



Abstract PS7:144 Figure 1

dose of corticosteroids < 5 mg and/or immunosuppressants and/or biologics drugs. 'Clinical' remission was defined as the absence of any increase in corticosteroids dosage or any change in immunosuppressants.

**Results** 85SLE patients were enrolled (95% female). 21% of patients were in remission in all the 5 time-points, 23% never got into remission. 55% of patients satisfied DORIS criteria at least in one time-point. Mean duration of DORIS remission was 9 months. In 169 (40%) visits there was a disagreement between DORIS and Clinical definition of Remission: a) in 2% remission according to DORIS but no clinical remission; b) 98% clinical remission but not according to DORIS.

The reasons for discordant results were: a) self-management of steroids dosage and precautionary increase of steroids in the suspect of a flare; b) cSLEDAI > 0 in 74%, PGA > 0.5 in 47%, daily prednisone > 5 mg in 18%. The cSLEDAI items that most contributed to the score were urinary and haematological alterations (figure 1). In 30 visits (16 patients) a clinical definition of remission was given despite a daily prednisone dose higher than 5 mg.

**Conclusion** Nearly 40% of the visits displayed a disagreement between 'clinical' and DORIS remission. This may be attributable mainly to a different approach in evaluating patients: longitudinal in clinical remission and cross-sectional by DORIS. As compared to 'clinical' remission, DORIS definition:

- may fail to recognise patients with a chronic stable steroid treatment at medium dosage, due to persistent low disease activity;
- is less sensitive because of PGA being used as a dichotomous variable with a low threshold;
- is likely to be scored different than zero because of urinary and haematological alterations.

**PS7:145 IL-34, NOT CSF-1, SIMILARLY MEDIATES RHEUMATOID AND LUPUS ARTHRITIS IN PATIENTS**

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While Myeloid cells are abundant in lupus arthritis (LA) and rheumatoid arthritis (RA), based on clinical presentation LA and RA are considered distinct diseases. Although inflammatory arthritis is common in patients with lupus, the pivotal mechanisms leading to joint damage have not been investigated. We tested the hypothesis that IL-34, but not CSF-1, is a predictive biomarker that is integral in perpetuating synovial destructive inflammation in both LA and RA. We report the novel findings that:

- using longitudinally tracked patients, IL-34, not CSF-1, is a clinical predictive biomarker for both LA and RA; and
- IL-34 is more robustly expressed in the synovial tissue, cells and fluid compared to CSF-1 in both LA and RA.

Probing into the IL-34 dependent mechanisms *in vitro* we find that:

- IL-34 promotes synovial hyperplasia more robustly than CSF-1, and increases chemokines that recruit neutrophils and monocytes (Mo) into the synovium in LA and RA;
- Mo and neutrophils stimulated by IL-34, via cell contact and/or released mediators, such as ROS, destroy synovial cells;
- signalling via the two IL-34 receptors, cFMS and protein-tyrosine phosphatase (PTPRZ), promote IL-34 and CSF-1 mediated synovial cell hyperplasia and cytotoxicity.

Taken together, IL-34-dependent mechanisms are pivotal and similar in mediating LA and RA. Moreover, tracking serum IL-34 is a reliable biomarker for managing the individualised treatment of patients with both LA and RA.

**PS7:146 INVESTIGATION OF CHRONIC ORGAN DAMAGE AND DISEASE OUTCOME IN HUNGARIAN LUPUS PATIENTS**

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**Introduction/objectives** Long-term survival of patients with systemic lupus erythematosus (SLE) improved worldwide, thus prevention of cumulative organ damage became a major goal in disease management. The aim of our study was to investigate the chronic organ damages and their influence on disease outcome in SLE.

**Method** We evaluated clinical conditions, laboratory findings and medications of 357 consecutive SLE patients, and assessed

their impact on SLICC/ACR damage index (SDI) and disease outcome.

**Results** We detected one or more SDI scores in 77.87% of patients. Patients with disease duration of more than 10 years and subjects diagnosed at age above 40 had significantly higher SDI values. The most frequent damages were valvulopathies, cognitive dysfunction, angina pectoris and venous thrombosis. Higher cumulative glucocorticoid dose increased SDI, while chloroquin treatment was favourable for patients. Male gender, elevated SDI scores and higher cumulative doses of glucocorticoids increased mortality risk. Our data confirmed that disease duration, age at diagnosis, chronic high-dose glucocorticoid therapy have significant effects on the development of chronic organ damage. Higher SDI score is characterised with worse survival ratios. The most common chronic organ damages affected the cardiovascular or neuro-psychiatric system.

**Conclusions** As long-term survival in SLE improves, it becomes increasingly important to identify the determinants of chronic organ damage. Most of the chronic organ damage occurs in the cardiovascular and the neuropsychiatric systems, thus regular follow-up, screening and adequate therapy are essential for the best clinical outcome.

#### PS7:147 CLINICAL EXPERIENCE OF BELIMUMAB TREATMENT IN CLINICAL PRACTICE OF SLE PATIENTS

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**Purpose** To study the clinical safety and adverse events (AEs) of Belimumab treatment in routine clinical practice in SLE patients.

**Methods** Retrospective observational study in which data from patients diagnosed of SLE according to SLICC 2012 criteria treated with intravenous Belimumab therapy (Initial: 3 doses 10 mg/kg IV every 14 days and maintenance dose: 10 mg/kg IV every 28 days) were collected. Analytical data of serological profile, clinical manifestations at the onset of the disease and at present, concomitant immunosuppressant and AEs (grouped in non-infectious, infectious, and infusion/hypersensitivity reactions) from July 2012 to September 2017 were collected.

**Results** A total of 15 patients [13 women (86.6%), median (SD) age 32 (8.34) and age at diagnosis 20.17 (11.5) years] were included. Median follow-up was 20 months (range, 1–61). Serologic Activity and clinical manifestation are shown on table 1.

Discontinuation of Belimumab therapy was observed in 4 patients after a 1, 16, 13, and 61 months of follow-up respectively. One patient discontinued voluntary after 61 months of treatment due to desire for pregnancy. The other three patients discontinued by itchy skin lesions, primary pulmonary hypertension and peripheral venous insufficiency.

21 AEs were reported (19 infectious and 2 non-infectious), and 18 occurred in patients with more than 12 months of follow-up. No infusion-related reactions were observed.

All patients received concomitant immunosuppressant therapy (hydroxychloroquine in 8, mycophenolate mofetil in 6, azathioprine in 4, and methotrexate in 2). 12 patients were receiving simultaneous glucocorticoid treatment. We observed a significant decrease in the mean daily prednisone dose over time (8.0 mg/day at the beginning to 5.3 mg/day at the end of study).

**Conclusions** In conclusion, our data confirm the safety of Belimumab therapy in SLE patients. Overall, 4 (20%) patients discontinued treatment due to AEs and in one additional patient (7%) treatment was stopped due to pregnancy. Reduction of disease activity was observed in 12 (80%) of our patients. Finally, the significant decrease of prednisone dose is associated to and additional reduction in steroid-related AEs and with an increase in patient's quality of life.

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	SLE patients N=15
<b>Clinical manifestations at the onset:</b>	
Musculoskeletal	10 (66.6%)
Mucocutaneous	10 (66.6%)
Renal	7 (46.6%)
Cytopenias	5 (33.3%)
<b>Clinical manifestations at the end of follow-up:</b>	
Musculoskeletal	11 (73.3%)
Cytopenias	11 (73.3%)
Mucocutaneous	10 (66.6%)
Renal	3 (20%)
<b>Serological activity (defined as reduction level of C3/C4 and/or high level of anti-ds DNA)</b>	<b>12 (80%)</b>

#### PS7:148 THE RELATIONSHIP BETWEEN HYPOCOMPLEMENTEMIA AND HAEMATOLOGICAL INVOLVEMENT IN ALBANIAN SLE PATIENTS

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**Introduction** Haematological involvement in Systemic Lupus Erythematosus (SLE) is common in patients with SLE. On the other hand, one of the most important variables that helps in disease activity and severity is complement serum level.

**Objectives** The aim of this study was to evaluate the relationship between haematological involvement in Systemic Lupus Erythematosus patients and hypocomplementemia.

**Methods** This is an observational study where 62 patients with SLE haematological involvement were included. All the patients were followed-up at UHC Mother Teresa, Tirana, Albania. All clinical and laboratory data were evaluated, gathered and analysed at our University clinic. It was evaluated especially the level of complement and the complete blood count in order to achieve the data needed for this study.

**Results** It was found that from 62 patients with SLE and haematological involvement, 11 patients were found with only one series affected (anaemia, leucopenia, thrombocytopenia), 10 patients were found with bicytopenia, and 41 were found with pancytopenia. After evaluating the complement levels, hypocomplementemia was found in 2 patients (18.2%) from the first group, in 8 patients (80%) from the second group, and 38 patients (92.6%) from the third group.