health, emotional health and fatigue) remained associated. These analyses are depicted in table 1.

Conclusion: Age at diagnosis is negatively associated with fatigue; HRQoL domains like physical health, emotional health and fatigue are positively associated with fatigue.

Table 1: Factors associated with fatigue in systemic lupus erythematosus patients. Univariable and multivariable analyses.

	Univariable analysis		Multivariable analysis	
	B (SE)	p value	B (SE)	p value
Age at diagnosis, years	-0.30 (0.06)	<0.001	-0.08 (0.04)	0.034
Gender, female	-4.99 (3.05)	0.102		
Socioeconomic status				
Low/medium low	-6.88 (2.60)	0.008		
Medium	-2.81 (1.76)	0.110		
High/medium high	Ref.			
Disease duration, years	0.23 (0.10)	0.025		
SLEDAI	0.04 (0.23)	0.850		
SDI	-0.80 (0.56)	0.150		
Fibromyalgia	-4.51 (3.17)	0.155		
Physical health	0.33 (0.02)	<0.001	0.14 (0.04)	<0.001
Pain	0.27 (0.02)	<0.001		
Planning	0.26 (0.02)	<0.001		
Intimate relationship	0.14 (0.02)	<0.001		
Burden to others	0.19 (0.02)	<0.001		
Emotional health	0.27 (0.02)	<0.001	0.08 (0.02)	0.001
Body image	0.15 (0.02)	<0.001		
Fatigue	0.30 (0.02)	<0.001	0.13 (0.03)	<0.001
Prednisone daily dose, mg/d	-0.15 (0.21)	0.490		
Antimalarial use				
Present	1.85 (4.11)	0.653		
Past	-0.36 (4.93)	0.942		
Never	Ref.			
Immunosuppressive drugs use				
Present	1.01 (2.04)	0.622		
Past	1.35 (2.51)	0.592		
Never	Ref.			

SE: Standard error.

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AB0506 MICRORNA A POTENTIAL MARKER OF LUPUS ACTIVITY IN AN EGYPTIAN LUPUS COHORT

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Background: MicroRNAs play central roles in different stages of cellular activity, as well as contribute extensively to multifaceted aspects of systemic lupus erythematosus (SLE) pathogenesis. Screening from approximately a thousand human miRNAs, studies have concluded that their dysfunction has been related to the development and activity of diseases.⁽¹⁾ In addition, The expression levels of miRNAs in serum are stable, reproducible, and consistent. Thus, testing serum microRNA sequence provide novel biomarkers and potential therapeutic strategies in SLE patients.⁽²⁾

Objectives: To study the role of micro-RNA-142-3p expression in SLE in an Egyptian cohort and its role as a potential biomarker of lupus activity.

Methods: Expression of microRNA-142-3p extracted from peripheral blood mono-nuclear cells determined using quantitative reverse transcription-polymerase chain reaction assay. A total of 60 plasma samples were obtained from 30 SLE patients without clinical and laboratory evidence of lupus nephritis (group A) and 30 SLE patients with clinical and laboratory evidence of lupus nephritis confirmed by renal biopsy (group B).

Results: We found a significant correlation between micro-RNA-142-3p expression levels and serum level of anti ds-DNA in both group A

(p=0.007) and group B (p=0.019). We also found no significant correlation between micro-RNA-142-3p expression levels and C3 (p=0.399) & C4 (p=0.375) in group A, while there was a significant correlation in group B with both C3 (P=0.005) and C4 (P=0.002). In addition to, We demonstrated a significant correlation between micro-RNA-142-3p expression levels and SLEDAI score in both group A (P=0.001) and group B (P=0.007).

Conclusion: The expression level of micro-RNA-142-3p could be considered a potential activity marker in SLE patients with and without lupus nephritis.

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AB0507 HEARING LOSS IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: Systemic lupus erythematosus(SLE) is a systemic disease that may affect the inner ear.

Objectives: To study hearing function in SLE and its possible association with clinical and serological profile as well as with antimalarial use.

Methods: Cross sectional study of 84 individuals(43 SLE patients and 41 controls) with audiometry and impedanciometry tests. Epidemiological, clinical, serological and treatment profile of SLE patients were extracted from the charts.

Results: SLE patients had more sensorineural hearing loss than controls (23.2% vs 0; p=0.001). The hearing loss was seen at 250 Hz, 500 Hz, 1000 Hz and 4000 Hz. No bone conduction impairment was observed. Serological and clinical profile in patients with and without hearing loss was the same (all p=ns). Patients on antimalarial had the same prevalence of hearing loss than those not using it but at 8.000 Hz, antimalarial non-users performed worse than users(p=0.03).

Conclusion: There is a high prevalence of hearing loss in SLE that is not affected by disease characteristics neither by antimalarial use.

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TABLE 1. Comparison of median auditory perception(in decibels) according to the studied frequency of the sound, speech recognition threshold and tympanometry between SLE patients and controls

	SLE patients (86 ears)	Controls (82 ears)	p
MAC	8.75 (5.00-13.75)	10.00 (5.93-12.50)	0.54
AC 250 Hz	10.00 (5.00-15.00)	15.00 (10.00-20.00)	< 0.0001
AC 500 Hz	10.00 (5.00-10.00)	12.50 (5.00-20.00)	< 0.0001
AC 1.000 Hz	5.00 (0-10.00)	5.00 (5.00-15.00)	0.03
AC 2.000 Hz	5.00 (0-15.00)	10.00 (5.00-15.00)	0.65
AC 3.000 Hz	10.00 (5.00-15.00)	10.00 (5.00-15.00)	0.40
AC 4.000 Hz	15.00 (5.00-20.00)	10.00 (5.00-15.00)	0.002
AC 6.000 Hz	15.00 (8.75-25.00)	15.00 (10.00-25.00)	0.37
AC 8.000 Hz	15.00 (10.00-30.00)	10.00 (8.75-15.00)	0.09
SRT (%)	96.0 (96.0-100.0)	100.0 (100.0-100.0)	< 0.0001
TIMP	0 (0-0)	0 (0-0)	0.99

MAC= mean air conduction; Hz=Hertz, SRT= speech recognition threshold; TIMP= tympanometry.

TABLE 2. Comparison of clinical data, auditory perception (in decibels) according to the studied frequency of the sound, speech recognition threshold and tympanometry in SLE patients using and not using antimalarials

	With antimalarials N= 74 ears	Without antimalarials N=12 ears	P
Mean Age (years) (SD)	46.4±12.7	40.9±13.9	0.22
Median Disease duration (years)	8.50 (5.00-14.25)	12.00 (8.25-21.25)	0.19
MAC	8.75 (5.00-13.75)	8.75 (5.31-13.44)	0.63
AC 250 Hz	10.00 (5.00-18.75)	10.00 (5.00-15.00)	0.81
AC 500 Hz	10.00 (5.00-10.00)	7.50 (5.00-15.00)	0.63
AC 1.000 Hz	5.00 (0-10.00)	2.50 (0-10.00)	0.47
AC 2.000 Hz	5.00 (3.75-15.00)	10.00 (0-15.0)	0.64
AC 3.000 Hz	10.00 (5.00-15.00)	12.50 (5.00-18.75)	0.43
AC 4.000 Hz	10.00 (5.00-20.00)	15.00 (7.50-20.00)	0.39
AC 6.000 Hz	12.50 (5.00-21.25)	20.00 (15.00-25.00)	0.07
AC 8.000 Hz	10.00 (8.75-25.00)	22.50 (16.25-33.75)	0.03
SRT (%)	96.00 (96.00-100.00)	96.00 (96.00-100.00)	0.50
TIMP	0 (0-0)	0 (0-0)	0.99
Tinnitus	15/37 (40.5%)	4/6 (66.6%)	0.38
Subjective hearing loss	10/37 (27.0%)	1/6 (16.6%)	1.00
Vertigo	4/37 (10.8%)	2/6 (33.3%)	0.18

Between parenthesis - interquartile rate; n= number; AC= airway conduction; MAC= mean airway conduction; SRT= speech recognition threshold; TIMP= tympanometry.

Disclosure of Interests: None declared

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AB0508 SCHIRMER TEST, VAN BIJSTERVELD, OSS, AND BREAK-UP TIME TEST IN PRIMARY SJÖGREN'S SYNDROME

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Background: Primary Sjögren's syndrome (pSS) is an autoimmune disease characterized by lymphocytic infiltration of exocrine glands and other organs, resulting in dry eye, dry mouth, and systemic findings. [1]

Objectives: The American College of Rheumatology/AECG group diagnostic criteria for pSS have included three items related to ocular involvement: The Schirmer test type 1, van Bijsterveld score, and Ocular Staining Score (OSS). They are time-consuming and employ costly dyes and instruments. In this context, we analyzed 66 patients with pSS to ascertain correlation between these tests and assess the possibility of streamlining ophthalmologic examination.

Methods: Sixty-six patients (180 eyes) from the Federal University of Sao Paulo outpatient cornea clinic were analyzed prospectively from 2017 to 2018. Those with suspicion of pSS were tested according to the 2016 ACR-EULAR diagnostic criteria. A protocol consisting of the Schirmer, tear-film break-up time (TBUT), van Bijsterveld, and OSS tests was applied to all patients by a cornea specialist. Results were analyzed for correlation and interrater reliability using the kappa coefficient.

Results: Of the 66 patients, 64 were female; 36 were white; median age was 53.3 (11.3) years. The Schirmer I test was done in 177 eyes, it was positive in 57.6%. TBUT was tested in 175 eyes and was positive in 96%. The van Bijsterveld score was done in 128 eyes and was positive in 61.7%. The OSS was done in 177 eyes and was positive in 68.9%. All four tests could be performed in 128 eyes. The results were confirmed at the same proportions. Correlation between tests was then calculated through the kappa coefficient (Table 1).

Overall agreement was weak ($\kappa = 0.340$, $p < 0.001$). Agreement between TBUT and other tests was particularly poor ($\kappa = 0.112-0.144$). On the other hand, good agreement was observed between the van Bijsterveld score and OSS ($\kappa = 0.781$, $p < 0.001$). Overall and pairwise kappa coefficients are illustrated in Figure 1.

Conclusion: Schirmer's test without anesthesia has been part of the AECG diagnostic criteria for pSS since 1989. [2].

Our study demonstrates the low sensitivity of the Schirmer I test and the possibility of removing it from the diagnostic criteria. Limitations include our small sample size and lack of comparison group. We hope that, in future, use of objective tests for pSS will become routine ophthalmology practice, reducing costs and facilitating diagnosis.

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Figure 1. – Overall and pairwise kappa coefficients

Table 1. – Kappa coefficients for classification of primary Sjögren's syndrome

	Kappa	Standard Error	z	p	Observed agreement	Expected agreement
Pairwise comparison	0.340	0.036	9.42	<0.001	-	-
Schirmer I x Break-Up Time	0.112	0.041	2.76	0.003	63.28%	58.64%
Schirmer I x Van Bijsterveld	0.428	0.088	4.85	<0.001	72.66%	52.20%
Schirmer I x OSS	0.469	0.088	5.35	<0.001	75.00%	52.93%
Break-Up Time x Van Bijsterveld	0.123	0.043	2.90	0.002	65.63%	60.80%
Break-Up Time x OSS	0.144	0.046	3.15	0.001	69.53%	64.40%
Van Bijsterveld x OSS	0.781	0.088	8.87	<0.001	89.84%	53.66%

Disclosure of Interests: None declared

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AB0509 PREVALENCE AND INCIDENCE OF SJÖGREN'S SYNDROME AMONG PATIENTS WITH RHEUMATOID ARTHRITIS IN REAL-WORLD COMMUNITY PRACTICE SETTINGS

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Background: Sjögren's syndrome (SS) is a rheumatic disease that may coexist with RA, and is often considered a common extra-articular manifestation of RA. However, few studies have examined the prevalence and incidence of SS in patients with RA in real-world community practice settings.

Objectives: To estimate the prevalence and incidence of SS in patients with RA, and to summarise the characteristics of patients with SS associated with RA compared with those of patients with RA alone.

Methods: We analysed data from 1 Jan 2014 to 30 Jun 2018 in a large rheumatology database in the USA, which provides electronic medical record data from 120 community-based rheumatology providers. Adult patients with ≥ 2 RA diagnoses were identified from 1 Jan 2015 to 30 Jun 2018 (index period). The baseline period was from 1 Jan 2014 to 31 Dec 2014. Among patients with RA, we identified patients with ≥ 2 SS diagnoses in the index period (prevalent SS patients) and patients with ≥ 2 SS diagnoses in the index period who had not been diagnosed with SS in the baseline period (incident SS patients). Crude and age- and sex-standardised prevalence and incidence of SS were calculated among patients with RA. Characteristics of prevalent SS patients and patients with RA alone (as a control group) were summarised.

Results: A total of 53,156 patients with RA were identified. Among them, we identified 2451 prevalent SS patients and 1450 incident SS patients. The age- and sex-standardised prevalence of SS in patients with RA was 3.48%, and the age- and sex-standardised incidence rate was 0.66 per 100 patient-years. Female patients had a higher prevalence (5.23%