Regarding pattern of lung involvement, 9 (52.9%) pts had ILD, 6 (35.3%) isolated bronchiectasis and 2 (11.8%) follicular bronchiolitis. In ILD pts, non-specific interstitial pneumonia (NSIP) was documented in 6 pts, lymphocytic interstitial pneumonia in 2 and 1 pt had unclassifiable ILD pattern with lymphocytic alveolitis in bronchoalveolar lavage. One of the pts with NSIP later developed radiographic characteristics suggestive of usual interstitial pneumonia (UIP).

Six ILD pts were treated with immunosuppressive drugs. One received cyclophosphamide (CYC), 2 azathioprine (AZA) and 4 mycophenolate mofetil (MMF). From pts receiving MMF, 1 was previously treated with CYC as induction treatment and the other with AZA, but with inefficacy. Rituximab (RTX) was given to 1 pt with refractory arthritis and new ILD onset. After 11 years on RTX (total 10 cycles) the pt complained of persistent dyspnoea and fatigue on minor exertion (cardiac causes excluded), with onset of subtle honeycombing in high resolution computed tomography. At this point pirfenidone was added to RTX, with clinical improvement. Detailed lung function and imaging evolution of pSS-ILD pts is shown in table 2.

Table 2 – Evolution of patients with interstitial lung disease treated with immunosuppressive drugs

Patient	Current immunosuppression	Baseline		6-12 months		≥ 24 months		Lung CT 6-12 months	Lung CT ≥ 24 months
		FVC (%)	DLCO (%)	FVC (%)	DLCO (%)	FVC (%)	DLCO (%)		
1†	AZA	52.8	27.7	42.1	7.4	35.2	Unable to perform	Progression, assuming UIP pattern	Stable
2	MMF	87.6	69.3	95	72.7	-	-	-	-
3	MMF	37.1	Unable to perform	45	Unable to perform	-	-	Progression	-
4	MMF	98.6	84.7	112.2	90	-	-	Improvement	-
5	MMF	76.7	39.6	*	*	*	*	*	*
6	RTX	45.8	40.9	-	-	46.5	36.7	Stable	Progression

† Patient 1 died due to lung disease progression, after 3 years on AZA and before there was experience with anti-fibrotic drugs

* This patient is under treatment for less than 6 months and has no follow-up assessment yet

Legend: AZA – azathioprine; MMF – mycophenolate mofetil; RTX – rituximab; FVC – forced vital capacity; DLCO – gas transfer; CT – computed tomography; UIP – usual interstitial pneumonia

Conclusion: Lung involvement occurred in 12.4% of our cohort and was associated with older disease at pSS diagnosis and presence of constitutional involvement.

Small airways disease and ILD had nearly the same prevalence and in the ILD sub-group, NSIP was the commonest pattern. Despite the small number of ILD pts receiving immunosuppression, these drugs seemed to be associated with disease stabilization in most of them. Only 1 pt with UIP pattern had disease progression and eventually died.

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AB0504

CLINICOPATHOLOGICAL CHARACTERISTICS AS POSSIBLE PREDICTOR OF RENAL OUTCOME IN PATIENTS WITH ACTIVE LUPUS NEPHRITIS FOLLOWING THE INDUCTION OF REMISSION PHASE

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Background: Systemic lupus erythematosus is polygenic autoimmune rheumatic disease with heterogeneous manifestations. Lupus patients with nephritis signal represents management challenge. With current induction and maintenance therapy the risk of developing lupus nephritis related ESRD at five, ten and fifteen years remains 11,17 and 22% for the last decade

Objectives: To study clinicopathological characteristics of lupus nephritis patients as well as short term renal outcome following induction of remission attempts.

Methods: Retrospective, prospective observational study. We enrolled all patients with suspected active Lupus nephritis attending Dubai Hospital Rheumatology services. Data collected during outpatient, inpatient consultation using medical electronic system for all patients newly diagnosed to have lupus with renal involvement or patients who had nephritic or nephrotic flare from June 2016 till December 2018

Results: Of 71 patients included during the study period, mean age was 36.4 years, 93% were female while 7% were males. 56 Out of 71 were Arab (78%) while the rest 15 out of 71 (22%) from non-Arab ethnicity. 84% (60/71) patients suspected to have active lupus nephritis underwent ultrasound guided kidney biopsy unless contra-indicated or the patient refused to sign the consent for the procedure. The commonest histopathological class according ISN/RPS 2003 Classification was class III. Induction of remission attempted with Mycophenolate Mofetil in 29% of patients (21/71). Around (8/71) received Rituximab regimen while more than 50% of the patients (39/71) received Cyclophosphamide Euro lupus protocol. At 6 months assessment following induction of remission 40/71

showed complete response and 26/71 responded partially, 5/71 required dialysis 2 of them required short term dialysis. On the other hand 3/71 (4%) progressed to end stage renal disease. Among patients who developed end stage renal disease there was signal of less favorable prognostic indicators such comorbid condition with possible glomerulopathy complications such as diabetes mellitus and hypertension. Moreover 2 of the 3 patients end with long term dialysis observed to have positive Anti-phospholipid antibody status which may reflect co-existing thrombotic angiopathy. Among biopsy criteria predicting worse outcome was the presence of Cellular crescents on background of Class III or IV lupus nephritis.

Conclusion: Our study is unique in the region, characterizing high risk group of SLE patients. The signal of co morbid conditions such as hypertension, diabetes mellitus and antiphospholipid antibody positivity as well as class III/IV Lupus nephritis with cellular crescents as predictor of worse renal outcome raise the unmet need for further study with large sample involving more than single center to determine clinical, serological and histopathological predictors of renal outcome in short term as well as long term with the available immune suppressive regimens.

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AB0505

AGE AT DIAGNOSIS AND HEALTH-RELATED QUALITY OF LIFE ARE ASSOCIATED WITH FATIGUE IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS

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Background: Fatigue can be defined as feeling tired and exhausted and lacking energy (1). It is associated with a poor quality of life; 53 to 80% of SLE patients identify fatigue as their main symptom (2)

Objectives: To define factors associated with fatigue in Mestizo patients with Systemic Lupus Erythematosus (SLE).

Methods: This is a cross-sectional study of SLE patients from a single center cohort. Visits were performed every six months. For these analyses, the first visit between October 2017 and December 2018 was included. Demographic and clinical characteristics as well as treatment were recorded at every visit. Socioeconomic status (SES) was defined using the Graffar's method (ref). Fatigue was ascertained with the Functional Assessment of Chronic Illness Therapy-Fatigue (FACIT-FT), Health-Related Quality of Life (HRQoL) with the LupusQoL, disease activity with the Systemic Lupus Erythematosus Disease Activity Index –2K (SLEDAI-2K), and damage with the Systemic Lupus International Collaborating Clinics (SLICC)/American College of Rheumatology (ACR) damage index (SDI). Prednisone use was recorded as current daily dose. Immunosuppressive drugs and antimalarial use was recorded as current, past or never. Univariable and multivariable analyses were performed using linear regression models. For the multivariable analyses, model selection was based on backward elimination.

Results: Two hundred and twenty-six patients were evaluated. The mean (SD) age at diagnosis was 35.6 (13.1) years, 211 (93.4%) were female; and disease duration was 11.0 (7.3) years. The mean SLEDAI and SDI were 2.4 (3.5) and 1.3 (1.5), respectively. The mean FACIT-Fatigue was 33.1 (10.8). In the univariable analyses, FACIT-Fatigue correlated with age at diagnosis, SES, disease duration and all the HRQoL domains like physical health, pain, planning, intimate relationships, burden to others, emotional health, body image and fatigue. On the multivariable analysis, however, only age at diagnosis; and some domains of HRQoL (physical

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.