

**PS4:71 IGA ANTI-PHOSPHOLIPID ANTIBODIES IN SWEDISH CASES WITH SYSTEMIC LUPUS ERYTHEMATOSUS: ASSOCIATIONS WITH DISEASE PHENOTYPES, VASCULAR EVENTS AND DAMAGE ACCRUAL**

<sup>1</sup>M Frodlund, <sup>2</sup>A Vikerfors, <sup>2</sup>G Grosso, <sup>1</sup>T Skogh, <sup>1</sup>J Wetterö, <sup>3</sup>K Elvin, <sup>2</sup>I Gunnarsson, <sup>1</sup>A Kastbom, <sup>4</sup>Ö Dahlström, <sup>5</sup>J Rönnelid, <sup>2</sup>E Svenungsson, <sup>1</sup>C Sjöwall. <sup>1</sup>Division of Neuro and Inflammation Sciences, Department of Clinical and Experimental Medicine, Linköping University, Linköping, Sweden; <sup>2</sup>Unit of Rheumatology, Department of Medicine Solna, Karolinska University Hospital, Stockholm, Sweden; <sup>3</sup>Unit of Clinical Immunology, Department of Clinical Immunology and Transfusion Medicine, Karolinska Institutet, Stockholm, Sweden; <sup>4</sup>Swedish Institute for Disability Research, Department of Behavioural Sciences and Learning, Linköping University, Linköping, Sweden; <sup>5</sup>Department of Immunology, Genetics and Pathology, Uppsala University, Uppsala, Sweden

10.1136/lupus-2018-abstract.117

**Objectives** IgG- and IgM-class anti-cardiolipin antibodies (aCL) and lupus anticoagulant (LA) are included in the 1997 update of the American College of Rheumatology (ACR-97) systemic lupus erythematosus (SLE) classification criteria. Despite limited evidence, IgA-aCL and IgA anti- $\beta$ 2-glycoprotein-I (anti- $\beta$ 2GPI) were included among the 2012 Systemic Lupus International Collaborating Clinics classification criteria. The present study was undertaken to evaluate IgG-/IgA-/IgM-aCL and anti- $\beta$ 2GPI occurrence in relation to disease phenotype, smoking habits, pharmacotherapy, APS-related events, and organ damage among Swedish SLE patients.

**Methods** 526 SLE patients meeting ACR-97 were included. Blood donors and patients with rheumatoid arthritis or primary Sjögren's syndrome served as controls. Serum anti-phospholipid antibodies (aPL) were analysed by enzyme-immunoassays.

**Results** 76 (14%) SLE cases fulfilled the Sydney APS-criteria, and at least 1 aCL/anti- $\beta$ 2GPI isotype (IgG/IgA/IgM) occurred in 138 SLE patients (26%). 44 (8%) of the SLE cases had

IgA-aCL, of whom 20 (4%) lacked IgG-/IgM-aCL. 74 (14%) tested positive for IgA anti- $\beta$ 2GPI, 34 (6%) being seronegative regarding IgG/IgM anti- $\beta$ 2GPI. 6 (1%) had manifestations compatible with APS and were seropositive regarding IgA-aCL and/or IgA anti- $\beta$ 2GPI in absence of IgG/IgM-aPL and LA. Positive LA- and IgG-aPL tests associated with most APS-related events and organ damage. Exclusive IgA anti- $\beta$ 2GPI occurrence associated inversely with Caucasian ethnicity and photosensitivity. Nephritis, smoking, LA-positivity and statin/corticosteroid-medication associated strongly with organ damage, whereas ongoing hydroxychloroquinemedication was protective.

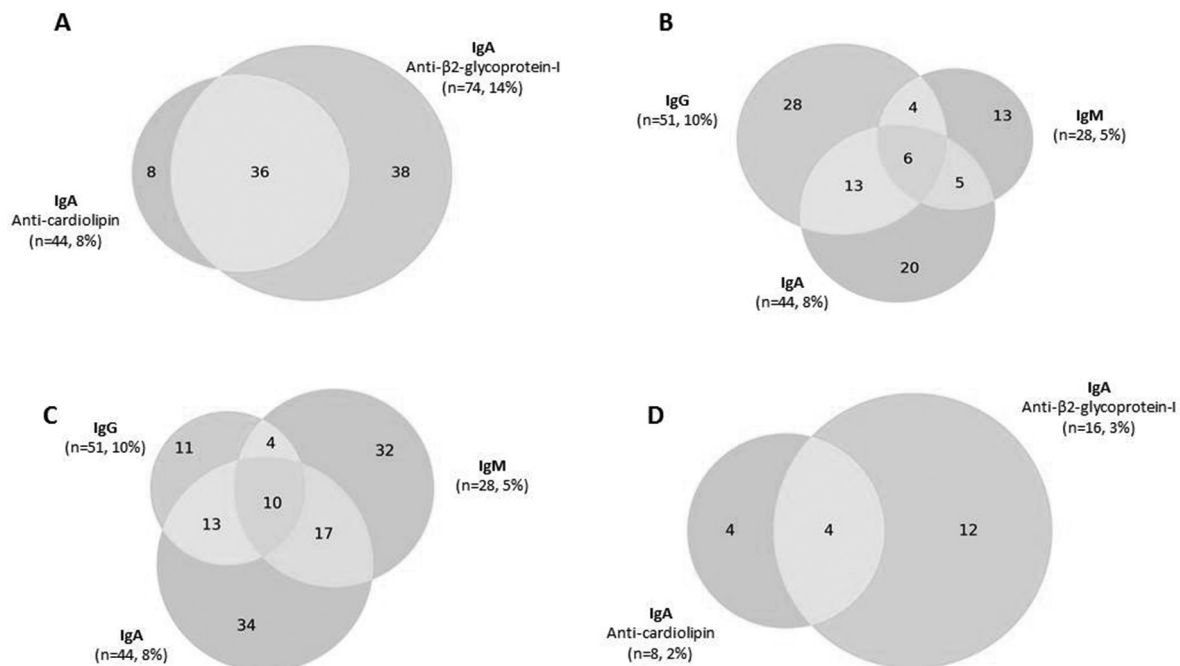
**Conclusions** IgA-aPL is not uncommon in SLE (16%). Exclusive IgA anti- $\beta$ 2GPI±IgA aCL associated with non-Caucasian ethnicity. IgA-aPL analysis may be of additional value among clinically suspected APS-patients testing negative for other isotypes of aPL and LA.

**PS4:72 ANTIPHOSPHOLIPID ANTIBODIES AND AUTOIMMUNE HEMOLYTIC ANAEMIA IN SYSTEMIC LUPUS ERYTHEMATOSUS: A CASE-CONTROL STUDY**

<sup>1</sup>F Crisafulli, <sup>1</sup>L Andreoli, <sup>2</sup>F Franceschini, <sup>2</sup>M Frassi, <sup>2</sup>M Fredi, <sup>2</sup>C Nalli, <sup>1</sup>A Tincani. <sup>1</sup>Rheumatology and Clinical Immunology Unit, Spedali Civili and University of Brescia, Italy; <sup>2</sup>Rheumatology and Clinical Immunology Unit, Spedali Civili of Brescia, Italy

10.1136/lupus-2018-abstract.118

**Purpose** Hemolytic anaemia with reticulocytosis is included in ACR and SLICC classification criteria of Systemic Lupus Erythematosus (SLE). Some studies have assessed the relationship between antiphospholipid antibodies (aPL) and autoimmune hemolytic anaemia (AIHA) in SLE patients. Some of them had describe a correlation with the presence of Lupus



**Abstract PS4:71 Figure 1** A: distribution of IgA aCL and IgA anti- $\beta$ 2GPI positive cases in the full SLE cohort. 82 (16%) of the SLE cases had IgA positivity, 44 (8%) of aCL and 74 (14%) of anti- $\beta$ 2GPI type. B: Distribution of IgG/A/M isotypes of aCL in the SLE cohort. 89 (17%) SLE cases were positive for at least one aCL isotype. C: Distribution of IgG/A/M isotypes of anti- $\beta$ 2GPI in the SLE cohort. 121 (23%) SLE cases were positive for at least one anti- $\beta$ 2GPI isotype. D: Distribution of exclusively IgA aCL and IgA anti- $\beta$ 2GPI positive cases in the SLE cohort. 20 (4%) of the SLE cases had IgA positivity, 8 (2%) of aCL and 16 (3%) of anti- $\beta$ 2GPI type

Abstract PS4:72 Table 1

	AIHA (%) n=16	CONTROLS (%) n=32	p value
<b>aPL positivity</b>	13 (81)	14 (44)	<b>0,0164</b>
Single aPL positivity	2 (13) *	4 (13)	1,0000
Double aPL positivity	8 (53) *	7 (22)	<b>0,0459</b>
Triple aPL positivity	1 (7) *	3 (9)	1,0000
<b>aCL</b>	6 (39)	8 (25)	0,5026
<b>aCL IgG</b>	4 (25)	8 (25)	1,0000
low-titer	2 (13)	2 (6)	0,5921
medium-titer	2 (13)	5 (16)	1,0000
high-titer	0 (0)	1 (3)	1,0000
<b>aCL IgM</b>	4 (25)	4 (13)	0,4130
low-titer	3 (19)	3 (9)	0,3858
medium-titer	1 (6)	1 (3)	1,0000
high-titer	0 (0)	0 (0)	1,0000
<b>β<sub>2</sub>GPI</b>	10 (63)	13 (41)	0,2221
<b>β<sub>2</sub>GPI IgG</b>	8 (50)	10 (31)	0,2258
low-titer	6 (39)	6 (19)	0,1776
medium-titer	2 (13)	1 (3)	0,2544
high-titer	0 (0)	3 (9)	0,5412
<b>β<sub>2</sub>GPI IgM</b>	6 (39)	6 (19)	0,1776
low-titer	4 (25)	5 (16)	0,4566
medium-titer	2 (13)	0 (0)	0,1064
high-titer	0 (0)	1 (3)	1,0000
<b>IgG (aCL+β<sub>2</sub>GPI)</b>	12 (75)	18 (56)	0,3431
<b>IgM (aCL+β<sub>2</sub>GPI)</b>	10 (63)	10 (31)	0,5908
<b>LAC</b>	8 (50) *	5 (16)	<b>0,0131</b>

\* n=15

anticoagulant (LAC) as other highlighted the association with a positive anti-B2glycoprotein I (B2GPI) IgG or anti-cardiolipin (aCL) IgM. The purpose of our preliminary study is to analyse and compare aPL positivity in two groups of SLE patients, one with a history of AIHA and one without it.

**Methods** The retrospective analysis of our cohort of 514 SLE patients showed that 16 subjects fulfil a completely documented diagnosis of AIHA at some stage of their disease. These subjects and 32 consecutive SLE patients without any haematological manifestations were included in this study. Clinical and serological data were obtained from medical records of our clinic. We compared the prevalence of aPL, their type (aCL IgG and IgM, B2GPI IgG and IgM, LAC) and titre using Fisher exact test in the two groups of patients.

**Results** Lupus patients with AIHA had a significantly higher frequency of aPL positivity compared with SLE patients without AIHA (81% vs 44%, p value=0,0164). Furthermore, double aPL positivity was detected in 53% of patients with AIHA as in the control group was 22% (p value=0,0459). The positivity of aCL and B2GPI was higher in the group of patients with history of AIHA than in the control group (39% vs 25% and 63% vs 41%, respectively) but the difference was not statistically significant; table1 details the results of each antibody isotype and titres. The presence of LAC was significantly associated with history of AIHA (p value=0,0131).

**Conclusions** In this control-case study the frequency of aPL was higher in SLE patients with a history of AIHA. In particular, in this group we found a higher frequency of double aPL positivity. Between aPL, LAC had the strongest association with AIHA. The absence of statistical difference considering aCL and B2GPI positivity and titres could be due to the low sample size.

#### PS4:73 EFFECT OF HYDROXYCHLOROQUINE AND PREDNISONE TREATMENT ON ANTIPHOSPHOLIPID TITERS IN SLE

<sup>1</sup>M Avci, <sup>2</sup>L Magder, <sup>3</sup>M Petri. <sup>1</sup>Istanbul Faculty of medicine, Istanbul, Turkey; <sup>2</sup>University of Maryland School of Medicine, Baltimore, MD, USA; <sup>3</sup>Johns Hopkins University School of Medicine, Baltimore, MD, USA

10.1136/lupus-2018-abstract.119

**Background** Antiphospholipid antibodies in SLE may be affected by disease activity and treatment, but past studies have been conflicting. We investigated the association of titers of antiphospholipid antibodies with disease activity and therapy.

**Methods** 943 SLE patients, who had at least 10 quarterly visits for testing for each anticardiolipin isotype (IgG, IgM and IgA) and dRVVT, were included in the study. Disease activity