Table 1. Correlations between urinary soluble VCAM-1 and other LN biomarkers/disease scores

LN biomarkers/disease scores	VCAM-1
SLEDAI-2k	0.597***
Renal SLEDAI	0.569***
Renal SLAM-R	0.470***
Renal SLICC	0.620***
Anti-dsDNA	0.342**
C3	-0.344**
C4	-0.382**
UPC	0.654***

Spearman's correlation coefficients

*p value <0.05; **p value <0.01; ***p value <0.001

C, complement; LN, lupus nephritis; SLEDAI, Systemic Lupus Erythematosus Disease Activity Index; renal SLAM-R, The renal Systemic Lupus Activity Measure revised; renal SLICC, The Systemic Lupus International Collaborating Clinics renal activity/response exercise; UPC, urine protein-creatinine ratio.

Conclusion: The uVCAM-1 is a reliable biomarker that reflects renal disease activity and is useful for monitoring individual patients with lupus nephritis over time.

Figure 1. Urinary soluble VCAM-1 levels according to lupus nephritis status. Active LN was defined as proteinuria (UPC≥0.5) plus active urinary sediment (hematuria, leukocyturia or cellular hematic/granular casts).

References:

- [1] Mok CC. Biomarkers for lupus nephritis: A critical appraisal. *J Biomed Biotechnol*. 2010;2010:638413.
- [2] Reyes-Thomas J, Blanco I, Putterman C. Urinary Biomarkers in Lupus Nephritis. *Clin Rev Allergy Immunol*. 2010;40:138–50.
- [3] Gasparin AA, Pamplona Bueno de Andrade N, Hax V, Tres GL, Veronese FV, Monticeli OA. Urinary biomarkers for lupus nephritis: the role of the vascular cell adhesion molecule-1. *Lupus*. 2019;28:265–272.

Figure 2. Urinary soluble VCAM-1 levels at different time points relative to a lupus nephritis flare. The levels of uVCAM-1 of seven lupus nephritis patients were evaluated 8 and 4 months before and after a flare, including at the time of the flare itself (time point 0). The number of patients who contributed at each moment was informed. Graph represents median and interquartile range. *p<0.05 compared with level at flare.

Acknowledgments: We acknowledge the Research Incentive Fund (FIPE/HCPA) and the Research Support Fund of Brazilian Society of Rheumatology that supported this work.

Disclosure of Interests: Andrese Aline Gasparin: None declared, Nicole Pamplona Bueno de Andrade: None declared, Vanessa Hax: None declared, Penelope Palominos Grant/research support from: This work was sponsored

by the regional society of rheumatology (Sociedade de Reumatologia do Rio Grande do Sul), Marina Siebert: None declared, Romulo Marx: None declared, Pedro Shaefer: None declared, Francisco Verissimo Veronese: None declared, Odilei Monticeli: None declared

DOI: 10.1136/annrheumdis-2020-eular.199

AB0413

INVESTIGATION OF THE ASSOCIATION OF CARDIOVASCULAR EVENTS AND ANTI-SS-A ANTIBODIES AS RISK OF DEVELOPMENT IN PATIENTS WITH LUPUS NEPHRITIS FROM THE LUNA REGISTRY: A CROSS-SECTIONAL STUDY

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Background: Cardiovascular disease(CVD) has been identified as a major cause of morbidity and mortality in patients with lupus nephritis(LN)^{1,2}. There is a clear causal relationship between the onset of neonatal lupus (cardiac complications) and SS-A antibodies^{3,4}, but no association has been reported in adults. In recent years, there have been reports from overseas that suggest the association between CVD and anti-SS-A antibody in adult systemic lupus erythematosus (SLE) patients^{5,6}. So far, no studies have not been reported to evaluate the relationship between anti-SS-A antibody and the risk of developing CVD in LN in a large cohort of patients with SLE in Japan.

Objectives: The aim of this study was to evaluate the association between anti-SS-A antibody and the risk of developing CVD in LN patients using a multicenter registration study [Lupus registry of nationwide institution (LUNA)] in Japan.

Methods: We identified 931 patients diagnosed with SLE in the Lupus registry of nationwide institution (LUNA), and further identified 275 LN patients with known the presence or absence of both development of CVD and presence of anti-SS-A antibody. We defined the exposure factor as anti-SS-A antibody, and the outcome as CVD. SLENA-SLEDAI score (at diagnosis), eGFR <60%, HbA1c, BMI, and steroid pulse treatment history were used as confounding factors and we analyzed using logistic regression analysis.

Results: We found 68 patients (24.7%) complicated with CVD, including pericarditis (7.3%), cerebrovascular disorder (6.2%), peripheral Arterial Disease (6.2%), Ischemic heart disease (2.9%), venous thromboembolism (2.9%), pulmonary hypertension (1.5%), valvular heart disease (1.1%), and cardiomyopathy (0.4%). In univariate analysis, there was no significant difference in the occurrence of CVD depending on the presence or absence of anti-SS-A antibody (p = 0.32), and the results of multivariate analysis showed no significant difference in anti-SS-A antibody [p = 0.23, odds: 0.41, 95% confidence interval (0.09-1.89)].

Conclusion: The association between anti-SS-A antibody and the development of CVD in LN patients in Japan has not been identified.

References:

- [1] *Lupus*. 2000;9(3):166-9
- [2] *Arthritis Rheum*. 2019 Mar;71(3):403-410,
- [3] *J Intern Med* 265:653-662, 2009
- [4] *Nat Clin Pract Rheumatol* 5:139-148, 2009
- [5] *Ann Rheum Dis* 1990;49:627-629
- [6] *Chest*. 2018 Jan;153(1):143-151. Doi:

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.4047

AB0414

ESSPRI COMPONENTS AND SALIVARY FLOW RATE ARE RELATED TO DAILY ACTIVITY IMPAIRMENT IN PATIENTS WITH PRIMARY SJÖGREN'S SYNDROME

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