Abstract PO.3.58 Table 2 Correlation between anti-dsDNA antibodies and echocardiographic parameters

	LV mass index	E/e'	LAVI	LVEF	GLS	TAPSE	PASP
Anti-dsDNA	**rs=0.332**	**rs=0.368**	rs=0.157	rs=0.002	rs=0.011	rs=-0.004	**rs=0.326**
	***p*=0.006**	***p*=0.003**	*p*=0.220	*p*=0.989	*p*=0.937	*p*=0.973	***p*=0.013**

Anti-dsDNA, anti-double stranded DNA antibodies; LV, left ventricular; E/e', the ratio between early mitral inflow velocity and mitral annular early diastolic velocity; LAVI, left atrial volume index; left ventricular ejection fraction; GLS, global longitudinal strain; TAPSE, tricuspid annular plane systolic excursion; PASP, pulmonary arterial systolic pressure.

EULAR/ACR classification criteria, aged ≥18 years. A transthoracic echocardiogram was performed by two certified echocardiographers blinded to clinical information. A blood sample was drawn to measure anti-dsDNA titers. Distribution was evaluated with the Kolmogorov-Smirnov test. Correlations between anti-dsDNA antibody titers and echocardiographic parameters were determined with Spearman's correlation coefficient (rs). A p-value < 0.05 was considered statistically significant.

Results Median age of SLE patients was 37 (24–42) years, 89.6% were women, and 20.9% had hypertension diagnosis. Demographic and clinical characteristics are shown in Table 1. We found a moderate positive correlation between anti-dsDNA antibody titers and left ventricular mass index (rs = 0.332, p = 0.006), a moderate positive correlation between anti-dsDNA antibody titers and the ratio between early mitral inflow velocity and mitral annular early diastolic velocity (E/e') (rs = 0.368, p = 0.003), and a moderate positive correlation between anti-dsDNA and pulmonary arterial systolic pressure (PASP) (rs = 0.326, p = 0.013) (Table 2).

Conclusions Higher titers of anti-dsDNA antibody are associated with higher left ventricular mass index, E/e', and PSAP, which could lead to the development of ventricular hypertrophy, diastolic dysfunction, and pulmonary hypertension respectively. The performance of a transthoracic echocardiogram may be helpful to detect early cardiovascular abnormalities in SLE patients, especially those with high anti-dsDNA antibody titers.

PO.3.59 ECHOCARDIOGRAPHIC ABNORMALITIES IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS

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Purpose Patients with systemic lupus erythematosus (SLE) have a higher risk of developing a cardiovascular event, due to multiple factors including a systemic inflammatory state, which is related to an accelerated process of atherosclerosis and endothelial damage. We aimed to compare the echocardiographic findings in patients with SLE and controls.

Methods This was a cross-sectional study. We recruited 57 patients with SLE diagnosis according to the 2019 EULAR/ACR classification criteria, aged ≥ 18 years and 57 matched controls by age (± 5 years) and gender. A transthoracic echocardiogram was performed by two certified echocardiographers blinded to clinical information. Distribution was evaluated with the Kolmogorov-Smirnov test. Comparisons were done with Chi-square test for qualitative variables and Student's T-test or Mann-Whitney´s U-test for quantitative variables. A p-value < 0.05 was considered statistically significant.

Results There were no significant differences in demographic characteristics between groups, except for hypertension, which was more prevalent in SLE patients (21.1% vs 7.0%, p = 0.031) Demographic characteristics are shown in Table 1. We found a significant difference in the left ventricular ejection fraction (LVEF) (56.50% vs 58.00%, p = 0.049), in the global longitudinal strain (GLS (-19.05% vs -21.00%, p = 0.028), in the tricuspid annular plane systolic excursion (TAPSE) (22.10 mm vs 23.56 mm, p = 0.015), in the presence of diastolic dysfunction (21.1% vs 7.0%, p = 0.031) and in the presence of mitral regurgitation (24.6% vs 10.5%, p = 0.049).

Conclusions Patients with SLE had a worse left ventricular function, evaluated by LVEF and GLS, a worse right ventricular systolic function, evaluated by TAPSE, and a higher

Abstract PO.3.59 Table 1 Demographic characteristics

	SLE patients (n=57)	Controls (n=57)	*p-value*
Age years, mean ± SD	35.31 ± 12.04	35.82 ± 10.46	0.810
Women, n (%)	51 (89.5)	51 (89.5)	1.000
HTN, n (%)	12 (21.1)	4 (7.0)	**0.031**
T2DM, n (%)	2 (3.5)	4 (7.0)	0.679
Dyslipidemia, n (%)	4 (7.0)	6 (10.5)	0.508
Obesity, n (%)	3 (5.3)	8 (14.0)	0.113
Active smoking, n (%)	8 (14.0)	3 (5.3)	0.113

SLE, systemic lupus erythematosus; HTN, hypertension; T2DM, type 2 diabetes mellitus

Abstract PO.3.59 Table 2 Echogardiographic findings

	SLE patients (n=57)	Controls (n=57)	*p-value*
Left ventricle indexed mass, g/m², median (IQR)	60.25 (48.94-77.13)	61.22 (51.80-75.84)	0.791
RWT, median (IQR)	0.35 (0.29-0.43)	0.36 (0.30-0.43)	0.986
LVEF, %, median (IQR)	56.50 (52.25-63.00)	58.00 (56.00-62.75)	**0.049**
GLS, %, median (IQR)	-19.05 (-22.00 – -16.00)	-21.00 (-22.00 – -19.00)	**0.028**
Left atrium indexed volume, ml/m², median (IQR)	26.27 (20.30-31.63)	24.86 (20.59-28.98)	0.288
TAPSE, mm, mean ± SD	22.10 ± 3.08	23.56 ± 3.00	**0.015**
Diastolic dysfunction, n (%)	12 (21.1)	4 (7.0)	**0.031**
Valvular abnormalities			
Aortic regurgitation, n (%)	3 (5.3)	0 (0.0)	0.243
Mitral regurgitation, n (%)	14 (24.6)	6 (10.5)	**0.049**
Tricuspid regurgitation, n (%)	27 (47.4)	18 (31.6)	0.085

SLE, systemic lupus erythematosus; RWT, relative wall thickness; LVEF, left ventricular ejection fraction; GLS, global circumferential strain; TAPSE, tricuspid annular plane systolic excursion

prevalence of diastolic dysfunction and mitral regurgitation, which are associated with increased risk of cardiovascular death. It is important to consider including an echocardiogram as part of the cardiovascular evaluation in patients with SLE, which may result in early detection of cardiovascular abnormalities.

PO.3.60 ASSOCIATION OF LEFT VENTRICULAR GEOMETRY ABNORMALITIES AND DISEASE ACTIVITY IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS

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Purpose Patients with systemic lupus erythematosus (SLE) have higher risk of developing a cardiovascular event than the general population, with multiple factors contributing to this increased risk, including systemic inflammation. We aimed to compare the Systemic Lupus Erythematosus Disease Activity Index (SLEDAI) and other disease characteristics of SLE patients with and without left ventricular (LV) geometry abnormalities.

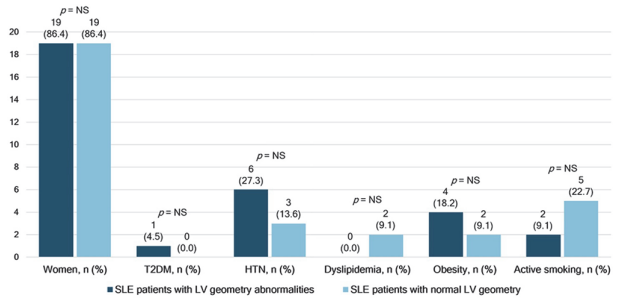
Methods This was a cross-sectional study nested of a SLE cohort. We recruited patients with SLE diagnosis according to the 2019 EULAR/ACR classification criteria, aged ≥ 18 years. A transthoracic echocardiogram was performed by two certified echocardiographers blinded to clinical information. Disease activity was assessed with SLEDAI. SLE patients with LV geometry abnormalities were included and matched by age and gender to SLE patients with normal LV geometry. Distribution was evaluated with the Kolmogorov-Smirnov test. Comparisons were performed with Chi-square or Fisher's exact test for qualitative variables, and Student's T-test or Mann-Whitney's U-test for quantitative variables. A p-value < 0.05 was considered significant.

Results A total of 44 SLE patients were included, 22 with LV geometry abnormalities and 22 with normal LV geometry. Mean age of SLE patients with LV geometry abnormalities was 35.1 ± 12.2 years, compared to 35.4 ± 9.4 years of SLE patients with normal LV geometry, p = 0.923. There were no significant differences inn demographic characteristics between both groups. Demographic characteristics are shown in Figure 1. We found that SLEDAI was significantly higher in SLE patients with LV geometry abnormalities (26.45 vs 17.33, p = 0.016). Comparisons of clinical characteristics between groups are shown in Table 1.

Abstract PO.3.60 Table 1 Comparison of disease characteristic of SLE patients with and without LV geometry abnormalities

Variables	Patients with LV geometry abnormalities (n=22)	Patients with normal LV geometry (n=22)	*p*-value
Disease duration, months, median (IQR)	60.0 (12.7-150)	72.0 (43.0-117.7)	NS
SLEDAI, median (IQR)	10.5 (4.0-15.0)	6.0 (2.0-9.0)	**0.016**
CRP, mg/dl, median (IQR)	0.52 (0.33-1.29)	0.60 (0.41-0.85)	NS
ESR, mm/h, median (IQR)	26.0 (13.2-34.2)	29.0 (8.7-58.5)	NS
ANA titers, median (IQR)	640 (160-3200)	480 (160-5120)	NS
Anti-dsDNA, median (IQR)	0 (0-160)	0 (0-200)	NS
C3, mean ± SD	94.6 ± 31.4	100.5 ± 46.1	NS
C4, median (IQR)	13.6 (9.8-14.9)	12.8 (6.4-19.8)	NS
Anti-Ro, median (IQR)	4.5 (2.0-190.5)	3.5 (2.0-82.2)	NS
Anti-La, median (IQR)	2.0 (2.0-4.0)	2.0 (2.0-3.0)	NS
Hydroxychloroquine, n (%)	20 (90.9)	18 (81.8)	NS
Glucocorticoids, n (%)	19 (86.4)	17 (77.3)	NS

SLE, systemic lupus erythematosus; LV, left ventricular; NS, not significant; SLEDAI, Systemic Lupus Erythematosus Disease Activity Index; CRP, C-reactive protein; ESR, erythrocyte sedimentation rate; ANA, antinuclear antibodies; anti-dsDNA, anti-double stranded DNA



Abstract PO.3.60 Figure 1 Comparison of demographic characteristic of SLE patients with and without LV geometry abnormalities

Conclusions SLE patients with LV geometry abnormalities had higher SLEDAI than patients with normal LV geometry. A transthoracic echocardiogram may be useful detect early cardiovascular abnormalities in SLE patients with high disease activity, and therefore should be considered as part of the cardiovascular evaluation of these patients.

PO.3.61 RENAL INVOLVEMENT AND CARDIOVASCULAR RISK IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS

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Background Systemic lupus erythematosus (SLE) is an autoimmune disease which generally affects young woman. Kidney affection appears in around 40% of patients and eventually condition the prognosis. Mortality is bimodal: initially is secondary to infections and disease activity and, subsequently, is caused by cardiovascular events (CVE).

In recent years, responsible causes of this increase of cardiovascular risk (CVR) in SLE have been evaluated. In turn, chronic kidney disease is an independent cardiovascular risk factor and is a possible outcome in lupus nephritis.

Objective To describe the prevalence of CVE in a cohort of SLE patients and to establish differences according to whether renal involvement is present.

Methods Descriptive, cross-sectional, interventional study including SLE patients according to SLICC/ACR 2012 criteria. Two distinct groups were included: SLE with non-renal affection (group 1) and SLE with renal affection (group 2). Classic CV risk factors, established CVD, concomitant diseases, disease activity, current therapy and previous therapeutic history were collected. Established CVD is defined by myocardial infarction (AMI), stroke and/or peripheral arteriopathy (PA).

Carotid ultrasound (US) was performed to each patient to measure intima-media thickness (IMT) at different levels: common carotid, carotid bulb and internal carotid; according to current US values for measuring IMT: normal <0.9 mm; increased >0.9 mm and IMT >1.3 is indicative of atheroma.