

Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2018-eular.6269

AB0567 **CLINICAL SIGNIFICANCE OF THE DETECTION OF HLA-DRB1 ALLELES IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS**

E. Belolipetskaia¹, I. Beliaeva¹, V. Mazurov¹, S. Lapin², O. Tkachenko², V. Guseva², O. Inamova³. ¹North-Western State Medical University named after I. Mechnikov, ²St. Petersburg State Medical University named after I.P. Pavlov, ³Clinical Rheumatological Hospital № 25, Saint-Petersburg, Russian Federation

Background: Associations between clinical manifestations of systemic lupus erythematosus (SLE), presence of antiphospholipid antibodies (aPL) and HLA-DRB1 alleles have been established, these associations however need clarification.

Objectives: Clarify the associations between clinical features of APS in patients with SLE and the presence of aPL and the HLA-DRB1 alleles.

Methods: 79 SLE patients were enrolled in the study (M/F 7/72; mean age 11.0 years, range (18,0;78,0). The main group consisted of 41 aPL carriers (28 of them with antiphospholipid syndrome (APS), a comparison group consisted of 38 aPL-negative SLE patients. The groups were comparable in age, duration and SLE activity.

ELISA was used to test for aPL. Lupus anticoagulant (LA) was evaluated using the DRVV test method. The HLA-DRB1 alleles were identified using HLA-typing.

Results: While comparing both groups, HLA-DRB1*03 allele was found significantly less frequently in aPL-carriers group ($p=0.04$). In APS group HLA-DRB1*08 allele was present significantly more often ($p=0.002$), both HLA-DRB1*03 and *15 alleles were found significantly less often ($p=0.008$) in comparison with the aPL-negative group.

SLE patients with HLA-DRB1*16 allele were more likely to develop an early pregnancy loss (OR=19, $p=0.04$), patient with HLA-DRB1*11 allele – more likely to develop a fetal loss (OR=4.9, $p=0.04$) in comparison with other alleles; in patients with HLA-DRB1*01 allele both early pregnancy loss and fetal loss occurred less often (OR=0.18, $p=0.04$; OR=0.29, $p=0.04$) compared with other alleles. The highest level of anti-double-stranded DNA was found in patients with HLA-DRB1*13 allele (Me=54, [17.0, 290.0 IU/ml], $p=0.005$), and lowest level – in patients with HLA-DRB1*04 (Me=0.15, [0.0; 14.2 IU/ml], $p=0.005$).

In the group of aPL carriers significant correlations between the HLA-DRB1*08 allele and elevated level of anticardiolipin antibodies (aCL) IgM ($r=-0.42$, $p=0.005$) and anti-annexin V antibodies IgG ($r=0.3$, $p=0.01$), between HLA-DRB1*04 allele and elevated level of aCL IgG ($r=0.31$, $p=0.008$), between the HLA-DRB1*12 allele and an elevated level of anti-annexin V antibodies IgM ($r=0.31$, $p=0.01$) were found.

Correlations between HLA-DRB1*16 allele and early pregnancy loss ($r=0.37$, $p<0.001$), between HLA-DRB1*11 allele and fetal loss ($r=0.30$, $p<0.001$) were observed.

Conclusions:

1. HLA-DRB1*08 allele is a risk factor for the development of APS in SLE patients.
2. HLA-DRB1*03 and *15 alleles were more often detected in aPL-negative SLE patients.
3. The presence of HLA-DRB1*16 and *11 alleles in SLE patients is a risk factor for the development of obstetric complications.
4. In the group of aPL carriers significant correlations between HLA-DRB1 alleles and elevated levels of aPL were found.
5. SLE patients with HLA-DRB1*01 were less likely to develop any obstetric complications.

Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2018-eular.4737

AB0568 **KNOW YOUR VACCINES – A CLINICAL AUDIT ON THE UPTAKE OF VACCINATIONS IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS**

E.E. Varughese, M. McCartney, K. Sunmboye, S. Shaffu. *Rheumatology, University of Leicester- Leicester Royal Infirmary, Leicester, UK*

Background: Systemic Lupus erythematosus (SLE) is a multi-system autoimmune disease with an increased mortality and morbidity rate compared to the controlled population. One of the commonest causes of mortality and morbidity in SLE is infection. This is a result of not only the immunosuppressive effect of the disease process itself but also treatment involving disease modifying anti-rheumatic drugs (DMARDs). In fact, corticosteroids and immunosuppressants increase the risk of opportunistic infection, in addition to the more common pathogens.

Vaccines provide long lasting protective immunity against microbial pathogens and prevent clinically relevant infections. Recommended vaccinations in SLE patients include H. Influenza, Pneumococcal, Hepatitis A and B, and Human Papilloma Virus (HPV). Influenza vaccines are given annually and a Pneumococcal booster dose is given at 5 years following the initial vaccine.

Objectives: To assess whether, in routine clinical practise, patients with SLE are immunised against preventable disease according to EULAR recommendations and to assess the level of patient awareness.

Methods: A questionnaire was designed to assess the degree of compliance with current recommendations adapted from the EULAR-recommended vaccinations in patients with autoimmune inflammatory rheumatic diseases on DMARD therapy. The questionnaire enquired into the awareness and uptake of the influenza B, pneumococcal and hepatitis B vaccines. They were sent out by postal mail, with an enclosed stamped address envelope, to all SLE patients within the university hospitals of Leicester (UHL) NHS trust identified via the rheumatology patient database. Questions included awareness of the need to have vaccinations whilst on DMARDs. The audit was conducted over a three month period and the results were compiled in Microsoft excel.

Results: Of the 396 SLE patients within UHL, 86 responded. Among the patients studied 38% were on DMARD therapy, an equal proportion claimed they were not and 23% were unclear if they were on DMARD therapy. Approximately 60% were unaware of the need for vaccinations and only 27.9% acknowledged awareness for the need of the 3 vaccines mentioned above. Fifty-six (60%) patients had the influenza vaccine yet only 26 (28%) and 15 (21.8%) had the Pneumococcal and Hepatitis vaccines respectively.

Conclusions: The increased infection rate in SLE can be reduced through vaccination. This highlights the importance of increasing both physician and patient awareness. Although the sample size was small, the above audit has revealed that current local practice, with regards to ensuring that all SLE patients are appropriately vaccinated, requires improvement. This can be achieved through patient and healthcare worker education, and also creating a checklist that can be added to the clinic notes. Working together with our primary care colleagues will also help bridge the divide between compliance and non-compliance. Such measures will aim to improve mortality and morbidity in SLE patients.

REFERENCES:

- [1] www.lupusuk.org.uk/bsr-guidelines/
- [2] www.rheumatology.org.uk/Knowledge/Excellence/Guidelines
- [3] www.hss.edu/conditions_vaccinations-lupus-update.asp
- [4] http://ard.bmj.com/content/75/suppl_2/771.2
- [5] <http://ard.bmj.com/content/annrheumdis/70/3/414.full.pdf>

Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2018-eular.7536

AB0569 **RELATIONSHIP BETWEEN THE LEVELS OF VITAMIN D AND THE ACTIVITY IN SYSTEMIC LUPUS ERYTHEMATOSUS IN DOMINICAN REPUBLIC**

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

Background: 25 (OH) D is a steroid prohormone that participates in calcium homeostasis and bone health.¹ Nonclassical functions of this vitamin have been described in a variety of cells of the innate and adaptive immune system. Currently, the immunomodulatory role of 25 (OH) D in Systemic Lupus Erythematosus (SLE) continues in debate. In addition, a correlation between non-optimal levels of 25 (OH) D and disease activity has been observed.² In the SLE, there is a high prevalence of non-optimal levels of vitamin D. A prevalence of 25 (OH) D insufficiency of 15% to 75% is reported.³

Objectives: To determine the relationship between vitamin D levels and disease activity in SLE.

Methods: It is a prospective, cross-sectional study, in all patients who attended the rheumatology clinic of the Hospital Docente Padre Billini in the period August – October 2017, where the levels of vitamin D and activity of the disease were measured with SELENA-SLEDAI (≤ 3 without activity, 3–12 moderate activity, ≥ 12 high activity). Vitamin D deficiency is defined as serum levels of 25 (OH) D <10 ng/ml, insufficiency levels serum levels of 25 (OH) D of <30 ng/ml.³ Inclusion criteria: all patients with at least 18 years of age who met the SLE SLICC 2012 classification criteria were included with determination of vitamin D and calcium.

Results: 45 patients who met criteria SLE SLICC 2012 were included. 97.7% (44) were women. The most frequent age range was 31–45 years. 24.4% (11) had decreased calcium values. The vitamin D values were insufficient in 77.7% (35) of the patients and deficient in 4.4% (2) According to SELENA-SLEDAI, 77.7% (35) had no activity of the disease, 20% (9) had moderate activity and 2.2% (1) had