well as to define characteristics of the lymphoma and its evolution.

Methods Retrospective observational, longitudinal study conducted in a tertiary hospital. Medical records of 362 patients with ≥ 4 SLICC classification criteria of SLE were reviewed, including those with lymphoma diagnosis. Demographic and clinical data, comorbidities, SLE manifestations and therapy, data related to lymphoma and outcome were collected. Descriptive statistic analysis with measures of central tendency and measures of variability was performed.

Results Of the 362 SLE patients, 9 (2.5%) were diagnosed of lymphoma, of which 100% female. Mean age at SLE diagnosis was 34 y.o (SD 11) and average duration from SLE diagnosis to lymphoma was 17 years (SD 14). 7 patients were Caucasian and 2 Hispanic. Observed comorbidities were hypertension (67%), diabetes (22%), dyslipidemia (33%), HBV infection (11%) and active smoking (66%). No malignancy history was detected. Most frequent SLE features were haematological (100%), joint (56%) and skin (56%) involvement. The serious ones were: 3 patients with haemolytic anaemia (1 of them, platelets <20000), 2 epilepsy (1 with CNS vasculitis), 1 glomerulonephritis, 1 pulmonary hypertension and 1 hemophagocytic syndrome. Only 1 patient had overlap with Sjögren's syndrome. At the time of lymphoma diagnosis, 7 patients were on steroids, 4 on immunosuppressants (2 mycophenolate, 1 azathioprine, 1 rituximab) and 3 on antimalarials (table 1). Mean age at lymphoma diagnosis was 51 y.o (SD 10). 5 patients (56%) had diffuse large B-cell lymphoma (DLBCL); 1, NHL; 1, Hodgkin's lymphoma; 1, mantle B-cell lymphoma and; 1, MALT. Only 1 patient, of 4 with available data, had EBV positive in the tissue. 7 patients received chemotherapy and 2 patients completed treatment with autologous peripheral stem-cell transplantation. Three patients died, 2 due to lymphoma and one due to other causes (severe flaccid paralysis). Overall survival after lymphoma diagnosis was 8 years (SD 6).

Conclusion In our patients, unlike that reported in the literature, lymphoma diagnosis was in SLE with longer duration of the disease, and all cases were female. Most frequent subtype was NHL, and all patients had previous haematological manifestations. Regarding previous SLE treatments, 5 patients had been exposed to immunosuppressants.

P166 POSSIBLE NEW ROLE FOR HCQ IN PREVENTING DEPRESSION IN JSLE

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Background Hydroxychloroquine (HCQ) is a key immunomodulatory treatment in systemic lupus erythematosus (SLE) with pleiotropic effects. Beyond anti-thrombotic, anti-atherosclerotic and anti-diabetic effects, anti-microbial and anti-cancer are possible roles. Neuropsychiatric symptoms, mostly headaches, depression, anxiety and cognitive impairment, affect nearly half of patients. Several pathways have been identified: antibody-mediated/cytokine-induced neurotoxicity, vasculopathy and loss of neuroplasticity. Thus, we hypothesized if there is a role for HCQ in preventing depression in jSLE.

Methods A cross-sectional sample of juvenile-onset SLE (jSLE) patients, currently aged ≥ 16 years, completed a psychosocial assessment including the SF-36, HADS, SHS, BriefCope and MMSE questionnaires, between October 2018- May 2019. Local Ethics Committee approved the study. All patients fulfilled both 2012 and 2019 EULAR/ACR classification criteria for SLE. Juvenile-onset was defined as age at diagnosis <18 years. Demographics and clinical characteristics were collected. Statistical analysis was performed with SPSS®.

Results 30 jSLE patients were included (90%female) in the study, with median age of 21 years, being the youngest 16 and the oldest 35, with mean (SD) age of diagnosis of 15.8 ± 2.1 . Mean values (SD) of psychosocial assessment were: SHS 5.2 (1.02); MMSE of 27.7 (1.8); Physical health SF-36 of 66.8 (9.9) and Mental health SF-36 of 68.9 (17.5). 23.3% jSLE showed mild cognitive impairment, 63.3% anxiety and 13.3% depression. From the 27 jSLE treated with HCQ, those had better results in the SHS ($p=0.030$) and scored lower in scores in the Hospital Anxiety and Depression scale ($p=0.023$). Interestingly, this also occurs for emotion focused coping, with significantly better results in jSLE taking HCQ ($p=0.001$).

Conclusions Young adults with SLE are at risk for depression and HCQ may have a role in preventing it. Longitudinal studies will permit to confirm present results and clarify the role of coping strategies in the occurrence of depression in jSLE.

P167 LONG TERM FOLLOW-UP OF LUPUS PATIENTS UNDER ANTIMALARIC TREATMENT: FACTORS OF DROP-OUT

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Background Antimalarials represent the cornerstone of SLE treatment, since its uses control clinical manifestations in many patients, prevents disease flare and permits steroid reduction. The aim of this study is to describe the safety profile and the reasons for discontinuation of antimalarials in patients with SLE and determine which factors act as a predictor of drop-out.

Methods A single centre, retrospective, case control study was performed including patients with SLE according to SLICC 2012 criteria. Clinical and demographical variables were collected. Disease activity was measured with clinical, analytical and disease scores.

Results 66 patients were included, 56 patients (84.8%) were females, the median age was 49.3 years (23.4, 76.2). 95.50% of patients were Caucasian. 11 patients (16.7%) had high blood pressure and 6 (9.1%) diabetes mellitus. The disease duration of SLE had a median of 198 months (5.1, 144.9), and median SLEDAI was 3.4 (2–23). 45 patients (68.2%) were taking steroids and its median dosage was 3,6 (1.2, 2.5) mg. 58 patients received antimalarial treatment during their follow-up with a median exposure time of 354 (6, 867) months. 91.2% took hydroxychloroquine (HCQ), 6.9% chloroquine (CQ), and only one patient mepacrine (1.7%). At least one side effect was reported in 22 patients (33.3%) leading to permanent withdrawal in 13 (19.7%): 7 cases of ocular toxicity, 4 intolerance (6,1%), and 2 cases of inefficacy (3%). 45

patients (68.2%) continued antimalarials after introduction. Retinal alterations were not associated with age, disease length and duration of the antimalarial therapy.

Conclusions We observed a similar frequency of antimalarial suspension as reported in other studies. The main adverse events during the therapy were ocular toxicity, but in a percentage of patients remains the main cause of treatment withdrawal.

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PREVALENCE AND CHARACTERISTICS OF CARDIOVASCULAR AUTONOMIC DYSFUNCTION IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background The prevalence of cardiovascular autonomic dysfunction (CAN) has previously been described with large variation (10–90%) in patients with systemic lupus erythematosus (SLE). CAN is assessed by heart rate variability (HRV) or cardiovascular autonomic reflex tests (CARTs), but these two methods have not previously been compared in SLE patients. Further, little is known about the autonomic nervous system (ANS) impairments at different stages of CAN. Consequently, the purpose of this study is, in a large cohort of SLE patients, to determine the prevalence of CAN and to characterize the ANS function at different CAN-stages by HRV and CARTs.

Methods CAN was tested in 111 SLE patients with a 5-minute HRV-test and three CARTs. HRV-items reflecting parasympathetic (PNS) function (high frequency power, HFP) and mixed PNS-sympathetic (SNS) function (low frequency power, LFP; total power, TP; LFP/HFP-ratio and peak LF) were calculated. CAN was staged by the number of abnormal CARTs; early CAN: one abnormal CART, definite CAN: two or more abnormal CARTs. Fifty-five SLE patients were age and gender matched to 55 CAN-tested healthy controls (HC).

Results The prevalence of definite CAN in SLE is higher than in HCs (24.1% vs. 1.9%, $p=0.001$). CAN-stage was significantly associated all HRV-measures, except LF/HF-ratio. SLE patients without definite CAN had lower PNS activity than HCs without definite CAN (HFP: 42.7 vs. 87.5 ms^2 , $p=0.006$; LFP/HFP-ratio: 1.79 vs. 1.00, $p=0.010$, resp.). Furthermore, SLE patients with definite CAN had signs of lower mixed PNS-SNS-function as determined by LFP, TP and peak LF (all $p<0.05$), see table 1.

Conclusions The prevalence of CAN in SLE patients was 12 times higher than in HCs. In SLE patients, early CAN was associated with impaired PNS function, whereas definite CAN was characterized by impaired function of the PNS and SNS.

P169

ASSOCIATION BETWEEN CARDIOVASCULAR AUTONOMIC NEUROPATHY AND QUALITY OF LIFE IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background Cardiovascular autonomic neuropathy (CAN) with comprised function of the parasympathetic (PNS) and/or the sympathetic nervous system (SNS) occurs frequently (10–90%) in patients with systemic lupus erythematosus (SLE). CAN is a subclinical dysfunction which is reflected by reduced heart rate variability (HRV). Only a few studies have investigated the clinical impacts of CAN in SLE. However, impaired quality of life occurs frequently among SLE patients, and has, in other patient groups and in healthy individuals, been associated to impaired HRV. Consequently, the purpose of this study is to explore if CAN is associated to self-report of low health related quality of life (HRQoL) in SLE patients.

Methods CAN was tested in 87 SLE patients with a 5-minute HRV-test. HRV-measures reflecting PNS function (high frequency power, HFP) and mixed PNS-SNS function (low frequency power, LFP; total power (TP); low- vs high frequency power-ratio, LFP/HFP-ratio and peak LF frequency) were calculated. The patients were further asked to complete a questionnaire on severity of pain, depression and fatigue, adapted from the Systemic Lupus Activity Questionnaire (SLAQ), along with the questionnaire Short Form 12 (SF-12) on physical and mental HRQoL.

Results TP and peak LF were associated to low quality of life based on the physical domain of the SF-12 (TP: $\beta=0.247$, $p=0.025$ and peak LF: $\beta=0.225$, $p=0.037$). However, no associations were observed between AD and pain, depression, fatigue or the mental domain from the SF-12.

Conclusions Cardiovascular autonomic neuropathy of mixed PNS and SNS impairment was associated to self-report of low physical quality of life in SLE, but not to any mental domains of life quality. Further studies are needed to elaborate on causality between of autonomic dysfunction and the physical component of life quality in SLE patients.

Abstract P168 Table 1 Measures of heart rate variability (HRV) by cardiovascular autonomic neuropathy (CAN) (-CAN = no and early CAN +CAN = definitive CAN) for age and gender matched systemic lupus erythematosus (SLE) patients and healthy controls (HC)

	HC		SLE matched to HC					
HRV measures, median (IQR)	-CAN, n=53		-CAN, n=41		+CAN, n=13		p*	p**
LFP, ms^2	77.7	(49.3–195)	69.1	(39.8–159)	36.4	(10.3–66.8)	0.429	0.019
HFP, ms^2	87.5	(38.4–201)	42.7	(18.2–76.2)	5.30	(2.66–60.1)	0.006	0.006
TP, ms^2	378	(209–832)	301	(151–495)	115	(51.0–263)	0.141	0.009
LFP/HFP-ratio	1.00	(0.44–2.37)	1.79	(1.00–3.50)	2.94	(1.41–8.37)	0.010	0.100
Peak LF, Hz	0.04	(0.04–0.11)	0.07	(0.04–0.12)	0.04	(0.04–0.04)	0.452	0.000