FACTORS ASSOCIATED WITH TIME TO SEVERE LUPUS NEPHRITIS IN A COHORT OF COLOMBIAN PATIENTS

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Background: Systemic lupus erythematosus (SLE) clinical manifestations, and their severity, vary according to age, ethnicity and socioeconomic status. Both Hispanic and Afro-Americans have a higher incidence and more severe presentation when compared to Caucasian patients with SLE

Objectives: To analyze clinical and immunological characteristics associated with time to severe renal involvement in patients with Systemic Lupus Erythematosus in a Colombian cohort followed for one year, between January 2015 and December 2016

Methods: Retrospective follow-up study based in clinical records. Patients with SLE diagnosis that fulfilled either 1987 American College of Rheumatology Classification Criteria for SLE or 2011 Systemic Lupus International Collaborating Clinics (SLICC) classification criteria for SLE. We included patients with diagnosis of lupus nephritis according to Wallace and Dubois criteria. Patients who did not have at least two follow-up measurements or had a cause of nephritis other than lupus were excluded. The main outcome was defined as time from diagnosis to severe renal involvement defined as creatinine clearance ≤50 ml/min, 24-hour proteinuria ≥3.5 grams o end stage renal disease.

We analyzed clinical and immunological characteristics. Descriptive statistical analyses of participant data during the first evaluation are reported as frequencies and percentages for categorical variables, and as medians and interquartile ranges (IQR) for quantitative variables. Age and sex adjusted survival functions and Hazard ratios (HR) with 95% confidence intervals and p-values were estimated using parametric Weibull models por interval-censored data. P values < 0.05 were considered statistically significant

Results: 548 patients were analyzed. 67 were left-censored as they presented renal involvement at entry. 6 were interval censored as outcome occurred between study visits, and 475 were right-censored as involvement was not registered during follow-up. 529 (96.5%) patients were female, median age at entry was 46 (IQR = 23) and median age to diagnosis was 29.5 (IQR = 20.6). 67% were mestizo, 13% Caucasian and 0.3% Afro-Columbia. Age and sex adjusted variables associated with time to severe lupus nephritis were high blood pressure HR = 3.5 (95%CI 2.2-5.6; p-value <0.001) and Anti-Ro (per unit increase) HR = 1.002 (95%CI 1.001-1.004; p-value = 0.04). Figure 1 shows age and sex adjusted survival function.

![Age and sex adjusted survival function](image)

Conclusion: In our cohort the appearance of severe lupus nephritis occurs in less than 15% of patients at 10 years. Both high blood pressure and elevated anti-Ro titers were associated with a higher rate of onset in the presentation of severe lupus nephritis, as seen in some polymorphs of anti Ro.

References:

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RENAI LN IN SYSTEMIC LUPUS ERYTHEMATOSUS CHARACTERIZED BY THROMBOTIC MICROANGIOPATHY

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Background: Classical lupus nephritis (LN) is characterized by glomerular immune complex(IC) deposition with glomerular proliferation, basement membrane destruction and cell infiltration. Non-IC mediated renal injury with thrombotic microangiopathy (TMA) was also reported in patients with systemic lupus erythematosus (SLE-renal TMA), but most studies were reported in patients with both LN and renal TMA.

Objectives: To analyze clinical and immunological characteristics associated with time to severe lupus nephritis were high blood pressure (HR) with 95% confidence intervals and p-values were estimated using parametric Weibull models por interval-censored data. P values < 0.05 were considered statistically significant

Results: 548 patients were analyzed. 67 were left-censored as they presented renal involvement at entry. 6 were interval censored as outcome occurred between study visits, and 475 were right-censored as involvement was not registered during follow-up. 529 (96.5%) patients were female, median age at entry was 46 (IQR = 23) and median age to diagnosis was 29.5 (IQR = 20.6). 67% were mestizo, 13% Caucasian and 0.3% Afro-Columbia. Age and sex adjusted variables associated with time to severe lupus nephritis were high blood pressure HR = 3.5 (95%CI 2.2-5.6; p-value <0.001) and Anti-Ro (per unit increase) HR = 1.002 (95%CI 1.001-1.004; p-value = 0.04). Figure 1 shows age and sex adjusted survival function.

Conclusion: In our cohort the appearance of severe lupus nephritis occurs in less than 15% of patients at 10 years. Both high blood pressure and elevated anti-Ro titers were associated with a higher rate of onset in the presentation of severe lupus nephritis, as seen in some polymorphs of anti Ro.