SAT0203

SINGLE LAC POSITIVITY VERSUS DOUBLE AND TRIPLE POSITIVITY FOR THROMBOSIS IN SLE

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Background: The antiphospholipid syndrome (APS) is defined by the development of venous and/or arterial thromboses, and pregnancy morbidity, in the presence of antiphospholipid antibodies (aPL); lupus anticoagulant, moderate-to-high titer anticardiolipin (aCL) and anti-β₂-glycoprotein (aB₂GPI). It has been suggested that the incidence of thromboembolic events were significantly higher in the triple positive subjects, and the rate of pregnancy loss was also significantly much higher in double positive subjects (1). On the other hand several studies showed that LAC is more highly associated with thrombosis risk (2).

Objectives: We aimed to investigate the risk of thrombosis in Systemic Lupus Erythematosus (SLE) patients with single LAC positivity versus double and triple positivity in Hopkins Lupus Cohort.

Methods: The Hopkins Lupus Cohort is a prospective longitudinal cohort of SLE patients ongoing since 1987. This analysis was based on cohort experience from 2003 through October 2019. Anticardiolipin and anti-Beta2 glycoprotein were defined as positive when the antibody titer exceeded 20 units. The lupus anticoagulant was determined by dilute Russell's viper venom time (dRVVT) and confirmatory mixing studies, if prolonged. It is defined as positive if a patient had a dRVVT of 45 or more second and a positive confirm ratio of more than 1.4. For each aPL, we defined the patient as positive at a given month of follow up if they ever had a positivity in previous measures. The relationships between thrombosis and aPL were adjusted for number of prior aPL assessment.

Results: There were 805 patients with a complete profile of 7 antiphospholipid antibodies, with a total of 73417 person months (6118 person years) of follow up. For any thrombosis when compared to patients with LAC positivity only, double positivity with any isotypes [1.15(0.50, 2.66) p=0.7484] and triple positivity with any isotypes [1.68(0.74, 3.80), p=0.2145] showed a higher point estimates but statistically not significant (Table 1).

Table 1. Single, double and triple positive patterns and the risk of any thrombosis.

Pattern	Number of events	Person-years	Rate per 1000 person-years	adjusted RR (95% CI)	p-value
LAC positivity only	10	633	15.8	1.00 (Ref)	
Never any aPL	33	2581	12.8	0.73(0.36, 1.47)	0.3819
any aCL positivity only	6	793	7.6	0.43(0.16, 1.18)	0.1028
any aB ₂ GPI positivity only	7	517	13.5	0.78(0.30, 2.05)	0.6195
any aCL and aB ₂ GPI positivity only	5	404	12.4	0.71(0.24, 2.04)	0.5211
LAC and aCL positivity	7	406	17.3	1.15(0.50, 2.66)	0.7484
LAC and aB ₂ GPI positivity	12	490	24.5		
Triple positivity	0	147	0.0	1.68(0.74, 3.80)	0.2145

Conclusion: We found that triple or double positive aPL profiles are not superior to single LAC positivity in their association with any thrombosis in SLE patients.

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SAT0204

COMPARING OCCURRENCE AND CLINICAL SIGNIFICANCE OF ANTI-PHOSPHOLIPID AUTOANTIBODIES AMONG SUDANESE AND SWEDISH SLE PATIENTS USING CONVENTIONAL AND NATION-BASED CUTOFFS

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Table 1.

	FEIA Sudan n=92	FEIA Sweden n=291	P	PMAT/CIA Sudan n=93	PMAT/CIA Sweden n=333	P
IgA CL median/IQR	6.5/5.2	4.0/4.1	<0.0001	194/185	148/112	<0.0001
IgG CL	4.1/5.1	3.0/4.5	0.0002	205/137	190/215.1	0.09
IgM CL	2.7/6.8	3.7/5.4	0.02	214/251.5	193/350.2	0.2
IgA β ₂ GPI	6.3/14.2	2.7/3.8	<0.0001	212/347	118/152	<0.0001
IgG β ₂ GPI	4.2/2.9	1.8/2.3	<0.0001	158/110.7	145.2/147.5	0.04
IgM β ₂ GPI	2.0/3.0	1.4/2.2	0.006	146.2/189.7	132.5/235.4	0.09
IgA B ₂ GPI D1				1542/1253.5	1683/1518.1	0.045
IgA CL common cutoff n(%)	9(9.8)	17(5.8)	0.2	32(35.2)	75(22.7)	0.02
IgG CL	4(4.3)	21(6.7)	0.4	14(15)	72(22.1)	0.1
IgM CL	3(3.2)	14(4.5)	0.6	10(11.4)	43(13.1)	0.6
IgA β ₂ GPI	32(34.8)	43(14.9)	<0.0001	38(41.8)	76(23)	0.0004
IgG β ₂ GPI	10(10.9)	44(14.1)	0.4	5(5.4)	50(15.3)	0.01
IgM β ₂ GPI	10(10.9)	27(8.7)	0.5	12(13.6)	42(12.9)	0.8
IgA B ₂ GPI D1				6(6.4)	38(11.4)	0.2
IgA CL 95 th cutoff n(%)	9(9.8)	54(18.6)	0.047	36(39.6)	121(26.6)	0.6
IgG CL	8(8.7)	42(13.5)	0.2	24(25.8)	103(31.6)	0.3
IgM CL	8(8.7)	39(12.5)	0.3	16(18.2)	47(14.4)	0.4
IgA β ₂ GPI	18(19.6)	100(34.7)	0.006	20(22)	125(37.8)	0.005
IgG β ₂ GPI	2(2.1)	67(21.5)	<0.0001	19(20.4)	83(25.5)	0.3
IgM β ₂ GPI	14(15.22)	57(18.3)	0.5	20(22.7)	57(17.5)	0.3
IgA B ₂ GPI D1				25(26.9)	69(20.7)	0.2

Figure 1.

Background: Antiphospholipid antibodies (aPL) of IgA isotype are prevalent in SLE patients of African-American, Afro-Caribbean and South-African origin, but data from North Africa are lacking

Objectives: To compare and determine clinical significance of aPL isotypes in Sudanese and Swedish SLE patients using nation-based cutoffs