Objectives IgG- and IgM-class anti-cardiolipin antibodies (aCL) and lupus anticoagulant (LA) are included in the 1997 update of the American College of Rheumatology (ACR-97) systemic lupus erythematosus (SLE) classification criteria. Despite limited evidence, IgA-aCL and IgA anti-β2-glycoprotein-I (anti-β2GPI) were included among the 2012 Systemic Lupus International Collaborating Clinics classification criteria. The present study was undertaken to evaluate IgG-/IgA-/IgM-aCL and anti-β2GPI occurrence in relation to disease phenotype, smoking habits, pharmacotherapy, APS-related events, and organ damage among Swedish SLE patients.

Methods 526 SLE patients meeting ACR-97 were included. Blood donors and patients with rheumatoid arthritis or primary Sjögren’s syndrome served as controls. Serum anti-phospholipid antibodies (aPL) were analysed by enzyme-immunoassays.

Results 76 (14%) SLE cases fulfilled the Sydney APS-criteria, and at least 1 aCL/anti-β2GPI isotype (IgG/IgA/IgM) occurred in 138 SLE patients (26%). 44 (8%) of the SLE cases had IgA-aCL, of whom 20 (4%) lacked IgG-/IgM-aCL. 74 (14%) tested positive for IgA anti-β2GPI, 34 (6%) being seronegative regarding IgG/IgM anti-β2GPI. 6 (1%) had manifestations compatible with APS and were seropositive regarding IgA-aCL and/or IgA anti-β2GPI in absence of IgG/IgM-aCL and LA. Positive LA- and IgG-aCL tests associated with most APS-related events and organ damage. Exclusive IgA anti-β2GPI occurrence associated inversely with Caucasian ethnicity and photosensitivity. Nephritis, smoking, LA-positivity and statin/corticosteroid-medication associated strongly with organ damage, whereas ongoing hydroxychloroquinemedication was protective.

Conclusions IgA-aPL is not uncommon in SLE (16%). Exclusive IgA anti-β2GPI±IgA aCL associated with non-Caucasian ethnicity. IgA-aPL analysis may be of additional value among clinically suspected APS-patients testing negative for other iso-types of aPL and LA.