

SYSTEMIC LUPUS ERYTHEMATOSUS AND STATINS IN GLADEL 2.0: ARE CARDIOVASCULAR RISK PREVENTION GUIDELINES BEING FOLLOWED?



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BACKGROUND

→ Patients with systemic lupus erythematosus (SLE) have a significantly increased risk of atherosclerotic cardiovascular disease (ASCVD).

→ European Alliance of Associations for Rheumatology (EULAR) recommends a comprehensive assessment and management of cardiovascular risk (CVR), following general population guidelines¹.

→ Statin therapy plays a key role in reducing CVR and preventing ASCVD events².

METHODS

→ This was an observational and cross-sectional study of GLADEL 2.0, a multi-ethnic Latin-American SLE cohort.

» Demographics, comorbidities, medications, disease activity, and laboratory data were analyzed.

→ Statin eligibility was determined using the 2019 American College of Cardiology/American Heart Association (ACC/AHA) and the 2021 European Society of Cardiology (ESC) guidelines.

→ CVR was assessed using the ASCVD risk calculator from the ACC/AHA, Systemic Coronary Risk Evaluation 2 (SCORE2), and Pan American Health Organization (PAHO) risk scores.

→ Cohen's Kappa coefficient was used to determine inter-guideline agreement.

→ Both guidelines only consider patients ≥40 years of age as candidates for CVR prevention with statins, due to eligibility dependence on CVR scores.

» Therefore, a comparative analysis was conducted between patients above and below this age threshold.

TABLE 1. Baseline clinical characteristics, disease activity, damage index and treatments.

	TOTAL (N=1083)
Age, years, median (Q1, Q3)	35.4 (15.6, 77.5)
≥40 years, n (%)	394 (36.4)
Female, n (%)	970 (89.6)
Mestizo, n (%)	701 (64.7)
Obesity, n (%)	187 (18.5)
Disease duration, years, median (Q1, Q3)	5.6 (0.6, 61.6)
SLEDAI, median (Q1, Q3)	5 (0, 57)
SDI, median (Q1, Q3)	0 (0, 9)
HDL-c (mg/dL), median (Q1, Q3), n=504	49 (11, 102)
LDL-c (mg/dL), median (Q1, Q3), n=480	103 (28, 328)
Triglycerides (mg/dL), median (Q1, Q3), n= 557	124 (32, 619)
Diabetes, n (%)	45 (4.2)
Hypertension, n (%)	293 (27.2)
Dyslipidemia, n (%)	129 (12)
Active smoking, n (%)	54 (5.1)
Chronic kidney disease, n (%)	61 (5.6)
Acute myocardial infarction, n (%)	8 (0.7)
Statins, n (%)	155 (20.4)
Prednisone, n (%)	758 (72.5)
Hydroxychloroquine, n (%)	876 (84)

HDL-c=high-density lipoprotein cholesterol, LDL-c=low-density lipoprotein cholesterol, SLEDAI=Systemic Lupus Erythematosus Disease Activity Index, SDI=Systemic Lupus International Collaborating Clinics/American College of Rheumatology Damage Index.

TABLE 2. Comparison of clinical characteristics based on their age group.

	< 40 YEARS	≥ 40 YEARS	p VALUE
Obesity, n (%)	102 (15.8)	85 (23.3)	0.0031 ^a
Disease duration, years, median (Q1, Q3)	4.1 (0.2, 28.9)	9.9 (0.6, 61.6)	<0.0001 ^b
SLEDAI, median (Q1, Q3)	6 (0, 57)	3 (0, 38)	<0.0001 ^b
HDL-c, mg/dL, median (Q1, Q3), n=504	47 (11, 102)	52 (15, 100)	0.0003 ^b
LDL-c, mg/dL, median (Q1, Q3), n=480	105.5 (37, 241)	101 (28, 328)	0.1404 ^b
Triglycerides, mg/dL, median (Q1, Q3), n=557	123 (39, 619)	127 (32, 525)	0.4044 ^b
Diabetes, n (%)	12 (1.7)	33 (8.4)	<0.0001 ^a
Active smoking, n (%)	30 (4.5)	24 (6.2)	0.0503 ^a
Statins, n (%)	94 (19.8)	61 (21.3)	0.0510 ^a
Prednisone, n (%)	525 (78.5)	233 (61.8)	<0.0001 ²

^aChi-Square p-value. ^bKruskal-Wallis p-value. HDL-c=high-density lipoprotein cholesterol, LDL-c=low-density lipoprotein cholesterol, SLEDAI=Systemic Lupus Erythematosus Disease Activity Index.

OBJECTIVE

→ This study aimed to determine the proportion of patients with SLE eligible for statin use for primary ASCVD prevention, based on American and European CVR guidelines.

RESULTS

→ Among 1083 patients in the GLADEL 2.0 SLE cohort, only 394 (36.4%) were older than 40 years of age (Table 1).

→ ACC/AHA could only be calculated for 164 patients, PAHO for 351 patients, and SCORE2 for 181 patients.

→ Most of these patients were categorized as having a low CVR, regardless of the calculator used.

→ A total of 15 patients were indicated to receive statin therapy based on European guidelines; among these, only 5 (33%) had a previous prescription for a statin.

→ Among 50 patients eligible for statin therapy based on American guidelines, only 13 (26%) had been prescribed them.

→ Inter-guideline agreement on statin eligibility was fair (Cohen's Kappa = 0.35; 95% CI: 0.15–0.55).

→ Patients under 40 years of age were more obese and had higher disease activity compared with those older than 40 years of age (Table 2).

CONCLUSIONS

→ This study reveals a gap in the management of CVR among patients with SLE in the GLADEL 2.0 cohort, as only a small percentage are candidates for statin therapy, primarily due to the predominance of younger patients under age 40.

» Traditional CVR assessment tools fail to encompass this group, which is at an elevated risk for accelerated atherosclerosis.

→ Among eligible patients, statin prescribing rates remain low, suggesting a missed opportunity in proactive cardiovascular prevention.

→ The moderate agreement between differing guidelines highlights the inconsistency in risk assessment and management approaches for this population.

→ There is a need for tailored strategies to comprehensively evaluate and address CVR in younger patients with chronic inflammatory conditions like SLE.

→ Implementing more inclusive guidelines could enhance preventative measures and improve outcomes for patients at increased risk for ASCVD.

REFERENCES

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