



Abstract 174 Figure 1

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LOW DISEASE ACTIVITY STATE (LDAS) PREDICTS A BETTER HEALTH-RELATED QUALITY OF LIFE (HRQOL) IN SYSTEMIC LUPUS ERYTHEMATOSUS (SLE) PATIENTS

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Background LDAS is an achievable goal in the treatment of SLE patients and it is associated with a lower probability of flares, damage and mortality; whether HRQoL is also

influenced by LDAS has only been evaluated cross-sectionally but not longitudinally. The aim of this study was to determine if achieving LDAS predicts a better HRQoL

Methods SLE patients from a single center cohort with at least two visits were included. Visits were performed every six months. HRQoL was measured with the Lupus-QoL, disease activity with the SLEDAI-2K, damage with the SLICC/ACR damage index (SDI) and comorbidities with the Charlson Comorbidity Index (CCI). LDAS was defined as a SLEDAI-2K4, prednisone daily dose 7.5 mg/d and immunosuppressive drugs on maintenance dose; patient on remission were also included in this group. Generalized estimating equations were performed, using as outcome each one of the eight components of the LupusQoL in the subsequent visit, and the activity state in the previous visit; as possible confounders, we included disease duration, SDI, CCI,

Abstract 175 Table 1 Impact of LDAS on HRQoL. Univariable and multivariable analyses

	Univariable		Multivariable	
	B (IC95%)	p value	B (IC95%)	p value
Physical health	6.48 (2.39; 10.57)	0.002	4.17 (1.20; 7.14)	0.006
Pain	7.33 (2.86; 11.81)	0.001	6.47 (3.17; 9.76)	<0.001
Planning	6.01 (1.49; 10.53)	0.009	4.97 (1.43; 8.52)	0.006
Intimate relationship	4.12 (-2.46; 10.70)	0.220	4.71 (-0.81; 10.23)	0.094
Burden to others	5.36 (0.48; 10.25)	0.032	4.12 (0.24; 8.01)	0.037
Emotional health	6.06 (1.82; 10.31)	0.005	4.50 (1.56; 7.44)	0.003
Body image	1.68 (-2.90; 6.27)	0.472	1.13 (-2.80; 5.03)	0.577
Fatigue	4.23 (-0.20; 8.67)	0.061	3.25 (0.04; 6.47)	0.048

antimalarial use on each visit and age at diagnosis, gender, socioeconomic status and the same component of the Lupus-QoL at the baseline visit.

Results Two hundred and forty-three patients were included, 225 (92.6%) were female, mean age at diagnosis was 35.44 (SD: 13.13) years. Patients had a mean of 3.94 (1.98) visits for a total of 958 visits. During the follow-up, 590 (61.6%) visits were categorized as LDAS. LDAS predicted a better HRQoL in the components of physical health [B: 4.17 (95% CI: 1.20; 7.14); $p=0.006$], pain [B: 6.47 (95% CI: 3.18; 9.76); $p<0.001$], planning [B: 4.97 (95% CI: 1.43; 8.52); $p=0.006$], burden to others [B: 4.12 (95% CI: 0.24; 8.01); $p=0.037$], emotional health [B: 4.50 (95% CI: 1.56; 7.44); $p=0.003$] and fatigue [B: 3.25 (95% CI: 0.04; 6.47); $p=0.048$], as is depicted in table 1.

Conclusions Being on LDAS predicts a better HRQoL, especially in the components of physical health, pain, planning, burden to others, emotional health and fatigue.

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LUPUS LOW DISEASE ACTIVITY STATE: PREDICTING ORGAN DAMAGE ACCRUAL AND CARDIOVASCULAR RISK IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background Systemic Lupus Erythematosus (SLE) is a heterogeneous disease that can cause multisystem inflammation and damage. There are currently no widely agreed upon targets for determining adequate disease control. Lupus Low Disease Activity State (LLDAS) is a new clinical evaluation tool that assesses low disease activity state in lupus patients (Franklyn, et al. *Ann Rheum Dis.* 2016; 75: 1615–1621). Our study examines the relationship between the percentage of time

Abstract 176 Table 1 Effects of LLDAS on cardiovascular events or death

	LLDAS ≥ 50%	LLDAS < 50%	Total
Death or CV Events	19	34	53
Total Patients	111	108	219
% Death or CV Events	17.1%	31.4%	24.2%

* $\chi^2 = 0.013$

* CV = cardiovascular (defined as major stroke, myocardial infarction, positive stress test, angioplasty or percutaneous coronary intervention)

Correlation Between LLDAS and Cardiovascular Events or Death. Patients in LLDAS 50% of the time suffer from significantly fewer cardiovascular events or deaths than their non-LLDAS counterparts

patients spend in LLDAS and organ damage accrual, cardiovascular events, and death.

Methods We studied a prospective cohort of 246 patients with SLE during a 5 year follow-up period. Disease activity was measured using the SLE Disease Activity Index 2000 (SLEDAI-2K) and SELENA-SLEDAI physician global assessment (PGA). Cumulative organ damage was assessed at 1 year, 3 year, and 5 year intervals using the Systemic Lupus International Collaborating Clinics/American College of Rheumatology Damage Index (SDI). The determination of LLDAS 50% of the time for the year after cohort entry (LLDAS-50) was done retrospectively through clinical chart review. The following criteria for LLDAS included: SLEDAI-2K 4 without major organ activity, no new disease activity, PGA (0–3) 1, prednisone 7.5 mg/day and stable dose of maintenance treatments. The longitudinal presence of carotid plaque and intima-media thickness (IMT) was measured at baseline and follow-up three years later. We determined the relationships between LLDAS, SDI, IMT, carotid plaque, and PREDICTS profile using multivariate regression analysis.

Results The average age was 43.2 years for patients in LLDAS-50 and 39.5 years for those not in LLDAS-50 ($p=0.03$). Disease duration was 13.4 years for LLDAS 50% vs. 10.9 years for LLDAS<50% ($p=0.04$). Patients in LLDAS-50 or higher during the year after cohort entry had a mean SDI score of 1.5 (± 1.8) at 1 year, a mean SDI of 1.6 (± 1.9) at 3 years, and 1.9 (± 2.1) at 5 years after cohort entry. On average, patients who were in LLDAS-50 during the first year after cohort entry had lower SDI scores at 3 years and 5 years than patients who were not, reaching significance ($p=0.04$) for both.