dence of cerebral atrophy was observed in patients with NP events not attributed according to CJ, while inflammatory lesions and myelopathy were more frequent in those attributed according to AA (table 1). Treatment choices were aligned with lesion types, with immunosuppressive drugs frequently used for inflammatory lesions and myelopathy, and antiplatelet/anticoagulant drugs for patients with parenchymal infarcts. After 12 months, myelopathy and parenchymal infarcts demonstrated more favorable clinical evolution, as indicated by the Likert scale. (figure 1)

Conclusions In our study, the finding of cerebral atrophy was negatively associated with attribution according to CJ, while inflammatory lesions and myelopathy were positively associated with attribution according to AA. bMRI plays a crucial role in supporting attribution in NPSLE patients with NPSLE involvement.

P39 ANALYSIS OF NAILFOLD CAPILLAROSCOPY FINDINGS AND CLINICAL FEATURES OF PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS AND PULMONARY ARTERIAL HYPERTENSION

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Objective The aim of our work is to analyze the clinical and demographic features and nailfold capillary changes in patients with SLE-related PAH compared to a group of SLE patients without PAH.

Methods We identified and selected 20 patients with SLE and type I PAH and collected demographic, clinical and laboratory features from 8 rheumatology centers across Europe. We could perform NVC on 9 patients. We selected as controls 68 patients with SLE who underwent cardiopulmonary screening to exclude PAH: we collected demographic, clinical and laboratory features and performed NVC. The presence of SD pattern was assessed according to Smith et al (Autoimmunity Reviews 2019). Patients satisfied the 2019 EULAR/ACR SLE classification criteria. We excluded patients with a diagnosis of mixed tissue disease and overlap syndrome.

Results All patients with SLE-PAH were female; age and disease duration were not different from SLE patients without PAH. LAC+ and anti-RNP+ was more prevalent in patients with SLE-PAH. No differences were observed for anti-Sm, anti-Ro, anti-La and anti-phospholipid antibodies. Of clinical features, skin and CNS involvement were more prevalent in patients with SLE-PAH than in SLE controls. Raynaud's phenomenon was more prevalent in patients with SLE-PAH than in SLE controls. In patients with SLE-PAH we observed a significantly higher prevalence of scleroderma pattern at NVC than in SLE controls: patients with SLE-PAH showed a lower number of capillary density and a higher frequency of megacapillaries. In multivariate analysis, Raynaud phenomenon and anti-RNP are predictors of PAH in patients with SLE. The McFadden's R-squared for the model is 0.30.

Conclusions Our data show that LAC+, RNP+, Raynaud's, Skin and CNS involvement and a SD pattern at NVC is more prevalent in patients with SLE PAH than in patients with SLE without PAH. Our results point to a generalized microvascular involvement and a hypercoagulation state in patients with SLE-PAH. The variables we identified could be used to implement a screening algorithm to identify patients with SLE with a high risk of developing PAH.

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P40 MEDIAL TEMPORAL LOBE SUBREGION VOLUMES IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS

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Objective Systemic lupus erythematosus (SLE) often presents with neuropsychiatric (NP) symptoms, including cognitive impairment and depression. Past magnetic resonance imaging (MRI) research on hippocampal (HC) volumes, important for NP symptoms, in SLE patients yielded conflicting results and did not investigate other medial temporal lobe (MTL) regions.[1] Our study aims to compare MTL subregional volumes in SLE patients to healthy individuals (HI) and explore the relationship between MTL subregional volume, cognition, and depression in SLE patients.

Methods 70 SLE patients (mean age 36 years (range 18–51), mean disease duration 11.1 ± 8.0 years) and 25 HI (mean age 37.2 years (range 23–52)) underwent clinical evaluation, cognitive testing using CNS Vital Signs (CNS-VS), and 3 tesla MRI. T1-weighted MR images were analyzed using Automatic Segmentation of Hippocampal Subfields-T1 (figure 1). Analyses of Covariance were used to compare MTL subregion volumes between SLE patients and HI, and between NPSLE and non-NPSLE patients utilizing three classification models: the American College of Rheumatology definitions for NPSLE (42 NPSLE/ACR, 28 non-NPSLE), and the more stringent Systemic Lupus International Collaborating Clinics (SLICC) B (21 NPSLE/SLICC B, 49 non-SLICC B) and SLICC A models (15 NPSLE/SLICC A, 55 non-SLICC A). We explored the relation between MTL subregion volumes, cognitive, and depression scores (the self-reported Montgomery-Åsberg Depression Rating Scale, MADRS-S) in SLE patients using partial correlations.

Covariates were age, intracranial volume, and education for cognitive analyses.

Results NPSLE/ACR patients displayed significantly smaller volumes in the posterior HC, bilateral HC, and bilateral Brodman Area 35 (Br35) compared to non-NPSLE patients when applying the ACR case (p=0.04, 0.01, and 0.01 respectively). NPSLE/SLICC B showed significantly smaller left HC compared to non-SLICC B (p=0.03) (figure 2). No significant differences in MTL subregional volumes between SLE and HI were found. No significant correlations between MTL subregion volumes and cognitive or depression scores were observed.

Conclusion NPSLE/ACR and NPSLE/SLICC B patients display significantly smaller volumes in some subregions of MTL, suggestive of a role of the MTL in NP symptoms in SLE. The lack of significant associations of MTL subregions with NP symptoms in SLE may be due to a lack of power.

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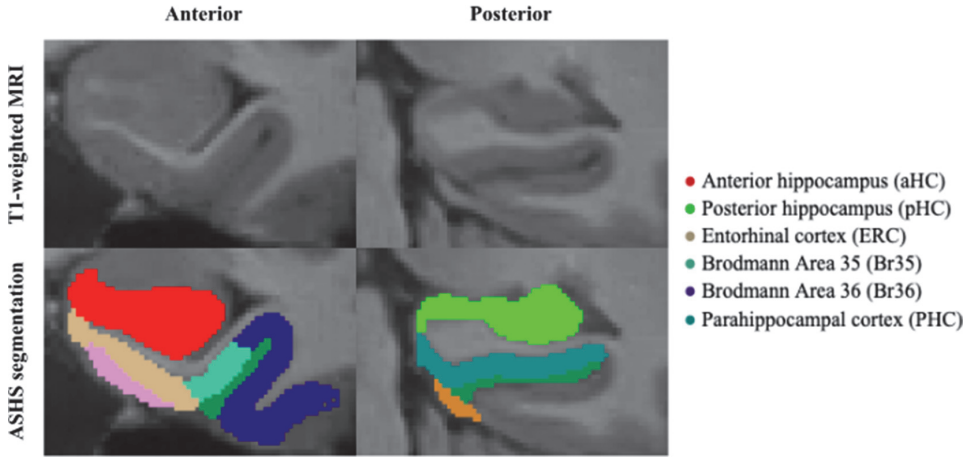
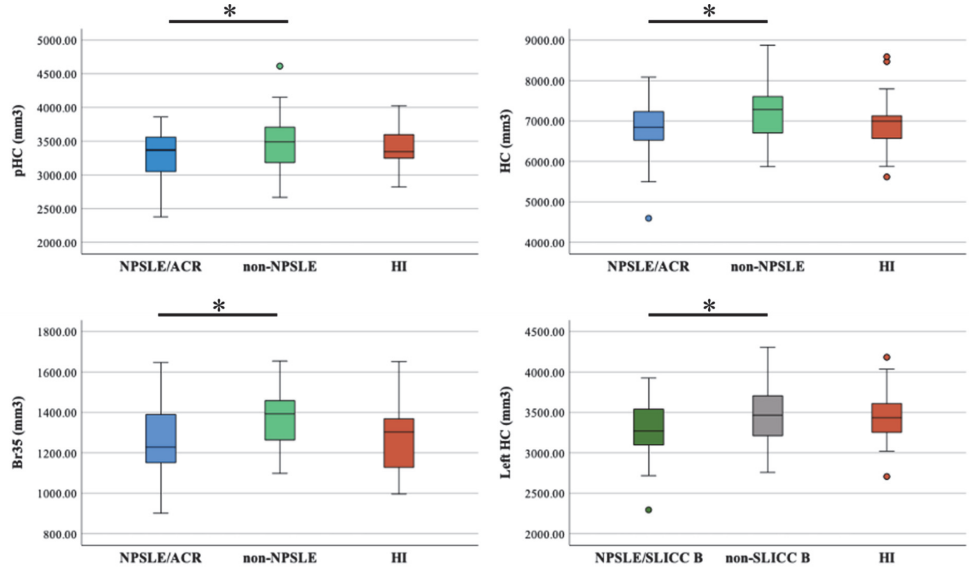


Abstract P40 Figure 1 Segmentation of medial temporal lobe subregions obtained by the Automated Segmentation of Hippocampal Subfields-T1 package. Each color corresponds to a different subregion



Abstract P40 Figure 2 Box plots illustrating distribution of MTL subregion volumes between subgroups. The asterisk marks the presence of significant results

P41

ASSESSMENT OF COGNITIVE FUNCTION IN A RANDOMIZED, PLACEBO-CONTROLLED, INTERVENTIONAL TRIAL CONDUCTED IN PATIENTS WITH MODERATE-TO-SEVERE SYSTEMIC LUPUS ERYTHEMATOSUS (SLE)

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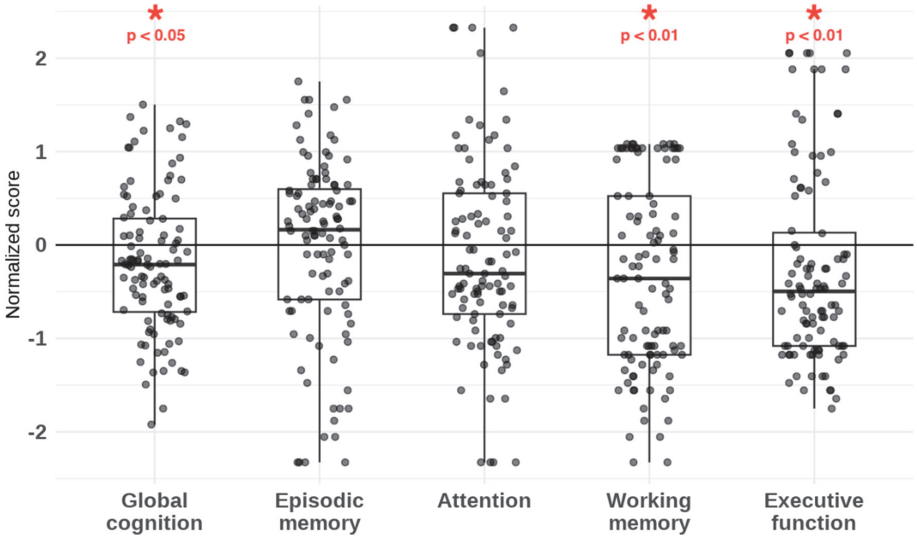
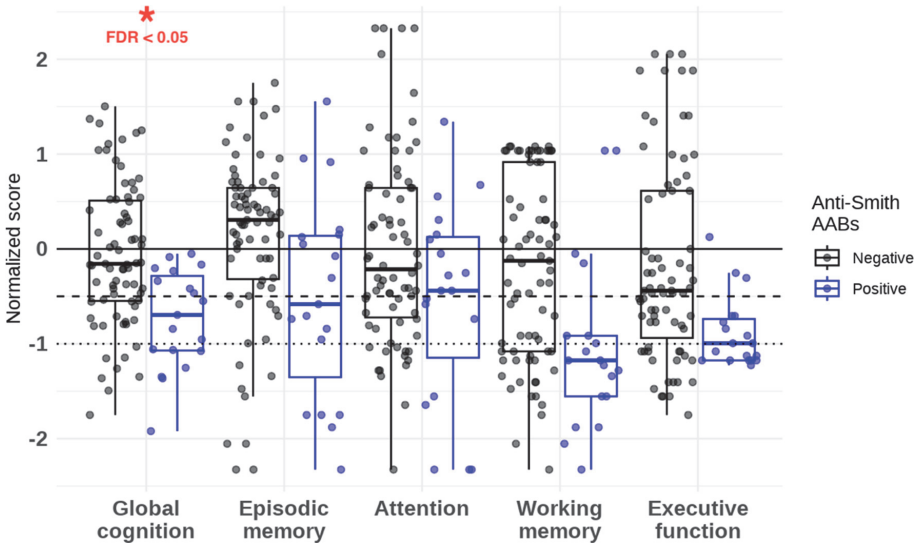
Objective Cognitive dysfunction is a characteristic yet heterogeneous feature of systemic lupus erythematosus (SLE) that can impact quality of life. In a phase 2 trial (NCT03656562) comprising two separate, placebo-controlled cohorts evaluating ianalumab and iscalimab in patients with SLE of moderate-to-severe activity, we employed Cambridge Automated Neuropsychological Test Battery (CANTAB) assessments to characterize patients' baseline cognitive function and explore associations with clinical parameters and biomarkers associated with disease severity. Here we report baseline results, with further exploration of potential treatment effects in the ianalumab cohort.

Methods CANTAB was administered at baseline, 12 and 28 weeks. Scores indexed episodic memory, working memory, executive function and attention, normalized by age and gender relative to individuals without known cognitive dysfunction. A global composite comprised the mean of four domain scores for each assessment.

Results Baseline CANTAB scores (n=104 patients) indicated cognitive dysfunction in this sample for executive function, working memory, and global cognition (t-test for group mean <0; figure 1). Correlations between cognitive assessment scores and standard clinical (e.g., FACIT-Fatigue) and biomarker parameters of disease activity were generally low, with the highest correlation observed between global cognition and anti-Smith antibody status (r= -0.4, FDR <0.05; figure 2). Although the primary lupus disease outcome objective was met for the ianalumab treatment cohort (n=64; reported



Abstract P41 Figure 1 Baseline CANTAB scores across assessed cognitive domains



Abstract P41 Figure 2 Baseline CANTAB scores grouped by anti-Smith antibodies status