ACTIVITY IN SYSTEMIC LUPUS ERYTHEMATOSUS IN DOMINICAN REPUBLIC**


**Background:** 25 (OH) D is a steroid prohormone that participates in calcium homeostasis and bone health. Nonclassical functions of this vitamin have been described in a variety of cells of the body and the adaptive immune system. Currently, the immunomodulatory role of 25 (OH) D in Systemic Lupus Erythematosus (SLE) continues in debate. In addition, a correlation between non-optimal levels of 25 (OH) D and disease activity has been observed. In the SLE, there is a high prevalence of non-optimal levels of vitamin D. A prevalence of 25 (OH) D insufficiency of 15% to 75% is reported.

**Objective:** To determine the relationship between vitamin D levels and disease activity in SLE.

**Methods:** It is a prospective, cross-sectional study, in all patients who attended the rheumatology clinic of the Hospital Docente Padre Billini in the period August – October 2017, where the levels of vitamin D and activity of the disease were measured with SELENA-SLEDAI (≥3 without activity, 3–12 moderate activity, ≥12 high activity). Vitamin D deficiency is defined as serum levels of 25 (OH) D <10 ng/ml, insufficiency levels serum levels of 25 (OH) D >10 <30 ng/ml. Inclusion criteria: all patients with at least 18 years of age who met the SLE SLICC 2012 classification criteria were included with determination of vitamin D and calcium.

**Results:** 45 patients who met criteria SLE SLICC 2012 were included. 97.7% (44) were women. The most frequent age range was 31–45 years. 24.4% (11) had decreased calcium values. The vitamin D values were insufficient in 77.7% (35) of the patients and deficient in 4.4% (2) According to SELENA-SLEDAI, 77.7% (35) had no activity of the disease, 20% (9) had moderate activity and 2.2% (1) had insufficient vitamin D levels.