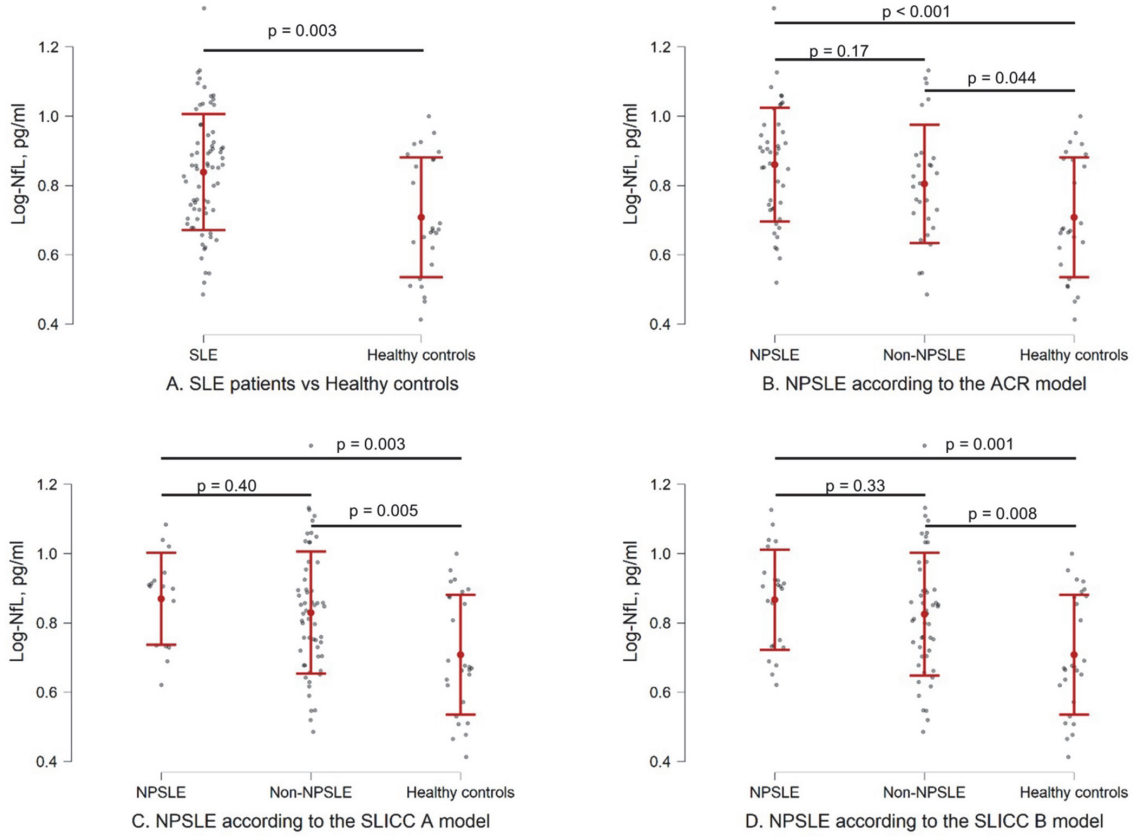

Abstract PO.1.13 Figure 1

Results Plasma and CSF NfL concentrations correlated strongly (r=0.72, p<0.001). Both NPSLE and non-NPSLE patients in all attribution models had higher plasma NfL concentrations compared with healthy controls (log-NfL, pg/ml, mean (SD); healthy controls (0.71 (0.17)); SLICC A model: NPSLE (0.87 (0.13), p=0.003), non-NPSLE (0.83 (0.18), p=0.005); SLICC B model: NPSLE (0.87 (0.14), p=0.001), non-NPSLE (0.83 (0.18), p=0.008); ACR model: NPSLE (0.86 (0.16), p<0.001), non-NPSLE (0.81 (0.17), p=0.044), see Figure 1). Plasma and CSF NfL concentrations did not differ between NPSLE and non-NPSLE patients. Higher plasma NfL concentrations correlated with larger CSF volumes on MRI (r=0.34, p=0.005), and was associated with poorer cognitive performance in the domains of simple attention, psychomotor speed and verbal memory. SLICC/ACR-Damage Index ≥1 was independently associated with higher plasma NfL concentrations (β=0.074, 95% CI 0.004–0.14, p=0.038). Higher plasma creatinine concentrations, anti-dsDNA-positivity, low complement C3 levels, or a history of renal involvement were associated with higher plasma NfL concentrations (β=0.003, 95% CI 0.001–0.006, p=0.009; β=0.072, 95% CI 0.005–0.14, p=0.031; β=0.077, 95% CI 0.009–0.15, p=0.027; β=0.069, 95% CI 0.001–0.14, p=0.047, respectively).

Conclusions Higher plasma NfL concentrations in NPSLE and non-NPSLE patients may indicate a higher degree of neuronal damage in SLE in general, corresponding to cognitive impairment and organ damage development. Furthermore, our results may indicate a higher degree of neuronal breakdown in patients with active SLE, also without overt clinical symptoms. NfL may serve as an indicator of neuronal damage in SLE in further studies.

PO.1.14 EVALUATION OF COGNITIVE IMPAIRMENT IN SLE – A COMPARISON OF TWO ASSESSMENT TOOLS

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Background, aims Cognitive impairment is estimated to occur in 10–30% of systemic lupus erythematosus (SLE) patients. Its screening and early recognition is not well established in routine clinical care. Assessment tools for common types of dementia are insufficient to detect early signs of cognitive dysfunction, furthermore, few tests have been studied specifically in SLE patients to screen and follow cognitive functions.

The aim of this study was to evaluate the efficacy of Quick mild cognitive impairment screen (Qmci) and the Montreal Cognitive Assessment (MoCA) to find a brief screening tool for the everyday practice. Furthermore, our aim was to analyse which cognitive functions are mostly affected in SLE patients compared to healthy controls to detect mild cognitive impairment early, before it progresses to dementia.

Methods We enrolled consecutive SLE patients aged < 65 years who met the Systemic Lupus International Collaborating Clinics (SLICC) 2012 classification criteria. Disease activity was measured by SLEDAI-2K. We evaluated the patients' cognitive function with the MoCA and Qmci tests. We recorded the patients' demographic, clinical, immunoserological parameters and data about education, social and health habits. We

also used this study to validate the Hungarian translation of the Qmci test in SLE patients.

Results Eighty-seven patients (mean age: 44.97/range: 20–64/), of whom 75 were women (86.2%) and 12 were men (13.8%) were studied. 32 patients (36.8%) had < 12 years of education, 32 patients had grammar school or college educational level (36.8%) and 23 had university degree. Regarding MoCA, the participants' test score was in the range between 17 and 30 points (maximum score in the MoCA test is 30), with mean score of 26.28 (SD = 3.08), which is considered as normal cognition with the 24 cut-off score of the MoCa test. Patients scored a mean of 3.64 point (SD = 1.32) from the maximal 5 points on the delayed recall scale. The Qmci scores were in the range between 49 and 94 points (mean: 80.68/SD = 10.10/), which is classified as normal cognition using the 62 cut-off score (potential maximum for Qmci is 100). Highest deviations from the maximum were observed in the delayed recall domain (13,79, SD = 5.58) and the verbal fluency task (mean 11.78, SD = 2.96 out of the maximal 20 points). With MoCA we detected 16 patients (18,4%) with cognitive impairment, whereas Qmci classified 4 participants (4,6%) with this.

Conclusions Cognitive impairment is present in a considerable proportion of SLE patients under 65 years of age, but the rate is dependent on the tool used. MoCA was a more sensitive test in this cohort, it therefore seems more useful for screening. Although Qmci has a less stringent numerical range to detect mild cognitive impairment, furthermore, it is a quick instrument, it classified less patients with cognitive impairment in our cohort. Analysis of subsets of cognitive function in the tests could help to better delineate the character of cognitive impairment developing in SLE. Further research is required in larger clinical and healthy sample to examine the diagnostic and follow-up value of the tests.

PO.1.15 LUPUS BRAIN FOG: COGNITIVE IMPAIRMENT AND DEPRESSION IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Purpose To investigate the prevalence and main determinants of cognitive dysfunction, anxiety and depression in a cohort of patients with Systemic Lupus Erythematosus (SLE); to explore the coping strategies and impact of these disorders on quality of life and function.

Methods This observational cross-sectional study recruited patients of the University of Campania 'Luigi Vanvitelli', from February 4th to April 4h, 2022, who were diagnosed with SLE according to the Systemic Lupus International Collaborating Clinics (SLICC) Criteria. Demographic and clinical data, disease activity (SLEDAI-2k), damage (SDI) and concomitant therapies were analyzed. The definitions for remission (DORIS) and 'Lupus Low Disease Activity State' (LLDAS) were applied. At enrollment, each patient underwent a psychiatric evaluation completing the following questionnaires: Hamilton Depression and Anxiety Rating Scales (HAM-D, HAM-A), Montreal Cognitive Assessment (MoCA) and Coping Orientation to Problems Experienced (COPE) Inventory. Health Assessment Questionnaire-Disability Index (HAQ-DI) was also performed. The Spearman test was used for linear correlation. Multivariate analysis was performed by multiple linear and logistic regression.

Abstract PO.1.15 Table 1 Baseline clinical and demographic features of patients enrolled

Sex female n;%	51 (88%)
Age, years mean	45
Disease duration, years mean	16.7
Remission	33 (54%)
LDA	43 (70%)
SLICC damage index median (range)	1 (0-6)
HCQ	48 (78%)
Azathioprine	12 (19%)
Mycophenolatemofetil	11 (18%)
Methotrexate	1 (1%)
Belimumab	1 (6%)
Glucocorticoids	33 (54%)

Results 61 consecutive patients with SLE were enrolled, the majority female (88%) and Caucasian with a mean age of 46 years. 70% were in remission or in LDA. The prevalence of cognitive dysfunction was 65%, executive function and memory were the most affected domains. We found isolated anxiety in 3% and isolated depression in 50.7% of patients, even if mild. Regarding coping strategies, SLE patients reported higher scores on emotion-focused coping, with respect to the other two coping strategies (p< 0,001). Pearson's correlation analysis highlighted a relationship between higher levels of cognitive impairment and worse quality of life (r = -0.38, p = 0.002) and between hypocomplementemia and depression (r=-0,25; P=0,04). AntidsDNA antibody positivity was slightly significant (r=0,22; P=0,08). Our analysis also highlighted a positive correlation between emotion-focused and avoidance-focused strategies (0.43;P=0.0005). In the multivariate analysis, higher scores on the HAM-D questionnaire (higher levels of depression) were found to be independently associated with higher HAQ score (OR:1.2; p=0.03). Moreover, patients with active disease tend to be more depressed compared to patients in LDA or in remission (p : 0.04).

Fibromyalgia was independently associated with depression (OR: 3.85 p : 0.03). Depression was found to be significantly linked to patients' worse quality of life, irrespective of disease activity (OR:1.19; p=0.01). Depression, anxiety and fibromyalgia were not associated with objective cognitive dysfunction.

Conclusion Our study confirms the high prevalence of cognitive dysfunction and depressive symptoms in SLE patients and determine a strong negative impact on function and quality of life.

In the context of a multidisciplinary management, collaboration with clinical psychologists should be considered, to improve both coping strategies, patients' perception of health status and quality of life.

PO.1.16 LIMBIC ENCEPHALITIS: A RARE COMPLICATION OF SYSTEMIC LUPUS ERYTHEMATOSUS

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Purpose Neurological manifestations during systemic lupus (SLE) are common, and can jeopardize the functional or vital prognosis of patients .