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The Efficacy of Treatment with Low Dose Aspirin and Low Molecular Weight Heparin in Pregnant Women with Criteria Anti-Phospholipid Antibodies

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SESSION INFORMATION

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Session Type: ACR Poster Session A

Session Title: Antiphospholipid Syndrome Poster

Session Time: 9:00AM-11:00AM

Background/Purpose: Anti-phospholipid antibodies (aPL) are the biomarkers of anti-phospholipid syndrome (APS), a systemic autoimmune condition characterized by thrombosis and/or pregnancy morbidity (PM). The aim of this study was to quantify the magnitude of the obstetric risk conveyed by criteria aPL, simultaneously assessing the efficacy of conventional treatment.

Methods: Data on 178 pregnancies in 60 women with persistent criteria aPL positivity (lupus anticoagulant, anti-cardiolipin and/or anti-b2GPI antibodies) were retrospectively collected (Table 1, Table 2). A weighted generalized estimating equations (GEE) model for repeated measures was applied to quantify the probability of PM conveyed by aPL, considering as covariates: number of positive aPL tests, low-dose aspirin (LDASA), low molecular weight heparin (LMWH) and their interaction; systemic autoimmune disease and age>35 years were inserted as confounders.

Results: Women with multiple aPL positivity had a probability of PM twice that of women with single aPL positivity. Women with single criteria aPL positivity had a probability of PM of 77% (95%CI 68-85), which raised to 86% (95%CI 76-93) in case of multiple aPL. Treatment with LDASA reduced the probability of PM to 29% (95%CI 11-57) in women with a single aPL test and to 44% (95%CI 17-75) in women with multiple positive tests. Among women with a single criteria aPL test receiving combo treatment, the probability of PM was 30% (95%CI 20-42). The association LDASA+LMWH reduced to 45% (95%CI 31-59) the probability of PM in women with multiple aPL tests.

Conclusion: This retrospective longitudinal cohort study showed that LDASA+LMWH allowed a significant decrease of PM in women with single but not multiple criteria aPL. Even though the

association regimen led to a reduction of the probability of PM from 86% to 45% in patients with a high-risk aPL profile, it might be worth to add supplementary therapeutic tools.

Table 1.

	Criteria aPL **(N of patients: 60)**
Age at first conception, years	30.8 (5.78)
Systemic AD	28 (46.7%)
Organ-specific AD	11 (18.3%)
Pregnancy complications	16 (26.7%)
None	26 (43.3%)
≥ 3 PrL before 10 gw	10 (16.7%)
PrL after 10 gw	8 (13.3%)
Premature birth before 34 gw	
Thrombotic events	12 (20.0%)
Arterial	4 (6.7%)
Venous	7 (11.7%)
Arterial + venous	1 (1.6%)
LA	45 (75.0%)
aCL IgG/IgM	25 (41.7%)
anti-b2GPI IgG/IgM	30 (50.0%)
Number of positive aPL tests	37 (61.7%)
1	6 (10.0%)
2	17 (28.3%)
3	21 (60.0%)
aPL isotypes	9 (25.7%)
IgG	5 (14.3%)
IgM	

IgG + IgM	

Table 2.

	Criteria aPL (N of pregnancies: 178)
Pregnancy complications	72 (40.5%)
None	68 (38.2%)
≥ 3 PrL before 10 gw	23 (12.9%)
PrL after 10 gw	15 (8.4%)
Premature birth before 34 gw	
Treatments	81 (45.5%)
None	18 [8] (14.6%)
LDASA [+ HCQ]	52 [14] (37.1%)
LDASA + LMWH [+ HCQ]	4 (2.2%)
LMWH	1 (0.6%)
HCQ	

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