patients with SLE occurred after the age of 40 compared to those with diabetes mellitus (DM).

Methods Incident SLE patients aged over 40 years and age-sex matched (1:4:4) controls with DM or general population were identified from the nationwide claims database in Korea between 2008 and 2018. We defined CVD risk as ischemic heart disease, stroke, and cardiac death. The incidence rate (IR), incidence rate ratio (IRR), and adjusted hazard ratio (HR) of CVDs were calculated using generalized estimating equation models.

Results We identified 4,272 SLE, 17,003 DM, and 17,088 general population patients aged over 40 years. Their mean age was 53.1 (±9.7) and 87.1% of them were female. The IR per 1,000 person-years (PYs) of CVDs for SLE, DM, and general population were 16.8, 11.7, and 5.7, respectively. Compared to general population, patients with SLE (IRR 3.27, 95% CI 2.78–3.85) and DM (IRR 2.77, 95% CI 2.02–2.56) showed higher CVD risk compared to general population. Increased risk of CVDs in SLE patients was highest in their forties (IRR 4.13, 95% CI 3.06, 5.59). After adjusting confounders, the CVD risk of SLE (HR 1.99, 95% CI 1.66–2.38) was higher than DM (HR 1.39, 95% CI 1.22–1.58) patients.

Conclusions Older onset SLE patients had increased CVD risk compared to general population. Even after adjustment for confounders, older onset SLE patients showed higher CVD risk than DM patients in Korea.

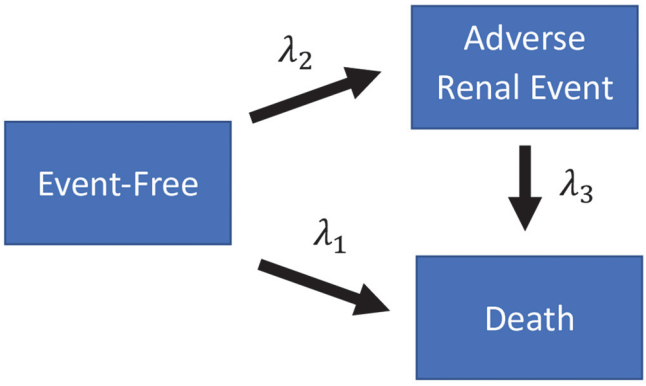
LSO-103 CHILDHOOD-ONSET SYSTEMIC LUPUS ERYTHEMATOSUS: LONG-TERM OUTCOMES IN A LARGE MULTI-ETHNIC ONTARIO COHORT

[1]Ha-Seul Jeoung*, [2]Kuan Liu, [3]Roberta Berard, [4]Wesley Fidler, [5,6]Janet Pope, [7]Johannes Roth, [8]Carter Thorne, [9,10]Andrea Knight, [9,10]Linda Hiraki, [9,10]Earl Silverman, [9,10]Deborah Levy. *[1]Data and Analytic Services, ICES, Canada; [2]Institute of Health Policy, Management and Evaluation, University of Toronto, Canada; [3]Rheumatology, Children's Hospital of Western Ontario, Canada; [4]Rheumatology, St. Joseph's Hospital, Canada; [5]Rheumatology, St. Joseph's Health Care, Canada; [6]Rheumatology, University of Western Ontario, Canada; [7]Rheumatology, University of Ottawa, Canada; [8]Rheumatology, Southlake Regional Health Centre, Canada; [9]Rheumatology, The Hospital for Sick Children, Canada; [10]Paediatrics, University of Toronto, Canada*

10.1136/lupus-2023-KCR.95

Background The long-term morbidity and mortality of childhood-onset SLE (cSLE) after transition to adult care is not well-documented. The present study aims to fill this knowledge gap by analyzing outcomes in a large province-wide cSLE cohort. Our objectives were to: 1) determine all-cause and cause-specific mortality rates, adverse renal event rates, cardiovascular event and cancer rates; and 2) determine baseline characteristics associated with higher rates of transition between 3 different states: event-free, adverse renal event, and death.

Methods Clinical data were abstracted for cSLE patients diagnosed between January 1990 and March 2011 after contacting all pediatric and adult rheumatologists and nephrologists in Ontario. Data were linked to administrative healthcare databases at ICES to determine the outcomes of interest. We examined descriptive summaries of major outcomes including death, end-stage kidney disease [ESKD] requiring chronic dialysis and renal transplant, cardiovascular events and cancer. We used a multi-state Cox model to determine baseline characteristics associated with higher rates of transition between the 3 states (figure 1).



Abstract LSO-103 Figure 1

Results There were 37 deaths in a cohort of 601 patients at a mean follow-up time of 14 years. The all-cause mortality rate was 3.43 per 1000 person-years. The rates for ESKD requiring chronic dialysis and renal transplant were 5.34 and 2.16 per 1000 person-years, respectively. The rates for any type of cardiovascular event and cancer were 6.32 and 3.13 per 1000 person-years, respectively. The multi-state model indicated that the non-white ethnic group (HR, 2.15; 95% CI, 1.14–4.08) and the presence of renal involvement at baseline (HR, 2.15; 95% CI, 1.17–3.95) were significantly associated with higher rates of transition from event-free to adverse renal event.

Conclusions In this large multi-ethnic cSLE cohort, ethnicity was associated with adverse outcomes including renal events and death. Further analyses will help inform risk for adverse outcomes to improve clinical care for the highest risk patients.

Short oral presentation session 10: SLE genetics & omics

LSO-053 ELEVATED EXPRESSION OF HSA_CIRC_0000479 IN NEUTROPHILS CORRELATES WITH FEATURES OF SYSTEMIC LUPUS ERYTHEMATOSUS

Ranran Yao*, Liling Xu, Huaqun Zhu, Gong Cheng, Ziye Wang, Ruyu Liang, Wenwen Pei, Renge Liang, Yuan Jia, Hua Ye, Fanlei Hu, Yin Su. *Department of Rheumatology and Immunology, Peking University People's Hospital, China*

10.1136/lupus-2023-KCR.96

Background Accumulating evidence suggests that differentially expressed circular RNAs (circRNAs) play critical roles in immune cells of SLE patients. Hsa_circ_0000479 has been studied in the field of cancer and infection, whereas a few researches in autoimmune disease. The aim of this study was to discuss the roles and clinical value of hsa_circ_0000479 in SLE.

Methods Reverse-transcription real-time quantitative polymerase chain reaction (RT-qPCR) was conducted to detect the expressions level of hsa_circ_0000479 in PBMCs (HC: n = 8; SLE: n = 8) and in neutrophils (HC: n = 45; SLE: n = 80). The relationships between hsa_circ_0000479 levels in neutrophils and the clinical features and laboratory parameters in SLE were analyzed.