Systemic lupus erythematosus is a risk factor for cardiovascular disease: A nationwide population-based study

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Background: Cardiac involvement is present in more than half of the patients with systemic lupus erythematosus (SLE). However, large scale studies on the prevalence of atrial fibrillation (AF) in this disease do not exist.

Aim: We aimed to investigate the incidence and clinical significance of cardiovascular disease (CVD) in SLE patients.

Methodology: SLE patients (n=21,143; mean age, 14.8±13.13 years; female, 90.38%) without previous CVD were selected from the Korean National Health Insurance Service National Sample Cohort database between 2008 and 2014 respectively. Age-and sex-matched controls (n=105,715) were randomly sampled in a 5:1 ratio from non-SLE individuals. Both cohorts were followed up for incident CVD and death until 2015.

Results: During 8 years of follow-up, atrial fibrillation was newly detected in 481 (2.27%) SLE patients and 619 (0.59%) controls (incidence: 3.692 and 0.941 per 1000 person-years respectively). SLE patients were at higher risk for atrial fibrillation development compared to controls (hazard ratio, 3.926; 95% confidence interval, 3.484-4.422) after multivariate adjustment. On subgroup analysis, SLE increased the risk for atrial fibrillation, especially in younger (age younger than 40 years) female without comorbidities.

Conclusions: SLE was an independent risk factor for CVD development in patients without previous CVD, especially in younger female, stressing the importance of cardiac assessment in SLE patients.

Biography

Sang Yeob Yim pursued his MD from Chonnam University School of Medicine, Republic of South Korea. He works as Interventional Cardiologist at Korea University Ansan Hospital. He has published more than 30 papers in reputed journals.