AB0591
SLE RES PONDER INDEX (SRI) UNDERESTIMATES CLINICAL RESPONSE IN MUSCULOSKELETAL SYSTEMIC LUPUS ERYTHEMATOSUS

K. Mahmoud1,2, A. Zayat1,2, M.Y. Md Yusof1,2, E. Hensol1,2, P.G. Conaghan1,2, P. Emery3,2, E. Vith3,2. 1Leeds Institute of Rheumatic and Musculoskeletal Medicine, University of Leeds, University of Leeds; 2NIHR Leeds Biomedical Research Centre, Leeds Teaching Hospitals NHS Trust, LEEDS, UK

Background: Musculoskeletal (MSK) manifestations are common in SLE. Many recent clinical trials were negative or had small benefits vs. placebo. SRI is a common primary endpoint but has not been independently validated. Ultrasound is an objective measure of synovitis validated in inflammatory arthritis.

Objectives: To compare the responsiveness of clinical outcome measures with ultrasound in MSK-SLE.

Methods: 20 SLE patients meeting SLICC 2012 criteria with inflammatory MSK symptoms were studied with clinical assessment (BILAG2004, SLEDAI-2K over 30 days, patient and physician VAS, symptomatic, tender and swollen joint counts in 28 joints) and MSK ultrasound (grey scale and power Doppler scores, number of abnormal joints) at 0, 2, and 4 weeks after 120 mg IM depomedrone. Change in each variable was measured using Wilcoxon matched pairs and effect sizes (r=Z/C0).

Results: All patients were ANA positive, CCP negative and female. At baseline, 15/20 had clinical synovitis. The others had either ultrasound synovitis (GS in 18/20, PD in 17/20) or >60 min EMS. 19/20 patients scored 4 points on SLEDAI for MSK and 15/20 had clinical synovitis. The others had either ultrasound synovitis (GS in 18/20, PD in 17/20) or >60 min EMS. All patients were assessed with clinical assessment (BILAG2004, SLEDAI-2K over 30 days, patient and physician VAS, symptomatic, tender and swollen joint counts) at 0, 2, and 4 weeks after 120 mg IM depomedrone. Change in each variable was measured using Wilcoxon matched pairs and effect sizes (r=Z/C0).

Conclusions: In MSK-SLE, ultrasound was the variable most consistently sensitive to change. All commonly used clinical variables significantly improved by week 4 but there was variation in responsiveness between them. BILAG-2004 and physician VAS had similar responsiveness to ultrasound. SRI-4 underestimated response, with substantial objective improvements in synovitis in SRI-4 non-responders. Developing organ-specific outcome measures may improve the ability to measure treatment effects in SLE clinical trials.

Disclosure of Interest: None declared

AB0592
IMPAIRMENT IN HAND STRENGTH, DEXTERTY AND ACTIVITIES OF DAILY LIVING PERFORMANCE IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS: RESULTS OF A CROSS-SECTIONAL STUDY

K. Keramidou1, C. Anagnostou2, A. Galanos3, P. Sklakis1, M.G. Tektonidou1. 1First Department of Propaedeutic and Internal Medicine, Medical School, National and Kapodistrian University of Athens; 2General Hospital of Efstissi Thrasio; 3Medical School, National and Kapodistrian University of Athens, Athens, Greece

Background: Systemic lupus erythematosus (SLE) is a prototypic autoimmune disease affecting multiple systems. To date a small number of studies have assessed the hand function and performance of daily activities in SLE1.

Objectives: To examine the grip and pinch hand strength, the dexterity, and the performance of Activities of Daily Living (ADL) in SLE patients compared with healthy controls.

Methods: 197 SLE patients (48.03±12.76, 88.3% female) and 100 healthy controls (47.87±12.77, 86% female), matched by age and gender, were enrolled in the study. Both groups were assessed by hand grip and pinch grip strength, dexterity and ADL performance tests. Hand grip strength was measured by Jamar dynamometer, and pinch grip strength by pinch gauge, in both hands. Dexterity was measured by Purdue pegboard test. Disabilities of the Arm, Shoulder and Hand (DASH) questionnaire and Health Assessment Questionnaire (HAQ) were used in order to determine the difficulties in ADLs.

Results: Hand grip strength, both lateral and jaws pinch grip strength, and dexterity, were significantly impaired (p<0.001) in both hands of SLE patients compared with healthy subjects (table 1). DASH questionnaire (19.78±20.93 vs 2.43±2.9, p<0.001) and Health Assessment Questionnaire score (HAQ) (0.41±0.52 vs 0.03 ±0.52, p<0.001) were also significantly different between SLE patients and healthy controls.

Abstract AB0592 – Table 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>Patient group</th>
<th>Control group</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grip Strength</td>
<td>25.59±9.12</td>
<td>30.89±9.00</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Tip to tip Pinch Strength</td>
<td>3.94±1.03</td>
<td>4.25±1.85</td>
<td>0.194</td>
</tr>
<tr>
<td>Lateral Pinch Strength</td>
<td>6.03±2.12</td>
<td>7.24±1.85</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Jaws Pinch</td>
<td>4.68±1.99</td>
<td>5.86±1.93</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Purdue Score</td>
<td>13.09±2.58</td>
<td>14.28±2.58</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

All values are presented as mean ±SD

Conclusions: These findings demonstrate that SLE patients have lower grip, pinch strength and dexterity and more difficulties in ADL performance. These findings underline the need to develop specific hand therapy programs for SLE patients.

REFERENCES:

Disclosure of Interest: None declared
AB0593  
PREDICTORS OF FATIGUE AND SEVERE FATIGUE IN A LARGE MULTICENTER INTERNATIONAL COHORT OF PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS: THE FATILUP STUDY
L. Arnau1, P.-E. Gavard2, Z. Amoura2, G. Blaison4, R. Voit4, A. Schwartzingt, N. Magy Bertrand7, F. Maurier7, J.-L. Pennaforte7, V. Poindron7, P. Kieffer7, B. Bonnotte7, H. Lorentz7, C. Flehim7, J. Sibilia7, T. Martin7, on behalf of LLBR working group. 1Rheumatology, 2Clinical immunology, CHRU Strasbourg, Strasbourg; 3Clinical immunology, APHP, Paris; 4Internal medicine, CH Colmar, Colmar, France; 5Rheumatology, uniklinik, Freiburg; 6Internal medicine, Acura Rheumatology Center Rhineland Palatinate, Bad Kreuznach, Germany; 7Internal medicine, CHU Besancon, Besancon; 8Internal Medicine, CH Metz, Metz; 9Internal Medicine, CHU Reims, Reims; 10Internal Medicine, CH Mulhouse, Mulhouse; 11Internal Medicine, CHU Dijon, Dijon, France; 12University of Heidelberg, Heidelberg; 13Unit for Rheumatology and Clinical Immunology, Medical Center Baden-Baden, Baden-Baden, Germany

Background: Fatigue is an important issue in systemic lupus and has a major impact on quality of life of the patients. Data are controversial about the factors associated with this complex symptom.1

Objectives: To identify the factors associated with fatigue and severe fatigue in patients with systemic lupus erythematosus (SLE) in a large cohort using a multivariate model to precise the importance of each parameter in this multidimensional symptom.

Methods: We used the LLBR data base, a German French data base of SLE patients. All patients fulfilled the 1997 ACR criteria for SLE. The Fatigue Scale for Motor and Cognitive Functions (FSMC) was used to assess fatigue and severe fatigue. The depression and anxiety were measured with Hospital Anxiety and Depression Scale (HADS). Tests were performed at sampling.

Results: A total of 570 patients were included (89.1% female). The median age was 42 years (QR25–75: 34–52). The median value of the SELENA-SLEDAI was 2 (QR25–75: 0–4) and 136 patients had a SELENA-SLEDAI score ≥6. Fatigue was reported by 386 patients (67.7%) including severe fatigue by 209 (36.7%). In 11Internal Medicine, CHU Besançon, Besançon; 12Internal Medicine, CH Metz, Metz; 13Internal Medicine, CHU Reims, Reims; 14Internal Medicine, CH Mulhouse, Mulhouse; 15Internal Medicine, CHU Dijon, Dijon, France; 16University of Heidelberg, Heidelberg; 17Unit for Rheumatology and Clinical Immunology, Medical Center Baden-Baden, Baden-Baden, Germany

Background: Fatigue is an important issue in systemic lupus and has a major impact on quality of life of the patients. Data are controversial about the factors associated with this complex symptom.1

Objectives: To identify the factors associated with fatigue and severe fatigue in patients with systemic lupus erythematosus (SLE) in a large cohort using a multivariate model to precise the importance of each parameter in this multidimensional symptom.

Methods: We used the LLBR data base, a German French data base of SLE patients. All patients fulfilled the 1997 ACR criteria for SLE. The Fatigue Scale for Motor and Cognitive Functions (FSMC) was used to assess fatigue and severe fatigue. The depression and anxiety were measured with Hospital Anxiety and Depression Scale (HADS). Tests were performed at sampling.

Results: A total of 570 patients were included (89.1% female). The median age was 42 years (QR25–75: 34–52). The median value of the SELENA-SLEDAI was 2 (QR25–75: 0–4) and 136 patients had a SELENA-SLEDAI score ≥6. Fatigue was reported by 386 patients (67.7%) including severe fatigue by 209 (36.7%). In 1

AB0595  
ANTIPHOSPHOLIPID SYNDROME (HUGHES SYNDROME) IS A DISEASE WITH PROTEIN FACES: MULTIDISCIPLINARY APPROACHES ON SERBIAN COHORT OF APS PATIENTS
L. Slijakovitch, A. Djikovic, N. Stanisavljevic, G. Bogdanovic, M. Zdravkovic. Internal medicine department, University Hospital Center Beanzijka Kosa, Belgrade, Serbia

Background: Antiphospholipid syndrome (APS) is a systemic autoimmune disease characterised by thromboembolic state and circulating antiphospholipid antibodies (aPL) including anti beta2GPI-APL.

Objectives: Since it became one of the most systemic conditions. In the last three and half decades, a variety of clinical manifestations involving almost all organs and tissues (cardiac, pulmonary, neurological, renal, cutaneous, hematologic, gastrointestinal, urogenital, and endocrinology), have been described associated with antiphospholipid antibodies (aPL).

Methods: Our study comprises a total of 608 patients: 420 primary APS (PAPS) patients and 188 SLE patients with secondary APS (SAPS), aPL analysis included detection of aCL, anti-ß2GPI, and LA.

Results: Thrombosis was diagnosed in 46.5% patients, with higher prevalence in PAPS compared to SAPS patients: 51.2% and 38.3%, respectively, p=0.045. Pseudoinfective endocarditis was observed in 12.8% secondary APS patients and 3.1% in primary APS patients (p=0.004). 30% of the patients with high levels of aCL IgG antibodies had valve thickening and dysfunction, as compared to 4.1% without valve abnormalities (p=0.002). Presence of ß2GPI-IgG was significantly related to stroke, and overall ß2GPI (IgG and IgM) positivity was significantly related to TIA in SAPS patients. Valvular manifestations were significantly related to TIA in both groups of patients and were independent risk factors for TIA in SAPS (OR 3.790 CI 1.597–8.998 p=0.003: table 2). In PAPS, epihelytes correlated with ß2GPI-IgM, migrate with aCL-IgM, thrombocytopenia with aCL-IgM, aCL-IgG, anti-ß2GPI-IgG and LA. Livedo reticulias was more prominent in PAPS with high levels of aCL-IgG. Skin ulcerations were more prevalent in aCL-IgM positive SAPS patients and epilepsie more frequently had high levels of anti-ß2GPI-IgG in SAPS.

Conclusions: In this cross-section analysis of a large cohort of APS patients we analysed that APS patients can be presented with a wide variety of thrombotic

AB0594  
PREVALENCE OF FRAILTY FRACUTURES IN WOMEN WITH SLE, THEIR CONNEXION WITH THE COURSE OF THE DISEASE AND THE NATURE OF PHARMACOTHERAPY
S. Shevchuk, L. Derynychych, E. Shevchuk. National Pirogov Memorial Medical University, Vinnytsya, Ukraine

Background: Patients with rheumatic diseases are known to have the risk of osteoporosis and fragility fractures, which is significantly higher than in the healthy population. Recent studies demonstrate that age, sex, postmenopausal status, inactivity, glucocorticoid use, nutrition etc. play an important role in the reduction of bone mineral density (BMD) in systemic lupus erythematosus (SLE) patients. The role of the disease severity and the activity of the inflammatory process in the reduction BMD and the incidence of fractures in SLE patients is discursive.

Objectives: The aim of the study was to determine the frequency of osteoporosis and fragility fractures in the Ukrainian SLE patients and to establish the connexion with the course of the disease.

Methods: The main study group involved 91 women with a diagnosis of SLE according to the American College of Rheumatology criteria. The disease activity was determined using the SLE Disease Activity Index (SLEDAI), and organ damage was measured using the Systemic Lupus International Collaborating Clinics American College of Rheumatology (SLICC/ACR) Damage Index. In all patients the cumulative dose of glucocorticoids was calculated. Serum CRP and IL-6 levels were determined by immunoassay. BMD at the lumbar spine (L1–L4) and femoral neck were measured using dual-energy X-ray absorptiometry. For premenopausal SLE patients BMD by Z-score <–2.0 SD was defined as «below expected range for age». For post-menopausal women osteoporosis was defined by T-scores: –2.5 SD, and osteopenia – between –1.0 and –2.5 SD. To determine fractures female SLE patients were examined with x-ray.

Results: In pre-menopausal SLE patients the abnormal BMD of the lumbar spine was found in 9.8%, at the level of the femoral neck it was in 11.1%, in postmenopausal SLE patients – 18.4 and 13.6%, respectively. In the control group there was any premenopausal woman with low bone mass at both sites, whereas among postmenopausal individuals, these were 12.5 and 6.2%, respectively.

Osteoporotic fractures were detected in 13 (14.2%) SLE patients, of which 30.7% had hip fractures and 69.3% had vertebral fractures. The reduction of bone strength and fractures were associated with a high damage index. In particular, in persons with fractures it equaled to 4.85±0.65 units, and in persons without fractures – 3.09±0.22 units. A similar tendency was detected by the disease activity SLEDAI. Glucocorticoid use also had a negative effect on the bone strength in patients with SLE. Thus, in women with fractures, the cumulative dose of glucocorticoids defined 60.9±6.3 g, and was by 37.1% higher than in patients without fractures.

Conclusions: In patients with SLE the prevalence of low BMD and fragility fractures is high. Progressive loss of the BMD and the occurrence of osteoporotic fractures are closely associated with the severity of organ damage and glucocorticoid use.