We studied a prospective cohort of 245 patients with SLE during a 5-year follow-up period. Disease activity was measured using the SELENA SLE Disease Activity Index (SELENA-SLEDAI) and the 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 (LLDAS-50) was done retrospectively through clinical chart review. The longitudinal presence of carotid plaque and intima-media thickness (IMT) was measured at baseline and follow-up three years later. Relationships between LLDAS, SDI, IMT, carotid plaque, and PREDICTS profile were determined using multivariate regression analysis. T-tests were used for analysis of continuous variables and chi-squared for parametric variables.

**Results**

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 than patients who were not, reaching near significance (p = 0.059). Similar results were found with patients who were in LLDAS-50 at 5 years, who had a near significantly lower mean SDI score than those who were not in LLDAS-50 at 5 years (p = 0.06).

The average age was 42.8 years for patients in LLDAS-50 and 39.5 years for those not in LLDAS-50 (p = 0.048).

There was no significant difference in measured IMT or plaque progression between patients in LLDAS-50 and those not in LLDAS-50 at either baseline or 3-year follow-up.

Patients in LLDAS-50 were significantly less likely to have major cardiac events (defined as major stroke, myocardial infarction, positive stress test, angioplasty or percutaneous coronary intervention) or death compared with patients who were not in LLDAS-50, 22.4% and 41.5%, respectively (p = 0.018).

**Conclusion**

We assessed SLE patients in LLDAS in our cohort of 245 patients. With regard to damage progression, there was near significantly less damage among those in LLDAS-50. Interestingly, there is no difference between IMT or plaque progression at any of the three time points. Nonetheless, there was a statistically significant difference in number of deaths or any cardiovascular events in favor of a lower percentage for those in LLDAS-50.

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