and nonthrombotic manifestations. The key the success is multidisciplinary approach in all time of patient's life. Antiphospholipid syndrome is really a disease with protean faces.

REFERENCES:

- [1] Hughes GR. The antiphospholipid syndrome: ten years on. *Lancet* 1993; 342:341–4.
- [2] Ardalan MR, Vahedi A. Antiphospholipid syndrome: A disease of protean face. *J Nephropathology* 2013; 2(1):81–4.
- [3] Stojanovich L, Markovic O, Marisavljevic D, et al. Influence of antiphospholipid antibody levels and type on thrombotic manifestations: results from the Serbian National cohort study. *Lupus* 2011; 0: 1–8.
- [4] Stojanovich L, Kontic M, Djokovic A, et al. Association between systemic non-criteria APS manifestations and antibody type and level: results from the Serbian national cohort study. *Clin Exp Rheumatol*. 2013; 31(2):234–42.

Acknowledgements: Acknowledgement: Funding: This work was supported by research grant number 175041, and TR 32040 for 2011–2018, issued by the Ministry of Science of the Republic of Serbia.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.1915

AB0596

THE IMMUNE COMPLEXES OF IGG/IGM BOUND TO B-2-GLYCOPROTEIN I ARE ASSOCIATED WITH LIVEDO RETICULARIS, THROMBOCYTOPENIA AND SICCA IN APS PATIENTS

D. Pérez¹, L. Stojanovich², L. Naranjo¹, N. Stanisavljevic², G. Bogdanovic², M. Serrano¹, A. Serrano¹. ¹Immunology, Hospital Universitario 12 de Octubre, Madrid, Spain; ²Internal medicine, Bezanjska Kosa, University Medical Center, Belgrado, Serbia

Background: Several manifestations strongly associated with APS have been excluded as classification criteria.^{1,2}

Objectives: The aim of this study was to investigate correlation between circulating immune-complexes of IgG or IgM antibodies bound to B2GPI (B2G-CIC and B2M-CIC) and clinical manifestations in Serbian cohort of APS patients.

Methods: A total of 57 patients with APS were evaluated: 35 with PAPS and 22 patients with SAPS. Mean age was 47.6±1.6 years; 36 (63.2%) were women. All patients have met the 2006 revised Sydney criteria for APS. Quantification of B2G-CIC and B2M-CIC levels was performed as previously, for detect B2G-CIC was used anti-human IgG HRP-conjugate and for B2M-CIC human IgM HRP-conjugate, both from INOVA (INOVA Diagnostics Inc., San Diego, CA, USA).

Results: In our cohort Serbian APS patients the prevalence of CIC was 19.29% (11/57); 8 patients with B2M-CIC and the remain 3 patients with B2G-CIC. Livedo reticularis was diagnosed with higher prevalence in patients with CIC compared with patients without CIC; 63.6% and 23.9%, respectively (OR: 5.57, p=0.01). In patients with CIC, thrombocytopenia and leukopenia were more prominent; 54.4% vs 17.4% (OR: 5.70, p=0.01) and 45.5% vs 13.0% (OR: 5.56, p=0.01), respectively. Ophthalmic sicca was more prevalent in patients with CIC; 54.4% vs 8.7% (OR: 12.6, p<0.001). Although complement consumption was more frequent in patients with CIC (figure 1).

Figure 1. Mean levels of C3 (A) and C4 (B) complement in groups. Mean levels of C3 (115.6±9.2 mg/dL and 140.9±4.3 mg/dL, group-1 and group-2 respectively) and mean levels of C4 (140.9±4.3 mg/dL and 30.8±1.6 mg/dL, group-1 and group-2, respectively).

Conclusions: B2G-CIC and B2M-CIC are strongly associated with clinical manifestations related to APS. Widening the APS spectrum is indispensable to better understand this syndrome.

REFERENCES:

- [1] Stojanovich L, Kontic M, Djokovic A, Marisavljevic D, Ilijevski N, Stanisavljevic N, et al. Association between systemic non-criteria APS manifestations and antibody type and level: results from the Serbian national cohort study. *Clin Exp Rheumatol*. 2013 Mar-Apr;31(2):234–42.
- [2] Stojanovich L, Markovic O, Marisavljevic D, Elezovic I, Ilijevski N, Stanisavljevic N. Influence of antiphospholipid antibody levels and type on thrombotic manifestations: results from the Serbian National Cohort Study. *Lupus*. 2012 Mar;21(3):338–45.

Acknowledgements: This work was supported by research grant number 175041, and TR 32040 for 2011–2018, issued by the Ministry of Science of the Republic of Serbia.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.2479

AB0597

CHANGES IN THE THYROID HORMONES IN PATIENTS WITH SJOGREN'S SYNDROME IN DOMINICAN REPUBLIC

M. Marte-Robles, R. Jimenez-Candelaria, I. Mercedes-Núñez, E. Tejada-Reyes, R. Muñoz-Louis, V. Rosario, R. Peña-Blanco, T. Valdez-Lorie, R. Alba-Férez. *Rheumatology, Hospital Docente Padre Billini, Santo Domingo, Dominican Republic*

Background: Sjogren's syndrome (SS) is an autoimmune chronic where there is a B-cell activation and lymphocytic infiltration of exocrine glands, this can be primary or secondary and characterised by xerostomia, xerophthalmia and extraglandular manifestations¹. Thyroid involvement is frequent in patients with SS sharing histological and antigenic characteristics². 10–24% of patients with SS have thyroid involvement, the most common are Hashimoto's thyroiditis or Grave's disease are the most frequent autoimmune syndromes. Some reports indicated that Hashimoto's Thyroiditis and Grave's disease has an incidence of 4.2% and 3.4% in the patients with SS respectively. A study showed that in patients with SS 45% had changes in the values of thyroid hormones and 24% autoimmune thyroiditis.³⁻⁵

Objectives: Determine the changes in the thyroid hormones in patients with Sjogren's syndrome.

Methods: A cross-sectional study. The information was collected from the digital records of Hospital Docente Padre Billini Rheumatology department during the period October 2017-January 2018. Inclusion criteria: age ≥18 years old, patients with Sjogren's syndrome according to ACR/EULAR 2016 criteria. Excluded patients who did not thyroid test during the study and patients who have a thyroid disorder under treatment. The data was analysed using SPSS V23 Windows 10.

Results: 79 cases were reviewed, of which 51 met the inclusion criteria. 98% were women, average age of 45 years, 9.8% had hypothyroidism and 3.9% hyperthyroidism by laboratory tests. 82.3% were euthyroid. 82.3% had anti Ro and anti La, 96% Schirmer test + and 37.2% positive biopsy report for SS.

Conclusions: In our study, we found that 9.8% of patients with Sjogren's syndrome could be associated with subclinical hypothyroidism and 3.9% with hyperthyroidism what can mask the clinical manifestations at the time of diagnosis. The screening in high-risk patients such as patients with autoimmune disorders remains important.

REFERENCES:

- [1] Shiboski CH, Shiboski SC, Seror R, et al. 2016 American College of Rheumatology/European League against Rheumatism Classification Criteria for Primary Sjögren's Syndrome: a consensus and data-driven methodology involving three international Patient cohorts. *Arthritis Rheumatol* 2017; 69:35–45.
- [2] José Rosa Gómez, José Miguel Senabre Gallego, et al. Management of extra glandular manifestations of Sjogren's syndrome. *Clinical Rheumatology*. 2010; 6 (s2): 6–11
- [3] Barragán-Garfias JA, et al. Enfermedades tiroideas autoinmunes y del tejido conectivo. *Rev. Med Inst Mex Seguro Soc*. 2013; 51(2):e1–5
- [4] Tsuboi H, Asashima H, Takai C, et al. Primary and secondary surveys on Epidemiology of Sjögren's syndrome in Japan. *Mod Rheumatol* 2014; 24:464–70
- [5] Sumie Moriyama, Reo Yoshikawa, et al. Clinical, Endocrinological and Immunological Characteristics of Japanese Patients with Autoimmune Polyglandular Syndrome Type 3a. *J Endocrinol Metab*. 2016; 6(2):46–51

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.5514

AB0598

SIGNIFICANCE OF NON CRITERIA ANTI-PHOSPHOLIPID ANTIBODIES IN THE PATIENTS WITH SYSTÉMIE LUPUS ERYTHEMATOSUS ASSOCIATED WITH ANTIPHOSPHOLIPID SYNDROME

M. Dryglewska¹, A. Majdan², M. Majdan¹. ¹Department of Rheumatology and Connective Tissue Diseases; ²Chair of Oncology, Medical University, Lublin, Poland

Background: Systemic Lupus Erythematosus (SLE) is a chronic inflammatory autoimmune disease in which the uncontrolled activation of the immune system leads to overproduction of autoantibodies (Ab) with different mechanisms of action. Coexistence of anti-phospholipid antibodies (aPL) significantly increases the risk of thromboembolic complications and worsens the clinical course and prognosis of SLE.

Objectives: The aim of study was to determine the relationship between the presence of non-criteria aPLs in SLE patients with criteria and non-criteria clinical symptoms of APS.

Methods: The study involved 70 (52-female and 18-male) patients treated in the Department of Rheumatology and Connective Tissue Diseases. All patients fulfilled the SLICC classification criteria of SLE. 46/70 pts fulfilled clinical and laboratory criteria of Antiphospholipid Syndrome (I group SLE/APS-46pts) and 24/70 pts (II group SLE/aPL (+) -24) -they had criteria antibodies but did not display clinical criteria symptoms of APS. In the whole study group the mean age was: 38.5 ± 12.9 years (range 18–71), the duration of the disease was 8.3 ± 6.5 years (range 0–37). The presence of Ab was detected in patients' serum using the commercially available tests: aPL-immunodot assay Anti-Phospholipid 10 Dot, for the qualitative detection of IgG or IgM antibodies. Statistical data analysis was performed using Statistica v13.0.

Results: In the study group of 70 patients we detected the presence of the following aPLs: a- cardiolipin IgM –33,7%, IgG –50%; a-phosphatidic acid IgM –17,5%, IgG –11,2%; a-phosphatidylcholine IgM and IgG –0; a-phosphatidylethanolamine IgM and IgG –0; a-phosphatidylglycerol IgM –4,4%, IgG –10%; a-phosphatidylinositol IgM-11,2%, IgG-10%; a-phosphatidylserine IgM-31,2%, IgG-48,7%; a-annexin V IgM –20%, IgG –10%; a-b2-GP I IgM-33,7%, IgG-30%; a-prothrombin IgM –51,4%, IgG-30%.

The following non-criteria clinical symptoms of APS were present: nephropathy in 27,1%, hypertension-41,1%, livedo reticularis 11,4%, convulsions/chorea-5,7%, thrombocytopenia- 20% of the study group.

No statistically significant differences in the frequency of occurrence of individual non-criteria aPLs, as well as non-criteria clinical symptoms of APS have been found in the examined subgroups of SLE/SAPS and SLE/aPL (+) patients.

Conclusions: The prevalence of non-criteria aPLs in SLE and APS pts is similar to pts with SLE with criteria- aPL. Non-criteria clinical symptoms of APS occurred with the same frequency in pts with SLE and APS and in SLE with criteria aPL.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.7366

AB0599 RELATION BETWEEN THE DEFICIT/DEFICIENCY OF VITAMIN D AND THE DEPRESSION/ANXIETY IN PATIENTS WITH LUPUS IN THE DEPARTMENT OF RHEUMATOLOGY OF THE HOSPITAL OF CLINICS

M.A. Vazquez¹, N. Ortiz¹, V. Martínez¹, L. Roman¹, K. Bauman¹, M. Melo¹, E. Acosta², M. Duarte¹, I. Acosta Colman¹. ¹Central, Hospital de Clínicas San Lorenzo; ²Central, Instituto de Investigación en Ciencias de la Salud San Lorenzo, Asunción, Paraguay

Background: It has been postulated that low concentrations of 25-hydroxvitamin D serum [25 (OH) D] is associated with a greater prevalence of depression. People with deficient levels of vitamin D are more likely to experience mood disorders such as depression and anxiety. The vitamin D plays a role in the release of neurotransmitters such as serotonin and dopamine which is why is interesting the study of this in patients with systemic lupus erythematosus, who are discouraged from sun exposure.

Objectives: Determine the association between the deficit/insufficiency of vitamin D and the anxiety/depression in patients with SLE of the Department of Rheumatology of the Hospital de Clínicas

Methods: Observational study of longitudinal court based in a questionnaire according to the scale HADS (*Hospital anxiety and Depression Scale*) and the dosages of vitamin D performed on patients who entered the LUPUS PY cohort with prior informed consent. The dosage of vitamin D realised by chemiluminescence. Data and samples were taken in week 0 and week 24 and the prevalence of depression and anxiety and its association with vitamin D deficiency and insufficiency were identified. Patients with vitamin D deficiency or insufficiency were supplemented with vitamin D. For the descriptive analysis of the quantitative variables, average and SD were used, for the qualitative frequencies and percentages. For the analysis of association the test χ^2 was used. The value of the p considered statistically significant was less than 0,05.

Results: In relation to the characteristics of the studied cohort, we can see that 90.5% were female, with an average age of 33 ± 10.2 years. At week 0 the average value of vitamin D concentration was 31.8 ± 10.2 ng/ml. It is found that 4,48% of patients had depression and 33,69% of patients have anxiety. In the week 24 the value of the average of vitamin D was of $31,1 \pm 13,6$ ng/ml. It was observed in this week that 6% of patients presented depression and 12% of patients anxiety. In the analysis of association there was no association between vitamin D deficits and the presence of depression or anxiety of these patients both at the week 0 as a week 24 post vitamin D supplementation such, and as seen in table 1.

Abstract AB0599 – Table 1. Deficit and insufficiency of vitamin D associated with the depression and anxiety in patients with SLE.

	Deficit/insufficiency of Vit D	Depression	P value
Week 0	35(47,29%)	3 (4,48%)	0,287
Week 24	33(44,59%)	4 (6%)	0,092
	Deficit/insufficiency of Vit D	Anxiety	P value
Week 0	35(47,29%)	14 (33,69%)	0,287
Week 24	33(44,59%)	8(12%)	0,092

Conclusions: A significant percentage of patients with deficient or insufficient vitamin D were found, as well as a considerable percentage had depression or anxiety, although no association was found between the state of this vitamin and the alterations of the studied mood. More studies are required that include more patients in order to obtain more conclusive results.

REFERENCE:

- [1] Okereke, Olivia I., Ankura Singh. "The Role of Vitamin D in the Prevention of Late-Life Depression." *Journal of affective disorders* 198 (2016): 1–14. *PMC*. Web. 30 Jan. 2018.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.5953

AB0600 RELEVANCE OF OPHTHALMOSCOPIC EVALUATION IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS: UNDERESTIMATION OF INTRAOCULAR PRESSURE VALUES

M.C.D.F. Salgado¹, A.D.C. M. Paiva¹, Y.D.F. B. Chagas¹, J.L.P. Vaz¹, F.C. Freire¹, L.M. Arêas², F.C. Freire¹, V. Vigneron¹, Y.D.F. B. Chagas¹, J.L.P. Vaz¹, A. Vaz¹, V. Vigneron¹. ¹General Medicine; ²ophthalmology, Federal University of Rio de Janeiro State, Rio De Janeiro, Brazil

Background: The evaluation of the size of the optic nerve papilla in ophthalmoscopy is an important tool for the diagnosis of glaucoma in individuals who do not present elevated intraocular pressure (IOP) levels. The calibration of the IOP is performed through Goldmann's tonometry, which consists of flattening the central cornea with a tonometer. Patients with Systemic Lupus Erythematosus (SLE) have circulating autoantibodies and immunocomplexes that alter corneal biomechanics, resulting in underestimated IOP values.

Objectives: To evaluate the IOP values and the presence of increased excavation in patients with SLE, reinforcing the importance of ophthalmoscopy in this population.

Methods: Descriptive study. Analysis of IOP measurement and papillary excavation of 50 SLE patients.

Results: All patients had IOP values within the normal range (8–21 mmHg). In a total of 100 eyes evaluated, four (4%) had increased papillary excavation.

Conclusions: Type I collagen is essential for the maintenance of biomechanical parameters and resistance of the cornea. At the corneal level, the activation of the complement system results in the lysis of type I collagen fibres, reducing corneal thickness and resistance. Therefore, IOP values for tonometry will be reduced and underestimated. Comparing the IOP values of SLE patients and healthy volunteers, there are lower results ($p < 0.001$) in lupus patients. In the present study, no patient had IOP changes. However, 4% of the eyes revealed increased excavation. These findings reflect the results of Yazici et al, and reinforce the importance of ophthalmoscopy in the screening of glaucoma in SLE patients.

REFERENCES:

- [1] Silpa-archa S, Lee J, Foster CSI. Ocular manifestations in systemic lupus erythematosus. *Br J Ophthalmol*. 2016;100:135–41.
- [2] Moreira CA, Alves MR. *Semiologia Básica em Oftalmologia*. 3. ed. Rio de Janeiro: Cultura Médica: Guanabara Koogan; 2013.
- [3] Yazici AT, Kara N, Yüksel K, Altinkaynak H, Baz O, Bozkurt E, et al. The biomechanical properties of the cornea in patients with systemic lupus erythematosus. *Eye*. 2011;25:1005–9.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.7018