Conclusion: SMI in our SLE-cohort was correlated with age, vascular risk factors, severe organ involvement, aPLs and steroid use. Only antimalarials were associated with a lower mean SMI. SMI increases significantly with longer follow-up time, especially after the fifth year of follow-up. Prevention and early treatment of the aforementioned risk factors could avoid irreversible organ accrual damage in lupus.

REFERENCES:

Disclosure of Interests: None declared.


AB0490
INFLAMMATORY MUSCULOSKELETAL ABNORMALITIES BY CONTRAST ENHANCED MRI SHOW A SPECIFIC PROFILE IN SLE PATIENTS

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Background: Joint involvement in SLE is the most frequent manifestation and often it is the first clinical symptom. Despite this, it is not well characterised and demographic, serological and clinicotherapeutic correlations have not been well established.

Objectives: We aim to determine if there is a demographic, clinic or serological profile related to inflammatory joint involvement of hand and/or wrist (sinovitis, bone marrow edema, erosions, tensosynovitis or peritendinitis) confirmed by contrasted MRI in SLE patients.

Methods: Consecutive SLE patients fulfilling SLICC criteria both symptomatic and asymptomatic for joint involvement were recruited. Contrast MRI of non-dominant hand/wrist was performed for joint and tendon evaluation. Socio-demographic, clinicotherapeutic and serological data were collected and statistically analysed along with each MRI abnormality.

Results: 83 subjects were recruited. Erosions and synovitis were more frequent at advanced age (55±12.61 vs 45.06±12.18 years, p = 0.001 and 52.78±12.99 vs 44.95±12.49 years, p = 0.011). Synovitis is less frequent in patients with renal involvement (6.7% vs 24.3%, p = 0.031). No other SLE organ-specific involvement showed statistical correlation. Neither SLE related autoantibodies (ANA, DADs, Sm, RNP, Ro, La, antiphospholipid), complement fractions, ESR nor CRP correlated with MRI lesions, except for erosions which showed lower DNAds titers (15.94±49.56 vs. 48.3±42.58, p = 0.028); patients with synovitis reported higher levels of pain in EN (32.3±0.82 vs 35.1±0.64, p = 0.035) and patients with tensosynovitis showed worse FSS-9 (50.0±17.6 vs 47.5±16.0, p = 0.015) versus patients who did not show these abnormalities by MRI. Patients with synovitis and peritendinitis had a worse HAG (1.14±0.69 vs 0.75±0.65, p = 0.031; 0.69±0.7 vs 0.6±0.9, p = 0.018).

Conclusion: SLE patients with joint and/or tendon involvement confirmed by contrast enhanced MRI have a worse HRQoL measured by pain, fatigue and functional disability.

REFERENCES:

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AB0492
INTESTINAL MICROBIOLOGICAL DISORDER CLOSELY ASSOCIATED WITH PERIPHERAL LYMPHOCYTE SUBSETS AND CYTOKINES IN SYSTEMIC LUPUS ERYTHEMATOSUS.

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Background: Systemic lupus erythematosus (SLE) is an autoimmune disease characterized by widespread inflammation and tissue damage in multiple organs[1]. Microbiome is one of environmental factors that has been suggested to contribute to the occurrence and development of SLE[2].

Objectives: This study aims to the understanding of the pathogenesis of SLE from the perspective of intestinal microorganisms and investigate the associations between flora and peripheral lymphocyte subpopulations and cytokines in SLE patients.

Methods: Fecal samples were collected from 96 patients with SLE, and 96 sex- and age-matched healthy controls (HCs). The gut microbiota were investigated via 16s rRNA sequencing and the peripheral T lymphocyte subsets of these participants were assessed by flow cytometry. Indicators of disease activity such as erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), complement C3 and C4 were recorded. Differential abundance analysis was carried out using the edgeR algorithm. The Wilcoxon rank-sum test was used to compare alpha diversity indices, bacterial abundances, and the F/B ratio between groups. R (version 4.0.1) was used for comparative statistics, and pearson’s correlation analysis was used to assess the correlations between the relative abundances of bacterial genera and serum levels of ESR, CRP, C3 and C4 in the samples; correlations with p < 0.05 were considered significant.

Results: The alpha estimators of richness (ACE and Chao 1) were significantly reduced in SLE feces samples compared with those of HCs (p < 0.001). Bacterial diversity estimators, including the Shannon (p < 0.001) and Simpson’s (p < 0.01) indices, were also significantly lower in SLE (Figure 1A-D). The micro-bial community structures of the SLE and HCs could be separated by unweighted UniFrac-based principal coordinates analysis (PCoA) (R = 0.186, p < 0.001) (Figure 1E). Significant differences in gut microbiota composition between SLE and HCs were found using the edgeR algorithm. Compared with HCs, 24 species of flora were discovered to be distinctly different (p < 0.05). Moreover, there was a significant positive correlation between Tregs and Cytobacterium.
Factors Associated with Suicidal Ideations in Systemic Lupus Erythematosus and Antiphospholipid Syndrome Patients

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Background: Suicidal ideations in systemic lupus erythematosus (SLE) and antiphospholipid syndrome (APS) patients are associated with stress related depressive and anxiety disorders and can lead to higher mortality rates.

Objectives: To describe the rates and potential causes of suicidal ideations in SLE and APS patients.

Methods: 159 patients (62 with SLE, 49 with SLE and secondary APS, 48 with primary APS (PAPS)), mostly women (120 (75.5%)), were consecutively enrolled in the study. The mean (M±SD) age was 37.5±12.2 years. SLE activity was measured by SLEDAI. Suicidal ideations and mental disorders were detected by psychiatrist in semi-structured interview. The severity of mental disorders was measured with MADRS, HADS, PHQ-9, PSS10, and quality of life with EQ-5D, LupusQoL.

Results: The majority of patients had mental disorders (149 (93.7%)) with a predominance of anxiety and depressive spectrum (143 (89.9%)). Anxiety and depressive disorders in remission were diagnosed in 7 (4.40%) patients. Suicidal ideations in the past were revealed in 20 (12.6%) patients: in SLE - 9 (14.5%), SLE + APS - 8 (16.3%), PAPS - 3 (6.25%); suicidal attempt – in 1 (0.63%) patient with SLE + APS; autoaggressive behavior – in 11 (6.92%) patients (mainly presented as discontinuation of treatment in 10 (6.29%) patients): 6 (9.68%) - SLE, 4 (8.16%) - SLE + APS, 1 (2.08%) - PAPS. Current suicidal ideations were found in 16 (10.1%) patients: SLE - 5 (8.06%), SLE + APS - 5 (10.2%), PAPS - 6 (12.5%). The patients with suicidal ideations had higher depression (according to MADRS, HADS, PHQ-9) and anxiety (according to HADS) severity, they also presented with higher rates of stress perception (PSS-10) and poorer life quality (EQ-5D, LupusQoL). The APS duration was significantly longer in patients with suicidal ideations; no differences in activity, severity and duration of SLE or steroid therapy were found, but SLE patients with current suicidal ideations compared to patients without them were 2 times more likely to receive rituximab (Table 1).

Conclusion: Suicidal ideations in SLE/APS patients are mainly caused by anxiety-depressive spectrum disorders provoked by stress factors, no associations with the duration, activity and manifestations of the rheumatic diseases were found. Timely identification and therapy of depressive and anxiety spectrum disorders can prevent suicidal ideations and possible poor outcomes.

Disclosure of Interests: None declared


Table 1. Description of patients with/suicidal ideations.

<table>
<thead>
<tr>
<th>Characteristic, Me [25%; 75%]</th>
<th>With current suicidal ideations (n=16)</th>
<th>Without current suicidal ideations (n=143)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>SLE</td>
<td>5</td>
<td>31.3</td>
</tr>
<tr>
<td>SLE + APS</td>
<td>5</td>
<td>31.3</td>
</tr>
<tr>
<td>APS</td>
<td>6</td>
<td>37.4</td>
</tr>
<tr>
<td>SLE duration, months</td>
<td>156.0 [132.0; 216.0]</td>
<td>84.0 [24.0; 68.0]</td>
</tr>
<tr>
<td>APS duration, months</td>
<td>228.0 [204.0; 348.0]</td>
<td>120.0 [48.0; 180.0]</td>
</tr>
<tr>
<td>MADRS</td>
<td>270.0 [196.0; 315.0]</td>
<td>130.0 [80.0; 180.0]</td>
</tr>
<tr>
<td>HAM-A</td>
<td>18.5 [10.5; 25.5]</td>
<td>15.0 [10.0; 21.0]</td>
</tr>
</tbody>
</table>
| HADS                          | -depression | 7.0 [3.0; 9.0] | 3.0 [1.0; 6.0] | 0.009
|                              | anxiety     | 9.0 [5.0; 14.0] | 6.0 [3.0; 9.0] | 0.04
|                              | PHQ-9       | 12.0 [8.0; 15.0] | 6.0 [3.0; 12.0] | 0.02
|                              | PSS-10      | 32.7±8.73 | 27.6±6.50 | 0.006
|                              | EQ-5D       | 0.56±0.29 | 0.72±0.22 | 0.009
|                              | Lupus QoL   | 113.7±24.9 | 132.0±25.8 | 0.02
| Methylprednisolone intake:    | -Current dose, mg/day | 10.0 [9.0; 22.5] | 10.0 [5.0; 15.0] | n/s
|                              | -Cumulative dose, g | 16.9 [9.0; 61.2] | 72.0 [28.9] | n/s
| Rituximab treatment          | 5 | 31.2    | 26 | 18.2    |

Case Description: 

Suicidal ideations in SLE/APS patients are mainly caused by anxiety-depressive spectrum disorders provoked by stress factors, no associations with the duration, activity and manifestations of the rheumatic diseases were found. Timely identification and therapy of depressive and anxiety spectrum disorders can prevent suicidal ideations and possible poor outcomes.

Disclosure of Interests: None declared