LSO-009 **THE IMPACT OF HIGH-RISK ANTIPHOSPHOLIPID ANTIBODIES PROFILE ON MAJOR ORGAN DAMAGE PROGRESSION IN SYSTEMIC LUPUS ERYTHEMATOSUS: CSTAR MULTIPLE PROSPECTIVE COHORT STUDY**

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10.1136/lupus-2023-KCR.52

Background With the improvement in survival, the prevention of cumulative organ damage has become a major goal in the management of systemic lupus erythematosus (SLE). Patients with autoimmune disease suffered from an increasing risk of cardiovascular disease (23·3 events per 1000 patient-years[1]). Although antiphospholipid (aPLs) antibodies, including anticardiolipin antibodies, anti-β2 glycoprotein I, and lupus anticoagulant, were associated with vascular events in antiphospholipid syndrome, the role of APLs in SLE patients was not yet determined. Based on the Chinese SLE treatment and research (CSTAR) multi-center prospective study, we aimed to identify the predictive value of high-risk aPLs on cumulative organ damage progression in SLE.

Methods Demographic characteristics, autoantibody profiles, clinical manifestations, disease activity status, and organ damage were collected at baseline. High-risk aPLs profile was defined according to 2019 EULAR recommendations for APS[2] (the presence of lupus anticoagulant, or double or triple aPL positivity, or the presence of persistently high aPLs titers).

Results A total of 2132 SLE patients with full follow-up data were recruited and 424 (19.9%) showed high-risk aPLs profiles. 453 (21.2%) patients developed new organ damage during a mean follow-up of 4.40±2.64 years, and 143(31.6%) are cardio-cerebral vascular damage. At baseline, patients with high-risk aPLs profile have a higher rate of neurological involvement (12.5% vs 7.6%, p=0.001). As shown in figure 1, cox regression analysis showed that high-risk aPLs profile can predict new-onset organ damage (HR=1.99, 95% CI, 1.63–2.43, p<0.001) and cardio-cerebral vascular damage (HR=7.83, 95% CI, 5.56–11.03, p<0.001). After adjusted of gender(male), age, smoking history, diabetes mellitus, hypertension, and other SLE related potential confounders, high-risk aPLs profile was still found to be an independent predictor which can predict cardio-cerebral vascular events (HR=7.12, 95% CI, 5.03–10.14, p<0.001) (figure 1).

Conclusions SLE patients with high-risk aPLs profile warrant more care and surveillance of cardio-cerebral vascular events during follow-up.

REFERENCES

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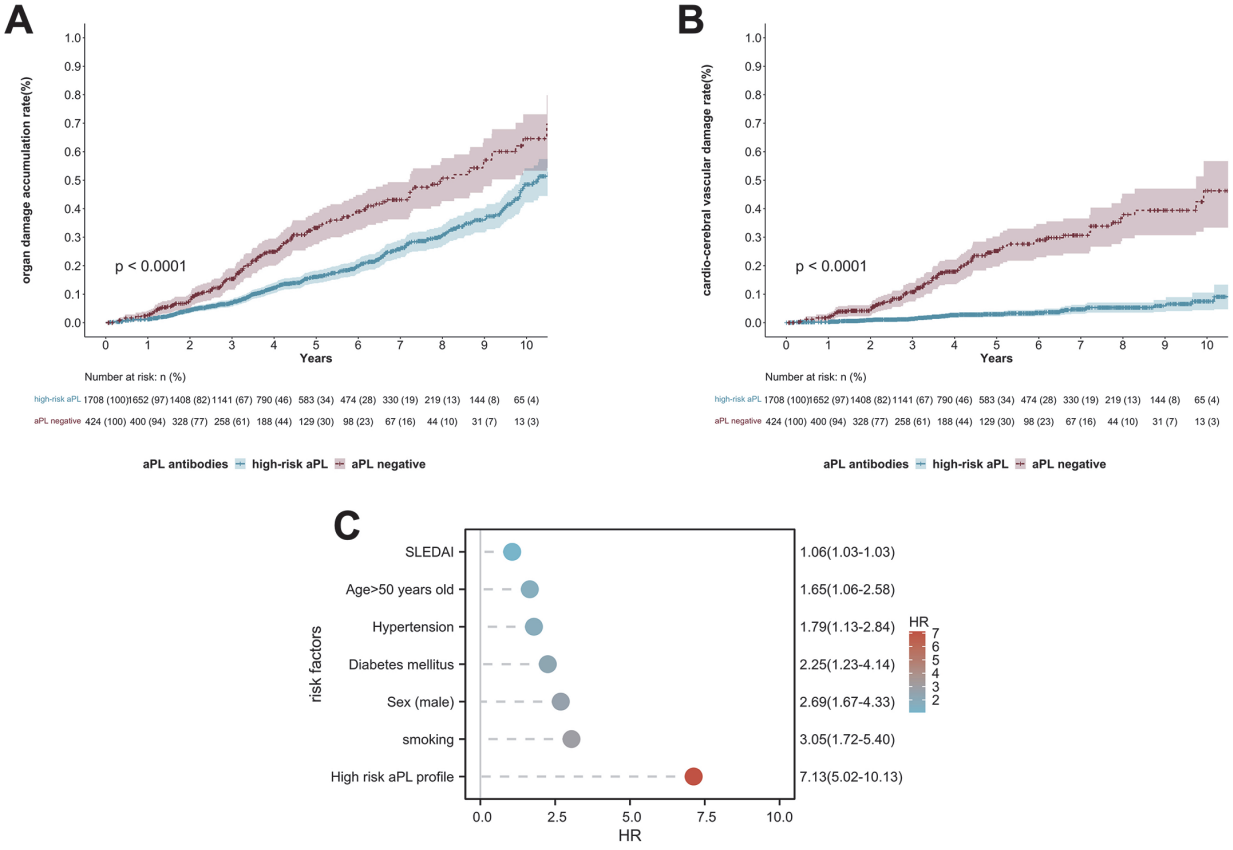

Abstract LSO-009 Figure 1 (A). Cumulative probability of new-onset organ damage in patients with or without high-risk aPLs profile. (B). Cumulative probability of cardio-cerebral vascular damage in patients with or without high-risk aPLs profile. (C). Risk factors of cardio-cerebral vascular damage in SLE patients