Variables associated with clinical activity and damage accrual in a sample of Hispanic patients with systemic lupus erythematosus (SLE)

QUESTION

Are there demographic, clinical and laboratory data that may identify patients at higher risk of having significant levels of clinical activity and significant levels of damage accrual at the study cross-section?

OBJECTIVE

Systemic lupus erythematosus (SLE) is an autoimmune disease of worldwide distribution affecting aproximately 250/100000 of the general population, with a predilection for young female over male individuals in a relation 10:1. It has been recently identified a higher susceptibility and a potentially more severe disease among the Hispanic as compared to the Caucasian populations, partly due to the contribution of Amerindian risk genes. The disease may follow diverse clinical courses, from a benign condition affecting only skin and joints to a potentially fatal disease compromising vital organs such as the central nervous system, lungs and kidneys. There are validated instruments that allow for the assessment of the levels of current clinical activity of the disease as well as the organ damage accrual in a patient, at a given moment of his/her disease course.

The purpose of this study is to examine the association of various demographic, clinical and laboratory data potentially related to current levels of clinical activity and current organ damage accrual in a sample of Hispanic patients with SLE

METHODS

- Patients were diagnosed following the American College of Rheumatology 1987 classification criteria for the diagnosis of SLE (N =97)
- Type of study: a cross sectional study in consecutive patients attending an oupatient clinic at a University Hospital
- Patients were evaluated by a certified rheumatologist and diverse demographic, clinical and laboratory data were acquired and then loaded in an Excel database
- Levels of clinical activity were measured using the Systemic Lupus Erythematosus Disease Activity index (SLEDAI). A significant SLEDAI was considered ≥ 4
- Levels od organ damage accrual were determined using the Damage Index of the Systemic Lupus International Collaborative Clinics/American College of Rheumatology (DI SLICC). A significant DI was considered ≥ 2
- The study was aproved by the Bioethics Committee of our hospital and all patients signed an informed consent

STATISTICAL ANALYSIS

- Descriptive statistics will be obtained. Means or media will be used according to data distribution. Several demographic and clinical independent variables will be examined on their potential correlation with the SLEDAI value (a measure of current clinical activity) or DI SLICC (a measure of organ damage accrual), as the two different dependent variables. Contingency tables and, if pertinent, the Fisher test will be used for analysis of categorical variables, two-tailed Student´s t-test or Mann-Whitney test for the analysis of continuous variables, depending of the data distribution. Univariate regression analysis will be performed to identify correlations between the independent variables and the dependent variables, followed by multivariate analysis to identify the independence or co-dependence of the independent variables previously identified as statistically significant in the univariate analysis.