Acknowledgements This study was performed using data from the GLADEL cohort.

CE-20 LUPUS AUTO-ANTIBODIES AND CLINICAL OUTCOMES AMONG JAMAICAN SLE PATIENTS

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Background The purpose of this study is to correlate lupus antibodies with clinical features of Jamaican SLE patients and assess their predictive value.

Materials and methods The study was guided by two research questions. To answer these questions, an ex-post facto research design was used. This design was used because the subjects already had Lupus before treatment, which paved the way for a retrospective study of possible relationships and effects of the treatments to be conducted. The sample size used was (n = 136). Between May 2009 and December 2010, 136 SLE patients were tested for auto-antibodies.

Results Fifty five percent were positive for anti-ssDNA, 35% positive for anti-dsDNA, 46% for anti-Sm, 83% for anti-RNP/Sm, 76% for anti-Ro, 31% for anti-La, 30% for anti-histone and 65% for anti-chromatin. After a mean follow up of 4.5 years, the findings showed that elevated ssDNA and dsDNA in the initial samples were predictive of proteinuria, while elevated anti-Sm levels were predictive of proteinuria, low haemoglobin, lymphopenia and increased heart rate. The results of the Pearson Product Moment Correlation showed a weak to moderation relationships between ssDNA and Creartinine ($r = 0.209$, $p < 0.05$); DMARD use ($r = 0.226$, $p < 0.05$); Proteinuria ($r = 0.286$, $p < 0.01$); and Average Prednisone Dose (APD) ($r = 0.363$, $p < 0.01$). A weak to moderation relationships were also observed between dsDNA and Hb ($r = -0.218$, $p < 0.05$); Proteinuria ($r = 0.399$, $p < 0.01$); and APD ($r = 0.457$, $p < 0.01$). Anti SM correlated with Proteinuria ($r = 0.374$, $p < 0.05$) while anti RNP/SM correlated with Hb ($r = 0.304$, $p < 0.05$), and anti-Histone correlated with Proteinuria ($r = 0.461$, $p < 0.05$). The simple regression analysis conducted to examine if SM be used to predict heart rate, Hb, and Lymphocytes. The results were significant: Hb ($R^2 = 0.217$, $F = 23.843$, $p < 0.01$); Hb and APD ($R^2 = 0.262$, $F = 15.070$, $p < 0.01$); and Hb, APD and organ involvement ($R^2 = 0.305$, $F = 12.311$, $p < 0.01$).

Conclusions This retrospective study showed that elevated ssDNA and dsDNA in the initial samples were predictive of proteinuria, while elevated anti-Sm levels were predictive of proteinuria, low haemoglobin, lymphopenia and increased heart rate.

CE-21 THE PREVALENCE AND DETERMINANTS OF ANTI-DFS70 ANTIBODIES IN AN INTERNATIONAL INCEPTION COHORT OF SYSTEMIC LUPUS ERYTHEMATOSUS (SLE) PATIENTS

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Abstract CE-21 Table 1 Baseline demographic, clinical, and autoantibody profiles of anti-DFS 70 negative and positive patients and univariate and multivariate associations with anti-DFS70

	DFS-negative Mean or% n = 1056	DFS-70 positive Mean or% n = 81	Univariate model Odds ratio 95% CI:	Most informative multivariate model Odds ratio 95% CI:
Age at diagnosis, yr	35.3	33.5	0.99 (0.97,1.01)	
Female	89.9	90.1	1.03 (0.48, 2.19)	
Ethnicity				
Asian	22.1	18.5	0.80 (0.45, 1.43)	
Black	16.0	8.6	0.50 (0.22, 1.10)	
Hispanic	3.1	6.2	2.09 (0.79, 5.52)	
White	54.1	63.0	1.44 (0.90, 2.30)	
Other[1]	4.7	3.7	0.78 (0.24, 2.58)	
Post-secondary education	66.3	71.8	1.29 (0.78, 2.15)	
Current smoker	15.7	13.3	0.82 (0.41, 1.64)	
Former smoker	21.3	24.0	1.17 (0.67, 2.03)	
Alcohol, F: >10/wk; M: >15/wk	1.5	1.3	0.86 (0.11, 6.58)	
Hypertension, on meds	27.5	26.3	0.94 (0.56, 1.57)	
Nephritis[2] at enrollment	29.5	21.3	0.65 (0.37, 1.15)	
# ACR criteria	4.8	4.6	0.89 (0.71, 1.12)	
SLEDAI-2Kscore	5.2	6.0	1.03 (0.99, 1.07)	
Neurological	0.2	0.5	1.08 (0.97, 1.21)	
Mucocutaneous	1.1	1.3	1.06 (0.95, 1.18)	
Musculoskeletal	0.8	1.5	**1.24 (1.10, 1.40)**	1.25 (1.10, 1.41)
Renal	1.4	1.1	0.97 (0.89, 1.05)	
Serositis	0.1	0.0	0.58 (0.23, 1.48)	
Constitutional	0.0	0.1	1.44 (0.50, 4.16)	
Immunological	1.5	1.5	0.99 (0.86, 1.14)	
Hematological	0.1	0.1	0.60 (0.25, 1.44)	
Steroids,% ever using	80.3	80.2	1.00 (0.56, 1.76)	
Antimalarials,% ever using	73.3	77.8	1.28 (0.74, 2.19)	
Immunosuppressants,	43.0	37.0	0.78 (0.49, 1.24)	
% ever using	0.76	0		
Biologics,% ever using				
ANA	93.8	93.8	1.01 (0.40 2.59)	
DFS ANA by indirect immunofluorescence	0.7	12.3		
Anti-dsDNA	40.1	26.3	**0.53 (0.32, 0.89)**	0.53 (0.31, 0.92)
Autoantibodies				
Monospecific DFS70	0	16.0		
PCNA	6.9	8.6	1.27 (0.57, 2.87)	
Ribosomal-P	15.7	11.1	0.67 (0.33, 1.37)	
Ro52/TRIM21	35.4	27.2	0.68 (0.41, 1.13)	
SSA/Ro60	46.3	34.6	**0.61 (0.38, 0.98)**	
SSB/La	16.0	4.9	**0.27 (0.10, 0.75)**	0.25 (0.08, 0.82)
Sm	23.9	16.0	**0.61 (0.33, 1.12)**	
U1-RNP	31.5	21.0	0.58 (0.33, 1.0)	
Lupus anticoagulant	6.6	7.4	1.39 (0.81, 2.40)	
Anticardiolipin	12.5	12.3	0.98 (0.48, 2.03)	
Anti-β2 glycoprotein1	14.3	24.7	**1.96 (1.12, 3.43)**	2.15 (1.21, 3.84)

Background When found in the absence of antibodies to extractable nuclear antigens (ENA) or anti-double-stranded DNA (dsDNA) (i.e., monospecific), autoantibodies to the nuclear autoantigen dense fine speckles 70 (DFS70) are purported to rule out SLE. The reported frequency of anti-DFS70 by chemiluminescence (CIA) in SLE is low compared to healthy individuals (0–5.7% vs. 1.3–23.2%), while the frequency of monospecific anti-DFS70 in SLE is even lower at 0–0.4%. There are no studies examining the frequency of anti-DFS70 in an early inception SLE cohort. This study determined the prevalence of anti-DFS70 in a multi-national, multi-ethnic early inception SLE cohort and examined demographic, clinical, and autoantibody associations.

Materials and methods Patients fulfilling ACR Classification Criteria for SLE were enrolled in the Systemic Lupus International Collaborating Clinics (SLICC) inception cohort within 15 months of diagnosis. Demographic and clinical data were collected at enrollment. ANAs were detected by indirect immunofluorescence on HEp-2 cells (ImmunoConcepts, Sacramento) and ENAs and dsDNA by an addressable laser bead immunoassay (FIDIS Connective13, TheraDiag, Paris). Anti-DFS70 antibodies were measured by CIA (Inova Diagnostics, San Diego). The association between anti-DFS70 and baseline demographic, clinical, and autoantibody profiles was assessed using univariate and multivariate logistic regression. For the most informative model, only the remaining statistically significant predictors at the 95% CI: were included, after eliminating other potential predictors individually, starting with the least likely to be associated with the outcome.

Results 1137 patients were included; 89.9% were female and 93.8% were ANA positive (Table 1). The frequency of anti-DFS70 was 7.1% [95% CI: 5.7–8.8%]. 13 of 1137 (1.1%) [95% CI: 0.6–1.9%] were positive for anti-DFS70 only (monospecific). In univariate analysis, patients with musculoskeletal activity (based on SLEDAI items) or anti-β−2 glycoprotein-1 (anti-β2GP1) were more likely to have anti-DFS70, whereas those with anti-dsDNA, anti-SSA/Ro60, anti-SSB/La, or anti-U1RNP were less likely to have anti-DFS70. In multivariate analysis, patients with musculoskeletal activity (Odd Ratio (OR) 1.25 [95% CI: 1.10, 1.41]) or anti-β2GP1 (OR 2.15, 95% CI: 1.21, 3.84) were more likely to have anti-DFS70, while those with anti-dsDNA (OR 0.53, 95% CI: 0.31, 0.92) or anti-SSB/La (OR 0.25, 95% CI:0.08, 0.82) were less likely to have anti-DFS70.

Conclusions The prevalence of anti-DFS70 in newly diagnosed SLE patients was at the high end of the range previously published for SLE (7.1% vs. 0–5.7%) and was associated with musculoskeletal activity and anti-β2GP1. However, 'monospecific' anti-DFS70 was rare (1.1%) and is potentially useful to discriminate between ANA positive healthy individuals and SLE.

CE-22 CANCER IN SYSTEMIC LUPUS ERYTHEMATOSUS: RESULTS FROM THE SLICC INCEPTION COHORT

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Background To describe cancer incidence in the largest inception SLE cohort in the world.

Materials and methods Patients meeting ACR criteria for new-onset SLE were enrolled across 32 centres. At enrolment and