

**Conclusions** It was established the relationship of antiphospholipid syndrome with the process of atherosclerosis.

The presence of atherosclerotic plaques is not associated with traditional risk factors.

Not establish a connexion between antiphospholipid antibodies and IMT.

Proven connexion between aCL and carotid plaques.

Not establish correlation between aPL and Ca score.

Persons with APS have a higher incidence of Calcium score versus healthy controls.

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# **SOME ANTI-CALDIOLIPIN-BETA2-GPI ANTIBODIES BRING THROMBOPHILIC DIATHESIS BY THE DUAL REACTIVITY TO DNA AND INTERNALISATION TO LIVE CELLS ACCOMPANYING DNA**

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**Background and aims** In antiphospholipid syndrome (APS), antibodies reactive to CL-beta2-GPI are known to be the important pathogenic factor, but the mechanism of the interaction between the antibodies and cells, and the reason why APS is highly associated with SLE are not fully elucidated.

**Methods** Since we obtained a monoclonal antibody WB-6 which shows reactivity to CL-beta2-GPI and induces a pro-thrombotic state in normal mice by tissue factor expression upon circulating monocytes, we tried to clarify how this antibody interacts with live cells.

**Results** In the current study, we found unexpectedly that WB-6 reacted with DNA by direct-binding ELISA which was confirmed by inhibition ELISA. The result of epitope mapping on the domain 1 of beta2-GPI suggested that WB-6 binds to the arginine- and lysine-rich peptides close to the N-terminal of beta2-GPI, not directly but indirectly via DNA. Incubation of endothelial cell lines or monocytic THP-1 cells with WB-6 revealed that WB-6 enter into the live cells. Because pre-treatment of the cells with DNase 1 significantly reduced the internalisation, and addition of extracellular DNA into the culture significantly increased the internalisation, this phenomenon is likely to be resulted from interaction of WB-6 and cell surface DNA.

**Conclusions** These results suggest that some anti-DNA antibodies show dual reactivity with CL-beta2-GPI via DNA, and this may contribute to the high percentage of association with SLE in APS. Such an antibody can enter live cells with DNA, and activate intracellular DNA sensors to induce tissue factor expression, without participation of the cell surface beta2-GPI and its still controversial receptors.

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# **IDENTIFYING CLINICAL AND EPIDEMIOLOGICAL RISK FACTORS ASSOCIATED WITH THROMBOSIS AND PREGNANCY MORBIDITY IN A LARGE COHORT OF CHINESE APS PATIENTS**

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**Background and aims** The evaluation of thrombotic and pregnancy risks associated with antiphospholipid antibodies (aPLs) in individual patients is challenging. Our objective was to identify potential clinical and epidemiological predictors of thrombosis and pregnancy morbidities in a large Chinese antiphospholipid syndrome (APS) cohort.

**Methods** This cohort included 177 consecutive APS patients and 146 asymptomatic aPLs control patients who attended the rheumatology clinic at People's Hospital of Beijing University Health Science Centre. All APS patients fulfilled the 2006 revised criteria APS. All control patients had at least one persistent positive aPLs without any other criteria APS manifestations. When assessing risk factors associated with pregnancy morbidities, only reproductive age (age <45) female controls were used. Chi-squared or Fisher's exact test univariate analysis and multivariable logistic regression analyses were used to assess association between different clinical and epidemiological risk factors and clinical manifestations.

**Results** Of the 177 APS patients, 134 (75.7%) were women with a mean age of 43.5 (S.D. 16). When comparing to controls, risk factors associated with thromboembolic events included: Raynaud's phenomenon (odds ratio (OR)=2.371, 95% Confidence interval (CI) 1.039–5.637, p=0.0462), hypertension (OR=1.829, 95% CI 1.114–3.05, p=0.022), and smoking (OR=3.941, 95% CI 1.816–8.799, p=0.0004). Age, hyperlipidemia, diabetes, hypocomplementemia, and thrombocytopenia did not demonstrate significant association with thrombosis. None of the analysed clinical characteristics showed significant association with pregnancy morbidities. A high frequency of thrombocytopenia and hypocomplementemia were observed in both APS patients and control patients with persistent +aPLs.

**Conclusions** Smoking, Raynaud's phenomenon, and hypertension are potential predictors of thromboembolic events in +aPLs Chinese patients.

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# **LONG-TERM PROGNOSIS AND PREDICTING FACTORS OF CHINESE PATIENTS WITH ANTIPHOSPHOLIPID SYNDROME**

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**Background and aims** The aims of the present study were to assess and identify the prognostic factors of the long-term outcomes and mortality of antiphospholipid syndrome (APS) in Chinese patients.

**Methods** Records of 160 patients with APS admitted to Peking Union Medical College Hospital in Beijing between 2005 and 2015 were investigated. Demographic characteristics, cumulative clinical and laboratory features, autoantibody profiles were retrieved from the database. Survival rates were studied by Kaplan-Meier method, and COX proportional hazard model was adopted to perform the analysis of predicting factors for mortality.

**Results** The entire cohort consisted of 110 (68.8%) female and 50 (31.3%) male patients. Mean (SD) age was 36.5±14.9 years. In total, 50.6% of the patients had primary APS, 45.9% had APS associated with SLE. The most prevalent immunological features at baseline were LA (71.3%), aCL (55.0%), and  $\beta$ 2GPI(49.4%). No significant statistical