among SLE patients. Further investigation is needed to fully elucidate associations between biological (unpredictable of SLE symptoms), social (informational and appraisal sources of social support), and community level (public awareness campaigns) factors influencing disease. Findings also point to the necessity of integrating community organizations, physicians, and friends and family of patients with SLE into capacity building interventions aimed at improving HRQOL.

Funding Source(s): Summer Undergraduate Research Award (Washington University in St, Louis)

15 FREQUENCY OF HYDROXYCHLOROQUINE RETINOPATHY IN THE HOPKINS LUPUS COHORT

[1]Michelle Petri*, [2]Marwa Elkhalifa, [1]Jessica Li. [1]*Johns Hopkins University School of Medicine*; [2]*Johns Hopkins University*

10.1136/lupus-2019-lsm.15

Background The Kaiser-Permanente study projected hydroxychloroquine (HCQ) retinopathy rates of 40% after 20 years of use. We have prospectively followed SLE patients in the Hopkins lupus cohort to compare.

Methods Patients in the Hopkins cohort are seen quarterly for assessment of disease activity and lupus complications. Yearly ophthalmology examinations are requested. Patients, if insurance allows, are referred to the Wilmer Retina group. Four tests are performed: OCT, ERG, MP-1 and FAF.

Results Patients had a variety of retinal testing done, with optical coherence testing most frequent. Table 1 shows the concordance of a test abnormality with the retina expert opinion.

The concordance of the test abnormality with the retina expert opinion showed the following sensitivity and specificity, respectively: OCT 93%, 84%; ERG 100%, 51%; MP1 100%, 70%; and FAF 83%, 76%.

The frequency of retinopathy increased with years of HCQ use [number of retinopathies per total patients (percent frequency)]: 5 years or less, 1/103 (0.97%); 6–10 years, 2/109 (1.83%); 11–15 years, 3/91 (3.30%); 16–20 years, 11/96 (11.46%); and 21 or more years, 6/75 (8.00%).

Conclusions In agreement with the American Academy of Ophthalmology, OCT appears to be the optimum test for yearly monitoring. The frequency of retinopathy was much lower in our prospective study than estimated by the Kaiser-Permanente study. Our data also show the need for ophthalmologists with retinopathy expertise to interpret retina testing, as screening tests are frequently abnormal due to causes other than HCQ retinopathy. Stopping HCQ based on an abnormal test without confirmation from a retinopathy expert could needlessly deprive an SLE patient of an important medication.

Funding Source(s): The Hopkins Lupus Cohort was funded by NIH Grant R01-AR069572.

Abstract 15 Table 1 Performance of retinal imaging modalities relative to expert diagnosis

Test	Retinopathy N (%)	No Retinopathy N (%)
Ocular Coherence Tomography (OCT)		
Abnormal	25 (93%)	133 (16%)
Normal	2 (7%)	721 (84%)
Total	27	854
Electroretinogram (ERG)		
Abnormal	15 (100%)	195 (49%)
Normal	0 (0%)	201 (51%)
Total	15	396
Microperimetry (MP1)		
Abnormal	17 (100%)	144 (30%)
Normal	0 (0%)	331 (70%)
Total	17	475
Fundal Autoflourescence (FAF)		
Abnormal	19 (83%)	165 (24%)
Normal	4 (17%)	536 (76%)
Total	23	701

16 HYDROXYCHLOROQUINE BLOOD LEVELS PREDICT RETINOPATHY IN SLE

[1]Michelle Petri*, [1]Jessica Li, [2]Marwa Elkhalifa, [1]Daniel Goldman. [1]*Johns Hopkins University School of Medicine*; [2]*Johns Hopkins University*

10.1136/lupus-2019-lsm.16

Background Hydroxychloroquine (HCQ) retinopathy after 10 years or more of use is more frequent than previously appreciated. This led to new ophthalmology guidelines that

Abstract 16 Table 1 Risk of HCQ retinal toxicity (univariate)

	No n (%)	Yes n (%)	p	P for Trend
Characteristic				
Sex			0.1029	
Female	475 (96.2)	19 (3.8)		
Male	39 (90.7)	4 (9.3)		
Ethnicity			0.3804	
White	238 (94.4)	14 (5.6)		
Black	215 (96.4)	8 (3.6)		
Other	61 (98.4)	1 (1.6)		
Age			<0.0001	<0.0001
<45	215 (99.5)	1 (0.5)		
45–59	175 (95.6)	8 (4.4)		
60+	124 (89.9)	14 (10.1)		
HCQ max			0.0340	0.0143
1 (0 to 1182)	161 (98.8)	2 (1.2)		
2 (1183 to 1752)	157 (95.2)	8 (4.8)		
3 (1753 to 6281)	153 (93.3)	11 (6.7)		
HCQ duration			0.0006	0.0002
1 (0 to 8 years)	158 (98.8)	2 (1.2)		
2 (9 to 15 years)	139 (97.2)	4 (2.8)		
3 (16 to 48 years)	154 (90.1)	17 (9.9)		
BMI			0.1701	0.0160
<20	50 (98.0)	1 (2.0)		
20–25	171 (97.7)	4 (2.3)		
25–30	159 (95.2)	8 (4.8)		
30–35	76 (95.0)	4 (5.0)		
35+	58 (90.6)	6 (9.4)		
HTN Ever			0.0020	
Yes	276 (93.2)	20 (6.8)		
No	238 (98.8)	3 (1.2)		