Abstract 35 Table 1 Predictors of PV in SLE patients on ISMs

Variables	Univariate analysis			Multivariate analysis			Stepwise analysis		
	OR	95% CI	P-value	OR	95% CI	P-value	OR	95% CI	P-value
				DEMOGRAPHICS					
Age	1.017	1.007–1.027	0.001	0.993	0.913–1.079	0.863			
Gender	3.5	0.727–16.848	0.118						
Caucasian ethnicity	2.833	1.117–7.186	0.028	0.356	0.02–6.229	0.479			
PPO insurance	1.727	0.822–3.630	0.149						
Education level	1.55	1.205–1.995	0.001	0.56	0.082–3.833	0.554			
				PHYSICIAN					
Primary care provider	2.24	1.398–3.589	0.001	1.734	0.004–837.506	0.861			
Volume of lupus patients seen	2.604	1.448–4.685	0.001	1.902	0.554–6.529	0.307	2.033	1.154–3.584	0.014
				LUPUS					
Number of ACR criteria met	1.15	1.056–1.253	0.001	1.061	0.471–2.39	0.886			
Duration of SLE	1.115	1.053–1.181	0	0.987	0.798–1.22	0.903			
Disease activity (SELENA-SLEDAI)	1.154	1.030–1.294	0.014	0.961	0.469–1.97	0.913			
Damage (SLICC-SDI)	2.02	1.249–3.268	0.004	1.619	0.312–8.412	0.566			
Class III-V lupus nephritis	6.333	1.874–21.402	0.003	1.049	0.021–51.942	0.981			
Receipt of steroids ever	2.071	1.319–3.252	0.002						
Steroid dose	1.034	0.994–1.076	0.099						
Current Mycophenolate Mofetil	7	2.455–19.957	0	3.028	0.141–64.874	0.479			
Current Biologic Use	3.5	1.152–10.633	0.027	1.572	0.128–19.295	0.724			

patients had been either recommended or given PV 23 in the preceding 5 years. Univariate correlates were older age, higher education, Caucasian race, having a PCP, rheumatologists SLE patient volume, greater number of ACR criteria met, longer disease duration, higher SLEDAI and SDI scores, lupus nephritis class III-V, treatment with steroids (ever), current mycophenolate mofetil or biologic use. On multivariate analysis none retained independent significance. On stepwise analysis odds of being recommended/receiving PV were twice with every increase in Rheumatologists SLE patient volume by 50.

Conclusions The volume of lupus patients seen by rheumatologists is independently associated with pneumococcal vaccination. Physician and patient education towards importance of preventive measures in SLE are needed to meet this important quality index.

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36 EVALUATION OF RELAPSE RATE AND LIFE PROGNOSIS AFTER INDUCTION THERAPY IN PROLIFERATIVE AND MEMBRANOUS LUPUS NEPHRITIS

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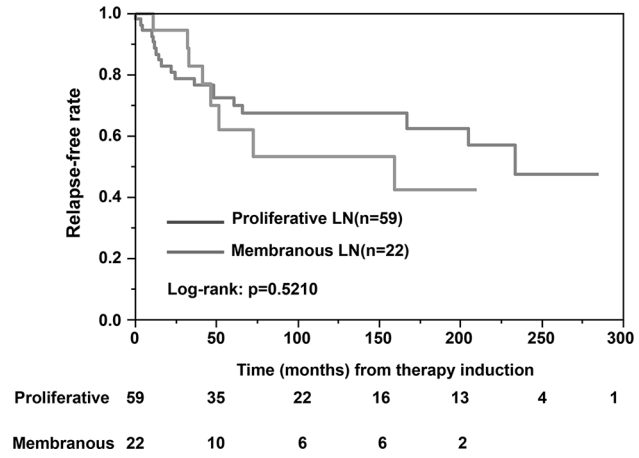
Background Systemic lupus erythematosus (SLE) is a complex autoimmune disorder with a broad spectrum of clinical and immunologic manifestations, among which lupus nephritis (LN) is the most common cause of morbidity and mortality. Here we evaluated the relapse rate and life prognosis after induction therapy in proliferative and membranous LN.

Methods One hundred fifty-one cases who underwent renal biopsy at our hospital and community hospitals from 1993 to 2016 were enrolled in this study. We retrospectively analyzed the complete response (CR) rate at 6 and 12 months after induction therapy and evaluated the predictive factors for CR, relapse rate and life prognosis in proliferative and membranous LN.

Results In 140 cases, we were able to examine the therapeutic response, relapse rate and life prognosis at 6 and 12 months after therapy was introduced. Most of the patients were female (84.3%). The median age at onset of LN was 34.0 years (interquartile range [IQR] 25.345.0 years), and the disease duration of SLE was 42 months (IQR 2.0121.0 months). The median follow-up duration after renal biopsy was 96 months (IQR 44.0168.0 months). The renal pathology of 99 (70.7%) patients was classified as ISN/RPS Class III or IV, and 41 (29.3%) patients were ISN/RPS Class V. Thirty-five patients (35.4%) in Class III or IV and 41 patients (29.3%) in Class V achieved CR at 6 months, and 50 patients (50.5%) in Class III or IV and 22 patients (53.7%) in Class V achieved CR at 12 months. Multivariate analysis showed that lower index of chronicity as assessed by the NIH histological scoring system in Class III or IV, and neutrophil infiltration and CH50 in Class V were predictive factors for achieving CR at 12 months. Kaplan-Meier analysis showed that relapse rate and life prognosis were not different between proliferative and membranous LN.

Conclusions Our results suggested that the predictive factors for CR at 12 months after induction therapy were lower index of chronicity in class III or IV and neutrophil infiltration and CH50 in Class V. In general, proliferative LN is more immunologically active than membranous LN, however there were no difference in the achieving CR at 6



Abstract 36 Figure 1 Kaplan-Meier analysis cumulative for the renal relapse-free rate in proliferative and membranous LN

and 12 months after induction therapy, the relapse free period and life prognosis between proliferative and membranous LN.We need to closely follow up of therapeutic response and life prognosis of membrane LN as well as proliferative LN.

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37 ASSOCIATION OF SMOKING STATUS AND TOTAL AND INDIVIDUAL DAMAGE INDEX IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Background Smoking is a risk factor for systemic lupus erythematosus (SLE). It has been associated with increased disease activity and decreased effectiveness of hydroxychloroquine in cutaneous lupus. The objective of the study was to determine the association between smoking status and total and individual damage items in SLE.

Methods We analyzed data from the Hopkins Lupus Cohort. Damage was recorded using the Systemic Lupus Erythematosus International Collaborating Clinics/American College of Rheumatology (SLICC/ACR) Damage Index. Fishers exact test and Wilcoxon test were used in exploratory analysis. Logistic regression was used to estimate the association between damage and smoking status (ever/never). Odds ratios and 95% confidence intervals were reported. Stratification by ethnicity was done for individual damage items that were found to be significantly associated with smoking.

Results The prevalence of ever smokers in our cohort was 36%. SLE patients who ever smoked had higher odds of total damage with higher mean total damage index scores (p<0.0001). Data

Abstract 37 Table 1 Relationship between SLICC/ACR Damage Index Items and Smoking (ever/never)

	ALL		Caucasian		African American	
Damage Item	OR (95% CI)	p-value	OR (95% CI)	p-value	OR (95% CI)	p-value
Total damage	1.73 (1.44, 2.07)	< 0.0001	1.55 (1.22, 1.97)	0.0003	1.96 (1.44, 2.66)	<0.0001
Cataract	1.50 (1.17, 1.92)	0.00122	0.96 (0.68, 1.36)	0.8176	2.26 (1.56, 3.28)	<0.0001
Scarring alopecia	2.08 (1.42, 3.06)	0.00019	1.63 (0.60, 4.45)	0.3320	2.24 (1.46, 3.47)	0.0003
Extensive scarring or panniculum other than scalp	3.37 (1.95, 5.85)	0.0001	2.57 (1.01, 7.03)	0.0522	3.68 (1.90, 7.47)	0.00017
Skin ulceration	2.76 (1.37, 5.57)	0.00465	2.03 (0.8, 5.36)	0.1370	4.45 (1.48, 16.32)	0.0121
Pulmonary hypertension	1.53 (1.15, 2.03)	0.00367	1.11 (0.70, 1.75)	0.6430	1.79 (1.21, 2.63)	0.00334
Infarction or resection of bowels	1.42 (1.12, 1.79)	0.0032	1.37 (1.03, 1.84)	0.0338	1.36 (0.90, 2.04)	0.1461
Pancreatitis	3.57 (1.07, 11.88)	0.0382	2.44 (0.68, 8.67)	0.1694	N/C	N/C
Muscle atrophy	1.80 (1.11, 2.94)	0.0183	2.62 (1.26, 5.44)	0.0099	1.09 (0.54, 2.19)	0.8210
Coronary artery disease	2.26 (1.50, 3.41)	0.0001	2.33 (1.39, 3.91)	0.0013	2.35 (1.13, 4.89)	0.0226
Myocardial Infarction	2.30 (1.29, 3.32)	<0.0001	2.17 (1.30, 3.62)	0.0032	2.22 (1.27, 3.87)	0.0051
Cardiomyopathy	1.94 (1.29, 2.93)	0.0016	1.64 (0.81, 3.30)	0.1687	2.18 (1.27, 3.74)	0.0045
Claudication	4.53 (2.17, 9.48)	<0.0001	3.86 (1.47, 1.10)	0.0060	4.91 (1.55, 15.52)	0.0068
Cerebrovascular accident	1.41 (1.08, 1.84)	0.0127	1.16 (0.80, 1.69)	0.4279	1.69 (1.13, 2.54)	0.0115
Diabetes	1.72 (1.29, 2.28)	0.0002	1.33 (0.88, 2.03)	0.1764	2.08 (1.39, 3.12)	0.0004

N/C: data are not sufficient for calculating odds ratio