ABSTRACT NUMBER: 1964

The Frequency and Clinical Significance of IgA Anticardiolipin and Anti-β2-Glycoprotein-I Antibodies in Antiphospholipid Antibody Patients with and without Lupus

Ayten Yazici[1,2], OZAN UNLU[3], Cecilia B. Chighizola[4], Doruk Erkan[5], Michelle Petri[6] and On Behalf of APS ACTION .[7], [1]Hospital for Special Surgery, Cornell Weill Cornell Medicine, NEW YORK CITY, NY, Turkey, [2]Rheumatology, Kocaeli University School of Medicine, Kocaeli, Turkey, [3]Rheumatology Department, Hospital for Special Surgery, Weill Cornell Medicine, New York, NY, [4]Department of Clinical Sciences and Community Health, University of Milan, IRCCS Istituto Auxologico Italiano, Milano, Italy, [5]Rheumatology, Hospital for Special Surgery- Weill Cornell Medicine, New York, NY, [6]Rheumatology Division, Johns Hopkins University School of Medicine, Baltimore, MD, [7]., New York, NY

Meeting: 2016 ACR/ARHP Annual Meeting

Date of first publication: September 28, 2016

Keywords: Anticardiolipin, antiphospholipid antibodies and antiphospholipid syndrome

SESSION INFORMATION

Date: Monday, November 14, 2016

Session Title: Antiphospholipid Syndrome

Session Type: ACR Concurrent Abstract Session

Session Time: 2:30PM-4:00PM

Background/Purpose: APS ACTION International Clinical Database and Repository was created to study the natural course of disease over 10 years in persistently antiphospholipid antibody (aPL)-positive patients with/without other systemic autoimmune diseases (SAIDx). Although, IgA aCL and IgA aβ_2GPI were included in the new SLICC systemic lupus erythematosus (SLE) classification criteria, the prevalence and clinical significance of IgA isotype have been controversial. Thus our objective was to better define the prevalence and clinical significance of IgA aCL and aβ_2GPI in aPL-positive patients with/without SLE.

Methods: A web-based data capture system is used to store patient demographics, aPL-related history, and medications. The inclusion criteria are positive aPL based on the Updated Sapporo classification criteria at least twice within one year prior to enrolment. Patients are followed every 12±3 months with clinical data and blood collection. The baseline samples are analysed in the APS ACTION core laboratories to confirm aPL-positivity. For this cross sectional study, using chi square test, we compared the demographic and clinical characteristics of aPL-positive patients with/without SLE based on different aCL/aβ_2GPI isotypes.

Results: As of April 2016, 638 aPL-positive patients recruited from 24 centers; 489 (77%) had core laboratory assessments of IgG/M/A aCL/aβ_2GPI. Forty-two patients were excluded due to the diagnosis of a SAIDx other than aPL/APS and/or SLE. Thus, 320 (72%) aPL-positive patients without SLE (258 [81%] with APS) and 127 (28%) with SLE (96 [76%] with APS) were analyzed. The frequency of aCL and aβ_2GPI IgG/M/A positivity (defined as > 20U) was not different between the two groups

except the IgG isotype, which was more common in aPL-positive patients without SLE (53% vs 42% [p: 0.03] for aCL and 38% vs 21% [p: 0.03] for aβ_2GPI). However, the frequency of IgA aβ_2GPI positivity was 3-fold higher than IgA aCL positivity (33% vs 11% [p<0.001] in those with SLE, and 32% vs 12% in those without SLE [p<0.001]). The demographics and aPL-related clinical manifestations were not different among aCL/aβ_2GPI IgG, IgM, and IgA isotypes (Table). The results were similar when the aCL/aβ_2GPI ELISA cut-off was set to 40U. Of note, the frequency (%) of isolated aCL IgG/M/A- and aβ_2GPI IgG/M/A-positive patients (independent of the LA status) were 22/19/1 and 11/11/8, respectively (when the ELISA cut-off was set to 20U); isolated aβ_2GPI IgA positivity was significantly higher in aPL-positive patients with SLE, compared to those without SLE (p: 0.006).

Conclusion: Although IgA aβ_2GPI positivity is more common than IgA aCL positivity, especially in SLE, the aCL/aβ_2GPI IgA isotype does not distinguish between aPL-positive patients: a) with/without SLE; and b) with different aPL-related clinical events.

Table: Clinical features of All IgG, IgM and IgA aPL positive patients, cut-off aPL ELISA ≥20u.

n (%)	aCL IgG n=224	aCL IgM n=200	aCL IgA n=54	aB$_2$GPI IgG n=149	aB$_2$GPI IgM n=135	aB$_2$GPI IgA n=143	p
Gender (F)	158(70.5)	146 (73)	36 (66.7)	103 (69.1)	94 (69.6)	99 (69.2)	0.986
Caucasian Black Others	143 (63.8) 3 (1.4) 78 (34.8)	135 (67.5) 6 (3) 59 (29,5)	34 (63) 4 (7.4) 16 (29,6)	94 (63.1) 2 (1.3) 53 (35,6)	91 (67.4) 3 (2.2) 41 (30,4)	91 (63.6) 8 (5.6) 44 (30,8)	0.905
Mean Age	46.9±12.1 (18-81)	48.3±12.4 (18-83)	49.1±13.4 (26-81)	46.6±12.1 (18-81)	48.8±13 (18-83)	48.9±12.3 (23-81)	N/A
SLE	53 (23.7)	50 (25)	14 (25.9)	26 (17.4)	32 (23.7)	42 (29.4)	0.305
Thrombosis	133 (57.4)	104 (52)	33 (61.1)	95 (63.7)	71 (52.6)	81 (56.6)	0.237
Obstetric	17 (7.6)	22 (11)	7 (13)	12 (8.1)	11 (8.1)	10 (7)	0.615
Thrombosis + Obstetric	35 (15.6)	27 (13.5)	8 (14.8)	19 (12.8)	19 (14.1)	24 (16.8)	0.927
Non-criteria*	39 (17.4)	47 (23.5)	6 (11.1)	23 (15.4)	34 (25.2)	28 (19.6)	0.093

*Sapporo Classification Criteria not met

Disclosure: A. Yazici, None; **O. UNLU**, None; **C. B. Chighizola**, None; **D. Erkan**, None; **M. Petri**, None; **O. B. O. A. A. .**, None.

To cite this abstract in AMA style:

Yazici A, UNLU O, Chighizola CB, Erkan D, Petri M, . OBOAA. The Frequency and Clinical Significance of IgA Anticardiolipin and Anti-β2-Glycoprotein-I Antibodies in Antiphospholipid Antibody Patients with and without Lupus [abstract]. *Arthritis Rheumatol.* 2016; 68 (suppl 10). http://acrabstracts.org/abstract/the-frequency-and-clinical-significance-of-iga-anticardiolipin-and-anti-%ce%b22-glycoprotein-i-antibodies-in-antiphospholipid-antibody-patients-with-and-without-lupus/. Accessed July 27, 2017.
