Poster Presentations

SLE, Sjögren's and APS - clinical aspects (other than treatment)

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FRI0327 Serum Anti-Phospholipid Antibody Prevalence and Cardiovascular Significance in The General Population of The Camelia Study

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Abstract

Background The serum anti-phospholipid antibody (aPLs) prevalence in the general population and the association with cardiovascular disease and risk factors remain unclear.

Objectives To test serum samples from a population study for aPLs and determine the presence of cardiovascular and metabolic comorbidities in a Northern Italian city.

Methods We performed a cross-sectional study on 1712 adult subjects (median age 47 year-old, interquartile range 37–61, 49.8% women), randomly enrolled in 2010 from the voting lists of a 32.000-population city in the Lombardia region. All subjects completed a questionnaire for

medical history and ongoing/past medications and underwent physical examination and abdomen and carotid ultrasound. Anti-cardiolipin (aCL), anti-beta2 glycoprotein I (aGPI), anti-phosphatidylserine-prothrombin (aSP) IgG, IgM, and IgA antibodies were tested in all subjects by ELISA.

Results At least one aPL was positive in 258 (15.1%), at high titer in 56 (3.3%) subjects; 35 (2%) were positive for two or more aPL, 15 (0.9%) at high titer. Serum aCL were positive in 26 (1.5%) subjects, at high titer in 17 (1%), without additional aPL in 2; IgG in 15 (0.9%; at high titer in 11), IgM in 18 (1.1%, at high titer in 10), IgA at high titer in 4 (0.2%). Serum aGPI were positive in 73 (4.3%) subjects, at high titer in 48 (2.8%), without additional aPL in 4; IgG in 20 (1.2%; at high titer in 3), IgM in 28 (1.6%, at high titer in 6), IgA in 35 (2%, at high titer in 12). Serum aSP were positive in 201 (11.7%) subjects, at high titer in 29 (1.7%), without additional aPL in 167; IgG in 157 (9.2%, at high titer in 19), IgM in 65 (3.8%, at high titer in 12). Women represented 53.1% of aPL positive subjects, with higher incidence for aGPI, especially IgA, and aSP. Among aPL positive subjects, there were 10 cases of acute myocardial infarction, 7 strokes, 17 peripheral arteriopathy and 22 increased intimal-medial-thickness. Positivity for aPL was associated with older age, particularly for aGPI and aSP, while high-titer aCL IgG and aSP IgG were associated with tobacco smoking. Hypertension and hypercholesterolemia were significantly associated to aGPI IgG and IgM positivity, respectively. Hyperhomocystinemia was significantly associated with high titer multiple aPLs. Hyperuricemia was associated with aSP IgG positivity. Subjects with positive aPL had significantly higher frequency of thyroid disease (p=0.02 for high titer), peripheral arteriopathy (crude odds ratio –OR- 2; 95% confidence interval –CI- 1.2–3.6; isolated aCL crude OR 25.1; 95% CI 1.6–405.4), myocardial infarction (isolated aCL crude OR 28.5; 95%CI 1.8–460.5). Importantly, adjusted ORs for cardiovascular risk factors were not statistically significant.

Conclusions We confirm that serum aPL are common in the general population, particularly at older age and possibly in association with smoking. Serum aPL is associated with common cardiovascular risk factors and specific events, however this latter effect needs to be clarified in the follow-up study to determine the real impact of aPL on the risk of cardiovascular events.

Disclosure of Interest None declared

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