Conclusions Men with SLE are reported to have more frequent of discoid cutaneous lupus, venous thromboses, high cumulative prednisolone dose and low adherence to hydroxychloroquine therapy. Female sex is associated with a greater frequency of oral ulcers and Sjögren's syndrome.

PO.4.86 CLUSTER ANALYSIS OF INITIAL LABORATORY FINDINGS IDENTIFIES THREE CLINICAL CLUSTERS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Purpose Systemic lupus erythematosus (SLE) is a heterogeneous disorder with diverse manifestations. This study tried to classify patients with SLE by combining laboratory values when they were classified as SLE.
Methods We performed hierarchical cluster analysis with laboratory results at the time of classification of SLE. Linear discriminant analysis was performed to construct a model for predicting the clusters.
Results The cluster analysis using data of 389 patients with SLE yielded 3 clusters with different laboratory characteristics. Cluster 1 had the youngest age at diagnosis and showed significantly lower lymphocyte, hemoglobin, platelet count and complement levels, and the highest erythrocyte sedimentation rate (ESR) and anti-dsDNA antibody. Cluster 2 showed higher white blood cell (WBC), lymphocyte and platelet, and lower ESR and anti-dsDNA antibody. Cluster 3 revealed the highest titer of antinuclear antibody and lower WBC and lymphocyte count. For 171 months follow-up, Cluster 1 showed higher number of cumulative manifestations compared to Cluster 2 and 3 with higher prevalence of malar rash, alopecia, arthritis and renal disease. In addition, the dose of glucocorticoids and the proportion taking immunosuppressive agents were higher in Cluster 1 than Cluster 2 or Cluster 3. However, damage index and mortality didn't differ significantly among 3 Clusters.
Conclusions Cluster analysis using initial laboratory results could identify 3 Clusters which had a distinct clinical characteristic in patients with SLE, with 84.5% accuracy. Although organ involvements and management patterns differ among the Clusters, damage and mortality didn't differ.

PO.4.87 RACIAL DISCRIMINATION AND TELOMERE SHORTENING: FINDINGS FROM THE BLACK WOMEN'S EXPERIENCES LIVING WITH LUPUS (BEWELL) STUDY

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Purpose Black women have the highest prevalence of systemic lupus erythematosus (SLE) in the U.S., and also experience greater severity and worse disease outcomes compared to their white counterparts. Racial discrimination may contribute to more aggressive SLE progression among Black women through physiologic channels engaged by the stress response, resulting in faster telomeric aging as indexed by the rate of leukocyte telomere length (LTL) shortening. Using longitudinal data, this study examined if racial discrimination is associated with LTL among Black women with SLE.
Methods Data were from the Black Women's Experiences Living with Lupus (BeWELL) Study, a prospective cohort study of 438 Black women, all with a validated diagnosis of SLE and living in metropolitan Atlanta, Georgia. Participants were recruited from April 2015 to May 2017. Linear regression was used to examine LTL assayed from dried blood spots collected at year 1 follow-up, measured as the relative telomere to single copy gene (T/S) ratio. Incident experiences of racial discrimination between baseline and year 1 follow-up were captured in surveys administered at 6-month and year 1 follow-up. Participants were asked how often they had experienced racial discrimination in the past 6 months in the following settings: at school; getting a job; at work; getting housing; medical care; service at a store or restaurant; obtaining credit or a loan; on the street or in a public setting; and from the police or in the courts. Models adjusted for baseline LTL, baseline lifetime racial discrimination, age, years of diagnosis, socioeconomic factors, and other health-related characteristics. Participants who died between baseline and year 1 follow-up (n=9), were missing data on LTL (n=18), and additionally were missing data on any other study variable (n=36) were excluded from analyses, resulting in a total analytic sample size of 375.
Results Examining the interaction between incident racial discrimination and age showed that compared to those reporting no new experiences of racial discrimination in the past year, the negative relationship between age and year 1 LTL was steeper among those reporting high incident racial discrimination (b=-.04, SE=.02, p=.03). The LTL shortening by age was faster among those experiencing high vs. no new experiences of racial discrimination. High racial discrimination was associated with faster LTL shortening particularly among older participants.
Conclusions Racial discrimination has been shown to be a health risk factor among Black Americans, including among Black women living with SLE. Our findings suggest that one mechanism through which racial discrimination may become biologically embedded in this population is via its impact on the telomere maintenance system. This study further demonstrates the need for anti-discrimination policies and practices—for example, in medical care as well as in other societal domains—to address racial inequities in health.

PO.4.89 HASHIMOTO'S THYROIDITIS IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS

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Purpose Hashimoto's thyroiditis is an autoimmune disease affecting the thyroid, which may or may not be accompanied by hypothyroidism. Systemic lupus erythematosus (SLE)