patients being able to restart HCQ after ophthalmologic examination in this study shows that it is important to perform multimodal imaging techniques in patients with retinal toxicity diagnosis. Since macular pathology can have a different etiologic background, an initial ophthalmologic examination is also necessary. Lack of difference in the duration of HCQ exposure and drug-free time between patients who restarted treatment and who could not may be a sign of personal sensitivity to HCQ toxicity.

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SAT0179

ADHERENCE TO HYDROXYCHLOROQUINE INFLUENCES THE INCIDENCE OF ORGAN DAMAGE DURING FOLLOW-UP IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background:

Objectives: Hydroxychloroquine (HCQ) is a cornerstone drug in patients with systemic lupus erythematosus (SLE), decreasing the risk of flares and comorbidities and improving survival. This study investigated the effects of HCQ adherence on clinical manifestations, disease activity, and organ damage in Korean patients with SLE.

Methods: Data on 299 SLE patients were obtained from the Korean Lupus Network registry. Demographic variables, clinical manifestations, laboratory findings, PGA, and SLEDAI-2000 and SLICC damage index scores were recorded at the time of enrollment and repeated annually for 4 consecutive years. Patients were divided into two groups according to the level of HCQ adherence. Adherence was defined by the medication possession ratio and dichotomized as $\leq 80\%$ vs. $> 80\%$. Univariate and multivariate analyses were performed to assess the impact of adherence to HCQ on clinical outcomes.

Results: Of the 299 patients, 31 (10.4%) showed poor drug adherence during the follow-up period. Patients with poor HCQ adherence were older ($P=0.011$), less insured ($P=0.024$), experienced lower employment ($P=0.033$), and had a higher rate of comorbidities such as hypertension ($P=0.048$) and depression ($P<0.001$). The non-adherent group had higher mean and changed SLICC damage index scores than the adherent group across all 4 years. In the multivariate analysis, HCQ non-adherence was significantly associated with older age (OR, 1.043; 95% CI, 1.006–1.081; $P=0.021$), depression (OR, 11.98; 95% CI, 1.099–130.6; $P=0.042$), and an annual increase in the SLICC damage index score (OR, 2.275; 95% CI, 1.369–3.779; $P=0.002$).

Conclusion: HCQ adherence might be influenced by age and depressive mood. Additionally, the poor adherence to HCQ in SLE patients was correlated with higher cumulative organ damage. Therefore, patients with SLE should be educated to take HCQ appropriately to improve their clinical outcome in clinical practice.

Disclosure of Interests: None declared

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SAT0180

ANTIMALARIAL DRUGS ASSOCIATED RETINOPATHY IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: The antimalarials remain to be the main treatment for Systemic Lupus Erythematosus (SLE). Its most important limitation when you want to increase dose or remain using them is the occurrence of retinal toxicity, which appears in a small number of patients. Since the lesions can progress even with drug withdrawal is important to perform a screening for an early diagnosis.

Objectives: To describe ocular toxicity in patients with SLE treated with antimalarials that attended the rheumatology office and to identify possible associated risk factors.

Methods: We performed a cross-sectional, retrospective study of SLE patients diagnosed of antimalarial drugs associated retinopathy, that were included in the data base of the Rheumatology department in León's Hospital between 2014-2019. Multiple clinical and therapeutic factors potentially associated with retinal toxicity were analyzed including: age, chronic kidney disease (CKD), liver failure, smoking, hypertension, Diabetes mellitus, presence of previous retinopathy, type of treatment, duration, daily dose and cumulative dose and tamoxifen intake. The diagnosis of retinopathy was performed by the Ophthalmology department. The dose of hydroxychloroquine (HCQ) used was of 400mg/day and chloroquine (CQ) 250mg/day.

Results: 437 medical records were analyzed, 20 patients diagnosed of antimalarial retinopathy were included (4.57%), 90% of them were women. The age of

diagnosis was more than 40 years in 18 patients (90%) and more than 60 years in 10 (50%) with a median of 60 years (IQR: 32,25).

The duration of treatment was ≤ 5 years in 10 patients (50%), between 6-10 years in 6 (30%), between 11-15 years in 2(10%) and between 16-20 years in 2 (10%) with a median of exposure of 5,5 years (IQR: 6,5); 15 patients (75%) were in treatment with HCQ, with CQ 2 patients (10%) and with both of them sequentially 3 patients (15%).

Of the group of patients treated with HCQ 35 % were above the global accumulated recommended dose (1000g) and 71% of them were on treatment more than 10 years. In the group treated with CQ none were above the global recommended dose (460g). Of the 3 patients that took both drugs, two were above the recommended dose for HCQ.

25% of the patients had CKD and 10% liver failure, 20% of the patients were active smokers and 15% ex-smokers.

10% of the sample had previous retinopathy related with other comorbidities (age related retinopathy and diabetes), associating hypertension and diabetes mellitus in the same percentage (15%).

Severe retinopathy was found in 1 patient (5%), mild-moderate in 9 patients (45%), retinopathy stages were not specified in 10 patients (50%).

Conclusion: In our sample we observed a prevalence of antimalarials retinopathy of 4.57%, similar of what is found in the literature. Half of the patients had retinopathy in a period of treatment ≤ 5 years, being a described risk factor the duration of treatment of more than 6 years. This early manifestation could be related to the presence of other comorbidities like hypertension, diabetes and CKD.

Dose readjustment should be considered in patients with a period of treatment of more than 10 years. Age seems to be an associated factor for the development of antimalarials retinopathy and to perform a screening in the first year of treatment is important to rule out basal disease related with more risk to develop ocular toxicity.

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SAT0181

ALTERATIONS OF PERIPHERAL LYMPHOCYTE SUBSETS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS AND THEIR CHANGES AFTER OUR NEW IMMUNOREGULATORY COMBINATION THERAPIES

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Background: Systemic lupus erythematosus (SLE) is a multisystem autoimmune disease characterized by abnormal activation of circulating lymphocytes and overproduction of autoantibodies¹. Breakdown of self-tolerance is considered as a critical cause in the development of SLE². However, the quantitative changes of lymphocyte subsets in SLE are unclear. Since low-dose IL-2 and several drugs have been used to promote the proliferation of regulatory T cells (Tregs)³, we developed immunoregulatory therapies using these drugs to rebalance effector T cells with Tregs and test whether they are benefit to remission disease activity of SLE.

Objectives: To observe the different levels of peripheral lymphocyte subsets at the first laboratory examination of SLE patients with those of healthy controls (HCs) and to evaluate the effect of immunoregulatory combination therapies on levels of lymphocyte subsets in patients with SLE.

Methods: From September 2014 to December 2019, a total of 985 diagnosed patients with SLE (878 females, 107 males, mean age 42.99 ± 13.37 years) and 206 healthy adults were enrolled in this retrospective cross-sectional study. And 795 patients with SLE (711 females and 84 males, mean age 38.26 ± 15.242 years) were received the immunomodulatory drugs (IMiDs) such as low-dose interleukin-2, rapamycin, metformin, retinoic acid, coenzymes Q10 or other immunomodulatory treatments. The absolute numbers of T, B, NK, CD4⁺T, CD8⁺T, Th1, Th2, Th17 and CD4⁺CD25⁺Foxp3⁺T regulatory cells (Tregs) in peripheral blood (PB) of these individuals were measured by Flow Cytometer (FCM) combined with standard absolute counting beads.