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Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.3443

THU0368

ARE ANTI-PHOSPHATIDYLSERINE PROTHROMBIN ANTIBODIES A USEFUL SCREENING TOOL FOR THE LUPUS ANTICOAGULANT?

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Background: Anti-phosphatidylserine prothrombin antibodies (PSPT) have been reported to be strongly associated with the lupus anticoagulant (LAC) in established antiphospholipid syndrome (APS) and autoimmune cohorts. However, there is a paucity of similar studies assessing clinical utility on an all-comer patient population undergoing evaluation for suspicions of APS.

Objectives: To determine the sensitivity and specificity of IgG and IgM PSPT to the LAC in patients undergoing evaluation for APS.

Methods: Patients from June 2017 to December 2017 undergoing evaluation for APS had blood draws for the LAC, anti-cardiolipin (aCL), anti-β2 glycoprotein-1 (β2GP1), and PSPT. Both IgG and IgM isotypes were tested for each antibody. Presence of the LAC was determined by trained haematologists interpreting a number of mixing and neutralisation studies. Demographic details were abstracted from the medical record and cases meeting the SLICC criteria for systemic lupus erythematosus (SLE) and the revised Sapporo criteria for APS were enumerated.

Results: Fifty six eligible patients were identified. Mean age was 50±18 years. 68% were female, 20% with SLE, and 20% with APS. At time of testing, 18% were on warfarin, 7% on direct factor Xa inhibitors and 2% on low-molecular weight heparin. The LAC was negative in 45% (25/56) of those tested. In LAC negative cases, the IgG and IgM PSPT were negative in 100% and 92% of cases, respectively. In LAC positive cases, IgG PSPT was positive in 35% and IgM PSPT was positive in 61%. Compared to the LAC, IgG PSPT was 100% (95% CI: 72%, 100%) sensitive but was only 56% (40%, 70%) specific. Similarly, the IgM isotype of PSPT showed 90% (70%, 99%) sensitivity but only 66% (48%, 81%) specificity. Overall, 38% (21/56) of the cases possessed an isolated, singly positive LAC with concurrent negative IgG/M aCL and β2GP1 antibodies. In this isolated LAC positive-only group, further testing with IgG and IgM PSPT was positive in 38% and 57% of the cases, respectively.

Conclusions: In this study, IgG and IgM PSPT were found to be highly sensitive to the LAC and may be a useful tool in the screening of and the interpretation of the LAC.

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Acknowledgements: Special thanks to Susan Hartzler, Cory Blixt, Serena Navitskas, and Diane Meier.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.5013

THU0369

CREATION OF A WEIGHTED SLICC SLE CLASSIFICATION CRITERIA AND COMPARISON WITH PROPOSED EULAR/ACR SLE CLASSIFICATION CRITERIA

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Background: In previous validation work, the SLICC 2012 SLE classification criteria were more sensitive than the revised ACR-11 criteria, while both criteria had similar agreement with physician diagnoses. Both of these classification rules count each SLE manifestation equally.

Objectives: Our objective was to derive and test a classification rule which differentially weights the variable used in the SLICC classification rule. We also compared this rule to a recently proposed EULAR/ACR classification rule that also uses a weighted approach.

Methods: The physician-rated patient scenarios used to develop the 2012 SLICC classification criteria were re-employed to devise a weighted classification rule. A multiple linear regression model was constructed with the 2012 SLICC criteria variables as predictors and the binary outcome (physician classification of SLE) as the outcome. To generate the weights for each criteria, we then multiplied each criteria's coefficient by 100 and rounded to the nearest integer. The 'Direct Coombs' criteria (coefficient <1) was deleted for simplicity. The weights for the remaining manifestations were: acute cutaneous, 26 chronic cutaneous, 12 oral ulcers, 16 arthritis, 9 serositis, 16 renal without biopsy, 9 neurologic, 9 hemolytic anaemia, 16 leukopenia or lymphopenia, 14 thrombocytopenia, 15 alopecia, 11 ANA, 11 anti-dsDNA, 19 anti-Sm, 16 antiphospholipid antibodies, 9 low complement. 11 A cutoff for classification was chosen as the score that maximised overall agreement (i.e., the sum of sensitivity and specificity) of the new weighted criteria with physician diagnosis. Patients with lupus nephritis or the new weighted classification rule of 56 or more with at least one clinical component and one immunologic component were classified as SLE. We evaluated the performance of this revised SLICC criteria, on an independent set of patient scenarios, and compared this to the performance of the older revised ACR criteria, the previous ^{SLICC 2012} criteria, and the newly proposed EULAR/ACR criteria.

Results: Table 1 shows the performance of the four classification rules. There was no statistically significant difference (at the 0.05-level) between any pair of rules with respect to overall agreement with the physician diagnosis.

Abstract THU0369 – Table 1. Sensitivity and specificity of four different SLE classification rules based on physician diagnoses of patient scenarios

Classification Rule	Sensitivity (n=349)	Specificity (n=341)	Overall Agreement (n=690)
Revised ACR-11	290 (83%)	326 (96%)	616 (89%)
SLICC 2012	340 (97%)	288 (84%)	628 (91%)
Proposed EULAR/ACR	317 (89%)	302 (90%)	619 (90%)
Weighted SLICC 2012 criteria	310 (88%)	304 (89%)	614 (89%)

Conclusions: The two newly derived weighted classification rules did not perform better than the existing list-based rules in terms of over-all agreement. Given that the list-based rules are easy to calculate, they may be preferred in most clinical settings.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.1952

THU0370

THE SIGNIFICANCE OF NON-MYDRIATIC FUNDUS EXAMINATION OPERATED BY RHEUMATOLOGISTS IN SCREENING FOR RETINOPATHY OF SYSTEMIC LUPUS ERYTHEMATOSUS (SLE)

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Background: Retinopathy is a common fundus lesion in SLE patients. Non-mydriatic Fundus Camera images directly and objectively and avoids the mydriatic drug-induced glaucoma attack, which can not only reduce the suffering of patients but also save time and costs.

Objectives: To understand the significance of non-mydriatic fundus examination operated by rheumatologists in screening for retinopathy of SLE.