impression applicability and expressiveness. Remission is defined as target in therapy of SLE. According to SLEDAI and current treatment recommendations patients were divided in four groups of disease activity (Remission, Remission on treatment, LLDAS, active disease).

Results It was possible to include 72 SLE patients with 305 visits in the study. 64 (88%) of them were female and 8 patients were male. Average age was 48 (SD ± 13.1) and the media duration of lupus disease was 15.6 years (SD ± 8.7). There was a significant correlation between MLS and ECLAM ($p<0.001$), WAI ($p=0.027$) and BDI ($p=0.003$), whereas the SLEDAI and cSLEDAI just show correlation with BDI ($p=0.008$), respectively ($p=0.042$). Additionally, a correlation between MLS and the remission status was found ($p<0.001$).

Conclusions The MLS is a 10 minute easy to administer questionnaire in clinical routine. To be highlighted is that the MLS considers subjective health parameters, like Qol which might be relevant for disease treatment. Further results will be presented at the conference.

P173 IS USE OF HYDROXYCHLOROQUINE ASSOCIATED WITH BETTER PATIENT REPORTED OUTCOMES IN LUPUS?

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Background Use of Hydroxychloroquine (HCQ) is known to be associated with less disease activity, flares, damage and better survival in patients with Systemic Lupus Erythematosus (SLE). It is not known if its use is also associated with better patient reported health outcomes, a core outcome in SLE.

Methods International data from Study on Outcomes of Lupus (SOUL) on LupusPRO, a patient reported disease targeted Quality of life (QOL) tool, from 2,157 patients with SLE, were compared based on use HCQ. Disease activity and damage were assessed using SELENA-SLEDAI and SLICC-ACR/SDI. T tests and Chi square tests were used for comparisons. Linear regression analyses were undertaken with summary LupusPRO health (HRQOL), non-health (NHRQOL) and Lupus Impact Tracker (LIT) scores as the dependent variables, and HCQ as the independent variable. LIT scores were derived from LupusPRO data. Similar analysis for damage was also conducted.

Results Mean age was 40.5 ± 12.8 years. Ninety-three percent were women. HCQ use 798/2157 (37%) was inversely associated with age, Asian race, disease duration, lupus nephritis, neurological and hematologic manifestations, and damage. HCQ use was directly associated with presence of photosensitivity. On univariate analysis, HCQ use was associated with better QOL (β 6.19, 95% CI 4.15, 8.24, P ≤0.001 for LupusPRO-HRQOL) and less impact on daily life (β -9.37, 95% CI -12.24, -6.50, P ≤0.001 for LIT). Other predictors for QOL and LIT were age, education, Asian race and disease activity. On multivariate analyses (adjusted for age, education, Asian status) use of HCQ was independently associated with better outcomes (LupusPRO-HRQOL and LIT). However, addition of disease activity variable to the models resulted in loss of independent association of HCQ use with better outcomes, suggesting mediation through disease activity (table 1). Similarly, mediation was seen for beneficial effects of HCQ use on damage through disease activity.

Conclusions HCQ use in SLE is associated with better health outcomes (LupusPRO-HRQOL, impact on daily life, damage), and the effects are mediated through disease activity modification.

Acknowledgements Behalf of SOUL group.

P174 EXTENDED ARTERIAL ULTRASOUND REVEALING INCREASED INTIMA MEDIA THICKNESS AND RELATION TO IMPAIRED MICROCIRCULATION IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Background Systemic lupus erythematosus (SLE) is a chronic inflammatory disease characterized by multiple organ involvement. Atherosclerosis is the underlying cause of SLE-related cardiovascular disease. With high frequency ultrasound it is possible to differ between atherosclerosis and inflammatory findings in the vessel wall. Our hypothesis is that both macro- and microcirculation are impaired in SLE.

Methods Sixty patients (52 women, 8 men), range 23–63 years, classified with SLE according to the 2012 SLICC criteria, and 60 healthy controls (52 women, 8 men), range 23–63 years, were investigated. Intima-media thickness (IMT) was recorded with high frequency ultrasound (GE Logic E9) in common carotid arteries (CCA), common femoral arteries (CFA) and the aortic arch. Microcirculatory oxygen saturation was assessed with EPOS (Enhanced Perfusion and Oxygen Saturation) (PeriFlux 6000, Perimed, Järfälla, Sweden). The EPOS system measures red blood cell tissue fraction, speed resolved perfusion and oxygen saturation in the microcirculation of the skin.

Results IMT in common carotid artery (CCA) was 0.56±0.10 mm in SLE patients vs 0.54±0.13 mm in healthy controls (ns). IMT in common femoral artery (CFA) was 0.58±0.24 mm in SLE patients vs 0.48±0.12 mm in healthy controls

Abstract P173 Table 1 Mediation of effects of HCQ use with outcomes through disease activity

	LIT						LupusPRO-HRQOL					
	Univariate			Multivariate			Univariate			Multivariate		
Variable	B	95% CI	p-value	B	95% CI	p-value	B	95% CI	p-value	B	95% CI	p-value
Activity (SLEDAI)	2.040	0.90, 3.18	≤0.001	2.830	1.25, 4.40	≤0.001	-1.84	-2.70, -0.97	≤0.001	-2.29	-3.59, -0.98	0.001
HCQ	-9.370	-12.24, -6.50	≤0.001	-3.050	-7.93, 1.84	0.221	6.190	4.15, 8.24	≤0.001	3.640	-0.46, 7.73	0.080

($p<0.0001$). IMT in the aortic arch was 1.21±0.63 mm in SLE patients vs 0.98±0.25 mm in healthy controls ($p=0.002$). Areas of increased IMT showed regular wall thickening of medium echogenicity indicating possible inflammatory origin. Microcirculation as measured with mean oxygen saturation peak was decreased in SLE patients versus controls, 83.7 ±7.8% vs 86.7±4.6% ($p=0.01$).

Conclusion This study indicates that an extended ultrasound protocol to detect possible inflammatory vessel wall changes and/or early atherosclerosis in SLE is of value. In addition we showed impaired microcirculatory function as measured with EPOS in SLE patients. Further validation of macro and microcirculatory lesions are warranted in larger studies.

P175 DESPITE THE HIGH RATE OF RESPONSE TO TREATMENT, LUPUS NEPHRITIS STANDARD OF CARE IS STILL ASSOCIATED WITH HIGH INCIDENCE OF CHRONIC KIDNEY DISEASE: A RETROSPECTIVE LONGITUDINAL STUDY, FROM THREE SOUTH-EUROPEAN COHORTS OF PATIENTS IN FOLLOW-UP SINCE 2000

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Background One of the most important complications of lupus nephritis (LN) is the chronic kidney disease (CKD) development.

Methods Multicenter retrospective observational study of SLE patients (ACR97) with biopsy proven LN attending to three South European Rheumatology departments in the last two decades. Variables: demographics; SLE-related, including global activity (SLEDAI-2K), renal flares, therapies, ACR response criteria and CKD. Statistical analysis: bivariate and multivariate analysis exploring factors associated to CKD. ROC curves and area under the curve were calculated to test each proteinuria level as predictor of long-term renal outcome.

Results Seventy-six patients were included, mean age: 33 years; mean disease duration: 14 years; mean follow-up (since LN diagnosis): 8,5 years. LN class III, IV and V were present in 22%, 75% and 3% of the cases, respectively. Cyclophosphamide was the most used treatment to induce remission (55%). At 3, 6 and 12th months, the mean proteinuria was 2.3 g/24h, 1.53 g/24h, 1.1 g/24h, respectively ($p<0.001$). Fifty-five (77,5%) achieved complete response and 61 (84.7%) complete or partial response. Median time to renal remission: 12.5 months (6,17.5). Sixteen (21.9%) patients developed CKD.

In the logistic regression model, using genetic algorithms, we found that proteinuria at 6 months was significantly associated with CKD (OR:2.95; 95%CI 1.19,9.29, $p=0.03$). Hypertension and male sex were marginally associated ($p=0.06$, both). The optimal cut-off point of proteinuria at 6 months was 0.7 g/day, (sensitivity: 50%; specificity: 93%).

Conclusions A considerable percentage of LN developed CKD. Proteinuria at 6 months was associated with CKD. An absolute level of proteinuria below 0.7 g/day measured at 6 months is the best predictor of long-term renal outcomes.

P176 A CASE OF LUPUS ENTERITIS SUCCESSFULLY TREATED WITH ANTI-TNF ALPHA INHIBITOR

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Background Gastro-intestinal manifestations in systemic lupus erythematosus (SLE) can affect up to 40% of patients, including enteritis presenting as mesenteric vasculitis, pseudo-obstruction or protein-losing enteropathy. We present a case of lupus enteritis successfully treated with anti-TNFalpha inhibitor.

Methods A 28-year-old woman was evaluated for diarrhea, abdominal pain, fever and rectal bleeding not responsive to antibiotics. She had a thirteen-year history of SLE in remission with Mycophenolate Mofetil and previous muco-cutaneous and haematologic relapses, myocarditis and end-stage renal disease (IV-class glomerulonephritis). She previously underwent multiple immunosuppressants including ciclophosphamide, cyclosporine,anti-CD20, immunoglobulins. One month before the onset of symptoms she discontinued MMF for worsening anemia. Simultaneously we reported signs of lupic flare (low C3, haemolytic anemia, lymphopenia, fever, arthralgias and malar rash). Pulse-steroids and IVIg followed by cyclosporine were initially performed with only temporary benefit. Enteric CT-scan and endoscopy revealed chronic and acute colo–rectal and gastric inflammation (cryptitis, erosions, necrosis, microgranulomas). Anti-TNFalpha inhibitor Infliximab (5 mg/kg) was added to Azathioprine 50 mg/daily. Within a month we observed clinical and serological sustained remission.

Results Typically, mesenteric vasculitis involves small arteries or venules. Histological examination reveals submucosal and muscular layers infiltration and necrotizing vasculitis, with panmural predominant eosinophilic, neutrophilic or mixed infiltrate. The distinction of inflammatory bowel disease (IBD) from enteric-SLE can be challenging. In this case, an early anti-flogistic therapy may have led to uncomplete microscopic patterns not fullfilling criteria neither for enteric vasculitis nor IBD. A lupic flare with predominant gastro-enteric presentation is the most plausible hypothesis because of the infrequent association between SLE and IBD and simultaneous extra-intestinal lupic features. Abdominal involvement in a patient previously treated with high dosage cyclophosphamide (10 g) and the lack of response to azathioprine lead to the introduction of anti-TNFalpha inhibitor.

Conclusion The role of TNFalpha in SLE is controversial and TNFalpha inhibitors are reported to control SLE-arthritis. Further studies are needed to evaluate their role in the management of gastro-enteric SLE.