regression analyses and linear mixed models corrected for confounding.

Results In total, 357 patients were included, of which 86% was female and the mean age was 44 years. Approximately half of patients (169/357) had a follow-up visit after a median duration of 11 months. Impairment of the cognitive domain GCF was present in 8% of patients. Impairment of the other cognitive domains was present in approximately ±50% of patients. Most severe impairment (all domains) was seen in patients with a combined NPSLE phenotype, followed by an inflammatory phenotype. A diffuse cognitive impairment (a combination of the cognitive domains L&M, EF&CA and PS) was most common and this pattern was more frequently seen in in patients with an inflammatory NPSLE phenotype.

A weak association between cognition and HRQoL was found both cross-sectionally and longitudinally in all cognitive domains. In general, one standard deviation (SD) lower scores on the cognitive domains were associated with an at most 1/5 SD lower HRQoL (see Table 1).

Conclusion In conclusion, objective cognitive impairment is common in SLE patients with NP symptoms, especially in those with an combined an inflammatory NPSLE phenotype. However, the impact of cognitive status on quality of life appears limited.

Friday 07 October 2022 from 17:30 to 18:10

S15 steroids/HCQ and dmards

S15.1 HYDROXYCHLOROQUINE DAILY DOSE, HYDROXYCHLOROQUINE BLOOD LEVELS AND THE RISK OF FLARES IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background Recent guidelines for Systemic Lupus Erythematosus (SLE) recommend using a hydroxychloroquine (HCQ) dose less than 5.0 mg/kg/day to reduce the risk of HCQ-induced retinopathy. The aims of our study were to (1) evaluate if HCQ reduction dose to 5 mg/kg/day is associated with increased risk of SLE flares, (2) compare HCQ blood levels between the two different oral dosages, and (3) evaluate if HCQ reduction dose to 5 mg/kg/day is associated with reduced risk of retinopathy in SLE.

Methods We identified a cohort of patients with SLE taking HCQ for at least 6 months and followed for 24 months. At study entry and six months later a blood venous sample was taken to measure whole blood concentration of HCQ by liquid chromatography-tandem mass spectrometry. A mean HCQ value for each patient was then calculated. The primary outcome of interest of this study was the occurrence of flares. Flares were defined by SELENA-SLEDAI Flare Index. Incidence of new SLE flares after recruitment was put in relation to daily HCQ dose according to body weight and mean HCQ blood levels. Cox regression analysis served to identify factors associated with SLE flares occurrence in the overall cohort in patients according to HCQ dose.

Results Of 83 patients with SLE taking HCQ, 17 (20%) were excluded because of poor therapeutic adherence. All the remaining 66 patients were Caucasian, mostly female (99%), with a mean age of 42 (±11.2) years. We stratified patients according to HCQ oral dose in two groups: ≤5 mg/kg versus >5 mg/kg per day. The HCQ dose of ≤5 mg/kg per day was assumed by 27 (41%) patients, with median HCQ blood levels of 580.8 ng/mL. The proportion of patients with HCQ blood levels≥ 500 ng/ml (therapeutic range) was 51% (14/27). We observed 11(16%) flares that developed in mean 14,8 months of follow up. A total of 7/27 (26%) patients taking <5 mg/kg of HCQ had a flare. We registered only 4/39 (10%) flares in the other group, all mild/moderate flares, although the differences were not statistically significant (p=0.08). There was a trend for high HCQ dose being associated with a lower flare rate (12.3 events per 100 person-years) versus HCQ <5mg/Kg/day (43.5 events per 100 person-years). However, in patients treated with HCQ dose>5mg/Kg/day, therapeutic HCQ levels (>500 ng/ml) were associated with no occurrences of disease flares. At univariate analysis, older age at baseline was protective against flare occurrence (HR 0.93) while concomitant immunosuppressant therapy showed significant positive association (HR 3.66). We also observed that longer time on remission was associated with lower flare risk even if was not significant (p=0.05). No other significant associations were observed. In these patients, therapeutic HCQ levels were not associated with the occurrences of retinopathy.

Abstract S15.1 Table 1 Demographic, clinical and laboratory features of patients at baseline

Sex, female	65 (99)
Age, y,mean(SD)	42.01±11.2
Disease duration, y, mean (SD)	15.71 (9.02)
SLEDAI, median (range)	2 (0-4)
SDI, median (range)	0 (0-2)
[HCQm] ng/mL, median (range)	512.60 (104.41-3105.66)
[DCQ] ng/mL, median (range)	73.41(4.16-649.84)
Remission	34 (52)
Time remission, y,median (range)	2,00 (1-11)
Previous renal involvement	31 (47)
Time HCQ, y,median (range)	5 (0-32)
Glucocorticoids	33 (50)
Mycophenolate mofetil	6 (9)
Azathioprine	7 (11)
Methotrexate	1 (2)
Cyclosporine	2 (3)
Belimumab	1 (2)

Conclusion Patients with low HCQ dosage tend to have more flares, although the difference was not statistically significant. Monitoring HCQ levels might allow identification of early non-adherence. The risks and benefits must be balanced in choosing to reduce HCQ dose.