

frequent serological manifestations were the presence of anti-phospholipid antibodies (aPLs). Cluster 3 (n=97) was characterized by a lower frequency of clinical and serological involvements, with the exception of neurological domain. Clusters 1 and 2 share hematologic manifestations and hypocomplementemia (table 1).

Conclusions In this cohort, three clusters were identified. Cluster 1 patients were characterized by renal, articular, cutaneous and serositis involvement, anti-dsDNA antibodies and hypocomplementemia, Cluster 2 patients were characterized by hematologic, cutaneous involvement, aPLs and hypocomplementemia. Cluster 3 patients presented fewer serological findings but a higher frequency of neurological involvement. Follow up of these patients will allow for elucidation of relationship of these clusters with SLE outcomes.

LP-150 **OUTCOMES OF SEROLOGICALLY ACTIVE CLINICALLY QUIESCENT (SACQ) VERSUS SEROLOGICALLY AND CLINICALLY QUIESCENT (SQCQ) STATUSES IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS**

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10.1136/lupus-2023-KCR.236

Background To compare the prognosis of SLE patients who achieve clinically quiescent following treatment, with or without serologically active.

Methods We categorized SLE patients from Lupus Clinic of Royal Thai Army (LUCRA) cohort based on disease activity status (DAS): serologically active clinically quiescent (SACQ), Systemic Lupus Erythematosus Disease Activity Index 2000 (SLEDAI-2K) without serological domain = 0, positivity of anti-dsDNA or low complement; serologically and clinically quiescent (SQCQ) patients, SLEDAI-2K = 0. Prednisolone \leq 5 mg/day, immunosuppressive drugs and antimalarials were allowed. Those who were not in any remission definitions were defined as non-remission status. Outcomes included flare (any new clinical feature of the SLEDAI-2K) and increase in Systemic Lupus International Collaborating Clinics/American College of Rheumatology Damage Index (SDI) overtime. Regression analysis models were constructed to identify predictors of the outcomes.

Results A total of 197 patients with SLE were evaluated between March 2017 and November 2022. Sixty-eight SACQ patients, 57 SQCQ patients, and 72 non-remission patients were identified. The mean \pm SD of follow up was 4.79 ± 0.63 years. The percentage of flares over 3 years after achieving SACQ status was 50% versus 26.3% in SQCQ ($p = 0.007$), and over 5 years was 57.4% versus 35.1%, respectively ($p = 0.013$). However, the changes in SDI over 5 years were similar between SACQ, SQCQ, and non-remission patients (22.9%, 24.8%, and 21.5%, respectively), $p = 0.87$. In addition, multivariable analysis revealed that SACQ status was not independent risk factor for increasing flare event compared with SQCQ group when adjusting for confounding factors (HR 1.65; 95% CI:0.94–2.89; $p=0.083$).

Conclusions To attain serologically remission in patients with clinically quiescent SLE had similar effects on flare event and damage accrual compared to serologically active. This supports

treating SLE with a treat-to-target strategy for achieving clinical remission, irrespectively of serological activity.

LP-153 **THE POTENTIAL ROLE OF SERUM CYTOSKELETON-ASSOCIATED PROTEIN 4 AS A NOVEL BIOMARKER TO MONITOR DISEASE ACTIVITY IN SYSTEMIC LUPUS ERYTHEMATOSUS**

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10.1136/lupus-2023-KCR.237

Background Monitoring disease activity of patients with systemic lupus erythematosus (SLE) is essential in treatment decision-making, but is challenging due to the scarcity of sensitive biomarkers. The aim of this study was to investigate new biomarkers to monitor disease activity in SLE.

Methods The study included 34 SLE patients attending Hokkaido University Hospital from 2020 to 2021 and 15 healthy controls (HC). Clinical and laboratory data, including SLE Disease Activity Index (SLEDAI), were recorded. Serum samples were collected and inflammation-associated proteins were measured by Olink Explore 384 Inflammation panel using proximity extension assay technology. Peripheral blood mononuclear cells were also isolated and the proportion of peripheral immune cell types was evaluated by flow cytometry. The correlation between protein expression, SLEDAI, and the proportion of the immune cells were analyzed.

Results Of 34 patients, 31 were females, median age 40 years old and median SLEDAI 6.0. In serum samples, 368 inflammation-associated proteins were detected. Eighty-two proteins showed significant differences between SLE patients and HC, including 14 positive ($r>0.4$) and 4 negative ($r<-0.4$) correlations with SLEDAI. Cytoskeleton-associated protein 4 (CKAP4) exhibited the highest positive correlation with SLEDAI ($r=0.54$) and we focused on this protein. CKAP4 induces NF- κ B pathway through transduction of Dickkopf-1 signal. Serum CKAP4 levels were higher even in SLE patients with low disease activity (SLEDAI \leq 4) than in HC ($p<0.01$). Moreover, in SLE patients, serum CKAP4 levels correlated with the population of Tph17 ($r=0.68$), Tfh17 ($r=0.59$), activated CD4 ($r=0.68$) and activated CD8 ($r=0.51$) T cells, which were increased in SLE patients compared with HC. Cytokine analysis showed correlations between serum levels of CKAP4 and those of TNF α ($r=0.81$), IL-6 ($r=0.77$) and IFN γ ($r=0.67$).

Conclusions Serum CKAP4 levels were upregulated in SLE and positively correlated with SLEDAI. Serum CKAP4 could be a potential novel biomarker in SLE.

LP-154 **PERIPHERAL GANGRENE IN SYSTEMIC LUPUS ERYTHEMATOSUS – A RARE CASE REPORT**

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10.1136/lupus-2023-KCR.238

Description Digital ulcers and gangrene are common cutaneous manifestations of connective tissue diseases. They are frequently seen in systemic sclerosis, but are relatively rare in