Antibodies to both Ro52 and Ro60 define a renal gallium scan correlated with treatment.

We initially studied 840 patients seen at the Hopkins Sjögren’s Syndrome Center with suspected or established SS. Each had serum tested for antibodies to recombinant Ro52 (Inova Quanta Lite ELISA) and Ro60 by a chemiluminescent assay (Inova Bioflash). Statistical analyses were performed using JMP pro 13. The Chi-square or Fisher exact test was used to compare the groups.

Results: The discovery cohort of 840 patients included 751 (89%) women, with a mean age of 58.5±13.5 years. 371 (44%) patients met the ACR/EULAR classification criteria. There were 311 with anti-Ro52 + Ro60, 108 with anti-Ro52 alone, 95 with anti-Ro60 alone, and 326 with neither antibody. The 311 patients with anti-Ro52+Ro60 reactivity had a distinctive phenotype, with a markedly increased prevalence of ANA≥1:320, RF, IgG3>1650 mg/dL, and SS-B positivity (p<0.008 for all inter-group comparisons) and an increased prevalence of focus score ≥1 and hypoechoic lesions on parotid gland ultrasonography which trended toward statistical significance. These differences were also validated in the second cohort, with the exception of focus score and parotid gland hypoechoic lesions, possibly as a result of smaller group numbers. The Ro52 and Ro60 alone groups were equivalent to each other in their phenotypic associations, except for RF, which was higher in the Ro52 alone group.

Conclusion: Testing anti-Ro52 and anti-Ro60 in patients with suspected or established SS identifies a unique subset, namely those with both Ro52 and Ro60 antibodies, distinguished by a much higher prevalence of B-cell activation markers and glandular inflammation as measured by focus score and hypoechoic lesions. This subset may be most suitable for inclusion in clinical trials where the therapeutic agent targets glandular lymphoproliferation.


SLE, Sjögren’s and APS – clinical aspects (other than treatment)

SAT0172

ANTIBODIES TO BOTH RO52 AND RO60 DEFINE A SUBSET OF SJÖGREN’S MOST SUITABLE FOR CLINICAL TRIALS OF AGENTS TARGETING LYMPHOPROLIFERATIONS

Berkan Armagan1,2, Susan Robinson3, Adriana Bazoberry5, Thomas Grader-Beck6, Alan Baer7, 1Hacettepe University, Faculty of Medicine, Rheumatology, Ankara, Turkey; 2Johns Hopkins University, School of Medicine, Rheumatology, Baltimore, MD, United States of America

Background: Anti-SSA antibodies comprise reactivity to two distinct proteins, Ro52 and Ro60, encoded by separate genes and found on separate ribonucleoprotein particles. Specific testing for Ro52 and Ro60 antibodies is now clinically available, yet the phenotypic correlates of Ro52 and Ro60 reactivity profiles have not been well defined.

Objectives: To determine the phenotypic correlates of antibody reactivity to Ro52 alone, Ro52 + Ro60, and Ro60 alone in patients being evaluated for Sjögren’s syndrome (SS).

Methods: We initially studied 840 patients seen at the Hopkins Sjögren’s Syndrome Center with suspected or established SS. Each had serum tested for antibodies to recombinant Ro52 (Inova Quanta Lite ELISA) and Ro60 (IVTT immunoprecipitation). We then validated our findings in a second cohort consisting of 194 patients, each with testing for antibodies to recombinant anti-Ro52 and anti-Ro60 by a chemiluminescent assay (Inova Bioflash). Statistical analyses were performed using JMP pro 13. The Chi-square or Fisher exact test was used to compare the groups.

Results: The discovery cohort of 840 patients included 751 (89%) women, with a mean age of 58.5±13.5 years. 371 (44%) patients met the ACR/EULAR classification criteria. There were 311 with anti-Ro52 + Ro60, 108 with anti-Ro52 alone, 95 with anti-Ro60 alone, and 326 with neither antibody. The 311 patients with anti-Ro52+Ro60 reactivity had a distinctive phenotype, with a markedly increased prevalence of ANA≥1:320, RF, IgG3>1650 mg/dL, and SS-B positivity (p<0.008 for all inter-group comparisons) and an increased prevalence of focus score ≥1 and hypoechoic lesions on parotid gland ultrasonography which trended toward statistical significance. These differences were also validated in the second cohort, with the exception of focus score and parotid gland hypoechoic lesions, possibly as a result of smaller group numbers. The Ro52 and Ro60 alone groups were equivalent to each other in their phenotypic associations, except for RF, which was higher in the Ro52 alone group.

Conclusion: Testing anti-Ro52 and anti-Ro60 in patients with suspected or established SS identifies a unique subset, namely those with both Ro52 and Ro60 antibodies, distinguished by a much higher prevalence of B-cell activation markers and glandular inflammation as measured by focus score and hypoechoic lesions. This subset may be most suitable for inclusion in clinical trials where the therapeutic agent targets glandular lymphoproliferation.

Disclosure of Interests: Berkan Armagan: None declared, Susan Robinson: None declared, Adriana Bazoberry: None declared, Thomas Grader-Beck: None declared, Alan Baer Consultant for: I have no conflicts of interest within the past 12 months. In 2017, I served on advisory boards for Novartis and AbbVie.


SAT0173

RENAIL GALLIUM SCAN CORRELATED WITH INFLAMMATION IN RENAL HISTOLOGY OF PATIENTS WITH LUPUS NEPHRITIS

Tsz-Yi Hsieh, Yi-Ming Chen, Wei-Ting Hung, Hsin-Hua Chen, Kuo-Lung Lai, Ching-Tsai Lin, Yi-Da Wu, Wen-Nan Huang, Chi-Hui Tseng, Yi-Hsing Chen. Taichung City, Section of Allergy, Immunology and Rheumatology, Department of Internal Medicine, Taichung, Taiwan, Republic of China

Background: Lupus nephritis (LN) is the leading cause of mortality in lupus patients. But there is only one image assessment method, the histopathology through invasive renal biopsy.

Objectives: This study aimed to investigate the clinical value of the non-invasive image assessment method: renal gallium scan, in renal histological parameters of LN in a cohort of one single tertiary referral center.

Methods: Between 2006 and 2018, a hospital-based observational study was conducted to enroll 266 biopsy-proved and 40 repeated-biopsied LN patients who underwent renal gallium scan before biopsy. The classification and scoring of LN were assessed according to the International