CE-19 **REMISSION AND LOW LUPUS DISEASE ACTIVITY STATUS (LLDAS) PROTECT LUPUS PATIENTS FROM DAMAGE OCCURRENCE: DATA FROM A MULTI-ETHNIC, MULTINATIONAL LATIN AMERICAN LUPUS COHORT**

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Background Recently, definitions of both Remission and LLDAS have been proposed which include disease activity status and medication intake [immunosuppressive (IS) drugs and corticosteroids]. The aim of this study was to evaluate both on the outcome of SLE patients.

Materials and methods Interval was defined as the period between two SLEDAIs or between one SLEDAI and the end of the follow-up. Four disease activity statuses were defined: Remission off-therapy = SLEDAI = 0 without prednisone or IS drugs; Remission on-therapy = SLEDAI = 0 and a prednisone dose ≤5 mg/d and/or IS drugs in maintenance dose; LLDAS = SLEDAI≤4, a prednisone dose ≤7.5 mg/d and/or IS drugs in maintenance dose; and non-optimally controlled status = SLEDAI >4 and/or prednisone dose >7.5 mg/d and/or IS drugs in induction dose. Antimalarials were allowed in all groups. Predefined outcomes were mortality, new damage [defined as an increase of at least 1 point in the SLICC/ACR damage index (SDI)] and severe new damage (defined as an increase of at least 3 points in the SDI). Univariable and multivariable Cox regression models adjusted for possible confounders were performed in order to define the impact of disease activity status, as time-dependent variable, on these three outcomes.

Results One thousand three hundred and fifty patients from the GLADEL cohort, with at least two intervals, were included, including 5672 intervals. Median length of the intervals was 7.1 months (interquartile rank 5.1–11.7). Median number of intervals per patients was 4 (2–7). The most frequent interval was non-optimally controlled (4446; 78.4%), followed by LLDAS (566; 10.0%), remission on-therapy (553; 9.7%) and remission off-therapy (107; 1.9%). Seventy-nine patients died during the follow-up, 606 presented new damage and 177 severe new damage. Because of the limited number of intervals in the off-therapy group, this group was combined with the on-therapy group. The impact of these disease activity statuses on the pre-specified outcomes is depicted in Table 1. Of importance, in multivariable analyses, remission on/off therapy was associated with both, a lower risk of new damage (HR: 0.52; 95% CI: 0.37–0.72), and of severe new damage (HR: 0.32; 95% CI: 0.15–0.65); LLDAS was associated with a lower risk of severe new damage (HR: 0.46; 95% CI: 0.23–0.91). Although the HR were in the right direction for the mortality outcome, the confidence intervals were too wide, probably because of the relative low number of events in this category.

Conclusions Remission on/off therapy diminished the risk of new and severe new damage, and LLDAS diminished the risk of severe new damage after adjusting for other well-known risk factors of damage.

Abstract CE-19 Table 1 Impact of disease activity statuses on mortality, new damage and severe new damage. Univariable and multivariable analyses

Group	Mortality		New damage**		Severe new damage***	
	Unadjusted Hazard Ratio (95% CI)	Adjusted* Hazard Ratio (95% CI)	Unadjusted Hazard Ratio (95% CI)	Adjusted*Hazard Ratio (95% CI)	Unadjusted Hazard Ratio (95% CI)	Adjusted* Hazard Ratio (95% CI)
Remission (On/Off Therapy)	0.46	0.56	**0.47**	**0.52**	**0.30**	**0.32**
	(0.17–1.27)	(0.20–1.55)	**(0.34–0.65)**	**(0.37–0.72)**	**(0.16–0.60)**	**(0.15–0.65)**
p-value	0.1330	0.2623	**< 0.0001**	**< 0.0001**	**0.0006**	**0.0017**
LLDAS	0.65	0.81	**0.69**	0.74	**0.41**	**0.46**
	(0.26–1.60)	(0.32–2.02)	**(0.50–0.93)**	(0.54–1.01)	**(0.21–0.81)**	**(0.23–0.91)**
p-value	0.3454	0.6476	**0.0164**	0.0610	**0.0100**	**0.0247**
Non-Optimally Controlled	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.

LLDAS: Lupus low disease activity status. *Adjusted by age at baseline, gender, ethnicity, socioeconomic status, years of instruction, medical coverage and first SDI. **One-point increment in the SDI. ***Three-point increment in the SDI.

CE-20 | **LUPUS AUTO-ANTIBODIES AND CLINICAL OUTCOMES AMONG JAMAICAN SLE PATIENTS**

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Background The purpose of this study is to correlate lupus antibodies with clinical features of Jamaican SLE patients and assess their predictive value.

Materials and methods The study was guided by two research questions. To answer these questions, an ex-post facto research design was used. This design was used because the subjects already had Lupus before treatment, which paved the way for a retrospective study of possible relationships and effects of the treatments to be conducted. The sample size used was (n = 136). Between May 2009 and December 2010, 136 SLE patients were tested for auto-antibodies.

Results Fifty five percent were positive for anti-ssDNA, 35% positive for anti-dsDNA, 46% for anti-Sm, 83% for anti-RNP/Sm, 76% for anti-Ro, 31% for anti-La, 30% for anti-histone and 65% for anti-chromatin. After a mean follow up of 4.5 years, the findings showed that elevated ssDNA and dsDNA in the initial samples were predictive of proteinuria, while elevated anti-Sm levels were predictive of proteinuria, low haemoglobin, lymphopenia and increased heart rate. The results of the Pearson Product Moment Correlation showed a weak to moderation relationships between ssDNA and Creartinine ($r = 0.209$, $p < 0.05$); DMARD use ($r = 0.226$, $p < 0.05$); Proteinuria ($r = 0.286$, $p < 0.01$); and Average Prednisone Dose (APD) ($r = 0.363$, $p < 0.01$). A weak to moderation relationships were also observed between dsDNA and Hb ($r = -0.218$, $p < 0.05$); Proteinuria ($r = 0.399$, $p < 0.01$); and APD ($r = 0.457$, $p < 0.01$). Anti SM correlated with Proteinuria ($r = 0.374$, $p < 0.05$) while anti RNP/SM correlated with Hb ($r = 0.304$, $p < 0.05$), and anti-Histone correlated with Proteinuria ($r = 0.461$, $p < 0.05$). The simple regression analysis conducted to examine if SM be used to predict heart rate, Hb, and Lymphocytes. The results were significant: Hb ($R^2 = 0.217$, $F = 23.843$, $p < 0.01$); Hb and APD ($R^2 = 0.262$, $F = 15.070$, $p < 0.01$); and Hb, APD and organ involvement ($R^2 = 0.305$, $F = 12.311$, $p < 0.01$).

Conclusions This retrospective study showed that elevated ssDNA and dsDNA in the initial samples were predictive of proteinuria, while elevated anti-Sm levels were predictive of proteinuria, low haemoglobin, lymphopenia and increased heart rate.

CE-21 | **THE PREVALENCE AND DETERMINANTS OF ANTI-DFS70 ANTIBODIES IN AN INTERNATIONAL INCEPTION COHORT OF SYSTEMIC LUPUS ERYTHEMATOSUS (SLE) PATIENTS**

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