

antihypertensive drug (69%) use were similar across ethnic subgroups (all  $p > 0.2$ ). After a mean follow-up of 95 months, eight patients (9%) had died, six (7%) received renal replacement therapy and five (6%) had developed CKD. Five and ten years patient survival was similar for Asian and Caucasian patients (95%) and poorest in Aborigines (81% and 70%) ( $p = 0.016$ ) with no impact of gender, ISN class, full house IF findings or PCR  $> 300$ . Renal 5 and 10 year survival (endpoint RRT) was 100% for Asian, 100% and 96% for Caucasian vs 86% and 64% for Aborigines ( $p = 0.02$ ). PCR  $> 350$  predicted worse renal survival ( $p = 0.03$ ), which was not influenced by gender, increased baseline creatinine, ISN class, A/AC/C subclass or presence of full house IF deposits.

**Conclusions:** Asian patients have similar clinical and histological LN findings and experience equally good renal and patient outcomes as Caucasian patients in Western Australia, where the incidence rate of LN is comparable with Europe. Whether the grim outlook for Aboriginal patients relates to intrinsic differences in LN pathophysiology and/or socioeconomic circumstances deserves further study.

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AB0587

#### HAEMATOLOGICAL ALTERATIONS IN COLOMBIAN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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**Background:** Systemic Lupus Erythematosus (SLE) is an autoimmune disease, with multiple organs and system involvement. The most usual haematological findings are anaemia, leukopenia, and thrombocytopenia. The prevalence of SLE in Colombia was 8.77 per 10 000 persons between 2012 and 2016.<sup>1</sup>

**Objectives:** To evaluate the haematological alterations in a cohort of patients with SLE in Bucaramanga, Colombia.

**Methods:** A retrospective cohort study of 149 patients diagnosed with SLE according to the Systemic Lupus International Collaborating Clinics (SLICC) criteria. Descriptive analysis with frequencies, measures of central tendency and dispersion was done using Stata 12.0 software. The primary outcome was the presence of cytopenia, the secondary outcomes were anaemia, leukopenia, and thrombocytopenia. In the group comparison analysis, a chi-square test was used for qualitative variables and Wilcoxon or T student test for quantitative variables according to their distribution. Bivariate analysis using logistic regression with OR measurement, *p*-value, and confidence intervals was performed.

**Results:** 82.5% were women, average age was 36.8 years. The primary outcome was found in the 79.8%, anaemia in the 76.5%, thrombocytopenia in the 22.1% and leukopenia in the 18.7%. In group comparison analysis (cytopenia vs no cytopenia) a statistical difference was found in the variables sex ( $p = 0.023$ ), skin involvement ( $p = 0.003$ ), acute pneumopathy ( $p = 0.050$ ), activity of the disease measured by the ECLAM scale ( $p = 0.037$ ) and anti-DNA antibody titers ( $p = 0.032$ ). In the bivariate analysis, there was an increased risk of cytopenias with statistical significance in male patients (OR: 3.82), ECLAM score greater than 5 (OR: 4.75) and strongly positive anti-DNA antibodies (OR: 3.97). Regarding leukopenia, there was an association with antiphospholipid syndrome (OR: 2.75), ECLAM greater than 5 (OR: 2.51), SLEDAI MEX greater than 10 (OR: 2.35) and strongly positive anti-DNA antibodies (OR: 2.36). Likewise, an increased risk of mortality was found in patients with leukopenia (OR: 3.92). In the case of thrombocytopenia, an association was found with a pericardial alteration (OR: 2.46), ECLAM greater than 5 points (OR: 3.65), SLEDAI MEX greater than 10 points (OR: 2.42). An association with mortality was also observed (OR: 2.97). The risk of presenting anaemia was increased with the variables man (OR: 4.4), ECLAM greater than 5 points (OR: 3.14) and strongly positive anti-DNA antibodies (OR: 3.25).

**Conclusions:** This is the first Colombian study that evaluates haematological alterations in patients with SLE. The most frequent cytopenia was anaemia. It is possible to identify variables that can predict the appearance of cytopenia, such as the increase in the activity of the disease, which is susceptible to intervention. It is noteworthy that both leukopenia and thrombocytopenia are markers of mortality in patients with SLE.

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#### IDENTIFICATION OF RISK FACTORS FOR HERPES VIRUS INFECTIONS WITH IMMUNOPHENOTYPING DURING INDUCTION THERAPY IN PATIENTS WITH ACTIVE LUPUS NEPHRITIS

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**Background:** Herpes virus infections (HVs) including cytomegalovirus infections (CMVs) and herpes zoster (HZ) remains as major complications during treatments with immunosuppressant (IS) in patients with autoimmune diseases.<sup>1, 2</sup> Previous reports have suggested the associations between virus infections and characteristics of T cells.<sup>3, 4</sup>

**Objectives:** To elucidate the characteristics of peripheral immune cells associated with risk factors of HVs during induction therapies in patients with active lupus nephritis (LN).

**Methods:** Standardised peripheral immunophenotyping was performed using flow cytometry in active LN and ANCA-associated vasculitis (AAV) patients starting induction therapy and also with inactive LN patients with maintenance therapy between April 2015 to April 2017. The definition of HVs was the infection necessary to administer anti-viral agents.

**Results:** Sixty-two LN patients and 11 AAV patients were enrolled. Among 30 active LN patients, 27 were analysed except for 3 patients (2 died and 1 withdrawn consent). Mean age was 41.7 years, 9 patients (33%) had newly-onset, and mean SLE disease activity index (SLEDAI) was 19.3. All active LN patients were treated with prednisolone (PSL) (mean 51.7 mg/day) and 25 were treated with an additional IS (cyclophosphamide [CYC];13, mycophenolate mofetil;8, tacrolimus;3, rituximab [RTX];1). Six (22.2%) patients developed HVs (5 CMVs and 1 HZ) within 3 months following induction therapy. None of the 32 LN patients in maintenance phase (mean age, 54.8; SLEDAI, 2.5; PSL 2.5 mg/day) developed HVs during the mean 2.8 years-observational period. Two (18.2%) AAV patients developed HVs within 3 months following induction therapy. All AAV patients (mean age, 64.3) were treated with PSL (mean 41.8 mg/day) and 10 with IS (CYC;5, RTX;3, azathioprine;1, methotrexate;1).

Among active LN patients, univariate analysis revealed that older age, lower proportions of naïve CD8 +T cells, higher proportions of effector CD8 +T cells and HLA-DR +regulatory T cells (Tregs) at baseline and lower naïve CD8 +T cells at month 3 associated with HVs ( $p = 0.011$ ,  $p < 0.001$ ,  $p = 0.009$ ,  $p = 0.024$ ,  $p < 0.001$  respectively). Unexpectedly, lymphocyte count, IgG titer, usage of CYC at baseline, renal response and change in SLEDAI at month 3 did not associate with HVs. Multivariate analysis revealed that low proportions of naïve CD8 +T cells and high proportions of HLA-DR +Tregs at baseline were the only detectable independent risk factor for HVs ( $p = 0.014$ ).

Among AAV patients, univariate analysis showed that older age, lower proportions of naïve CD8 +T cells, higher proportions of Tregs at baseline associated with HVs. However, multivariate analysis showed no independent risk factor for HVs among them.

**Conclusions:** Our results suggest that active LN patients with low proportion of naïve CD8 +T cells and high HLA-DR +Tregs at the time of induction therapy should be closely monitored for HVs. The different results between LN and AAV implicated the different risks of HVs by immunophenotyping. Larger prospective study is desired to confirm our results.

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