

LSO-075 PERFORMANCE OF CONVENTIONAL CARDIOVASCULAR RISK SCORES IN IDENTIFYING SUBCLINICAL ATHEROSCLEROSIS IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Background Cardiovascular disease (CVD) is a major cause of mortality in systemic lupus erythematosus (SLE). Role of conventional risk scores which look at cardiovascular events, in assessing subclinical atherosclerosis in SLE is not fully established. This study aims to assess performance of QRESEARCH database risk score-3 (QRISK3), systemic coronary risk evaluation (SCORE) and WHO (World Health Organization) CVD scores in subclinical atherosclerosis and determine clinical associations of the same.

Methods This is a single center cross-sectional analytical study which enrolled 79 patients with SLE (without CVD) and 76 healthy controls. Demography, disease activity, autoantibodies, steroid dose were noted. Subclinical atherosclerosis (carotid plaque or abnormal carotid intima media thickness cIMT) and CVD risk (QRISK3, SCORE and WHO scores) were assessed. Agreement between scores was determined using kappa coefficient.

Results Subclinical atherosclerosis was seen in 52% SLE (abnormal cIMT-47% and plaque- 8%) and 53% healthy controls (abnormal cIMT-47% and plaque 12%). Mean age of cohort was 45±6 years, mean SLE duration 96±64 months, SLEDAI 1 ±2.3 and median SLICC ACR DI of 1 (0–2). SCORE, WHO and QRISK3 had sensitivity of 0%, 10% and 28% in detecting subclinical atherosclerosis in SLE, 20%, 22% and 5% in controls while specificity was 0%, 82% and 79% in SLE and 97%, 91% and 100% in controls respectively. Kappa agreement was 0 for SCORE with other scores, between QRISK3 and WHO 68% and 15% for plaque in SLE and controls, 31% for cIMT in SLE and controls respectively. Anticardiolipin IgG (14.6% vs 2.6%) was numerically higher in SLE with atherosclerosis but not statistically significant.

Conclusions Sensitivity of conventional CVD scores in detecting subclinical atherosclerosis was very poor in SLE with QRISK3 and WHO score having good specificity. Hence, until further scores are validated, screening for subclinical atherosclerosis using carotid ultrasound remains gold standard.

LSO-106 RISK FACTORS ASSOCIATED WITH THE DEVELOPMENT OF CARDIOVASCULAR EVENTS IN A MULTIETHNIC ASIAN SYSTEMIC LUPUS ERYTHEMATOSUS COHORT

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Background Objective: To determine the risk factors associated with the development of cardiovascular events (CVE) in a multi-ethnic Asian cohort of Singapore Systemic Lupus Erythematosus (SLE) patients

Methods We analysed patients in a prospective SLE cohort Tock Seng Hospital (TTSH) in Singapore during the period 2002 to 2017. Patients without prior CVE at baseline visit (V0) who subsequently developed CVE during the follow-up were identified from this registry. Clinical information on traditional, SLE-associated, and treatment-associated risk factors were collected at baseline and at follow up. Predictors associated with development of CVE were analyzed using Chi-squared test and student's t test.

Results Out of 1000 patients recruited, 132 were excluded due to prior CVE before V0 and/or withdrew consent. Of the remaining 868 patients, 42 (4.8%) developed a CVE (16 angina/acute myocardial infarction/ischaemic heart disease, 17 cerebrovascular accidents, 11 arterial thrombosis/peripheral vascular disease) after a median (Interquartile range IQR) time of 6.18 (2.70 – 9.13) years. Of those who developed CVE, the median (IQR) age of SLE diagnosis was 34.75 (25.89 – 44.95) years and median (IQR) SLE duration was 10.66 (4.31 – 15.45) years before CVE onset. The risk factors for development of CVE ($p<0.05$) include onset of SLE at an older age, longer disease duration, longer exposure to corticosteroids, less usage of hydroxychloroquine, presence of hypertension, hyperlipidemia, antiphospholipid syndrome and lower creatinine clearance at time of enrolment into the study.

Conclusions Besides traditional risk factors, age, disease duration and corticosteroid use are predictors of CVE in this prospective study. The use of hydroxychloroquine appear to be protective.

LSO-107 ASSOCIATION OF HYPERTENSION WITH HIGHER CHRONICITY INDEX SCORES AMONG PATIENTS WITH LUPUS NEPHRITIS

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Background Kidney biopsies provide useful information to guide management in lupus nephritis (LN). Standard histopathology report includes ISN/RPS class, as well as Activity Index (AI) and Chronicity Index (CI) scores representing inflammation and fibrosis, respectively. We analyzed the clinical attributes associated with histopathologic class, AI and CI scores in patients with LN.

Methods We reviewed the medical records of LN patients seen at the University of Santo Tomas (UST, Manila Philippines) who underwent kidney biopsies from 2015 to 2022. Correlations between SLE disease characteristics at time of biopsy with ISN/RPS class, AI and CI scores were analyzed using Pearson correlation coefficient.

Results Of 44 patients (95.5% females), 13 and 29 patients had Class III and Class IV LN respectively, 1 each with co-existing Class V. Two patients had pure Class V, there were no patients in the other classes. Mean age was 25.1±10.3 years at LN diagnosis, with average disease duration of 2.4 ±3.7 years from diagnosis to biopsy. 70.5% had mild to moderate disease (SLEDAI<12) at biopsy. Average serum creatinine was 1.4±0.87 mg/dL, eGFR 71.8±37.7 mL/min, UPCR 2.6±1.4, and SLEDAI 10.6±4.4. Of renal parameters, only hypertension was associated with higher CI ($r=0.417$, $p=0.002$); although there was a trend for higher UPCR ($r=0.144$, $p=0.176$) and serum creatinine ($r=0.221$, $p=0.075$)