Abstract 353 Table 1 Sociodemographic and clinical characteristics of the SLE patients

Characteristic		Median	IQR
Age (years)		47	23
Educational level		11	7
		%	
Gender (Female)		92,1	
Area	Urban	91	
Ocupation	Student	5,6	
	Unemployed	3,6	
	House maid	41,2	
	Retired	10,6	
	Intellectual	10,3	
	Manual	20,1	
	Mixed occupation	8,6	
Socioeconomical status	1	11,5	
	2	36,8	
	3	36,4	
	4	10,8	
	5 o 6	4,5	
Clinical manifestations			
Age at onset	Early (<20 years)	16,3	
	Moderate (20-50 years)	66,6	
	Late (>50 years)	17,1	
Cardiovascular disease	Any cause	31,6	
	Arterial hypertension	28,6	
	Thrombosis	2,9	
	Cerebrovascular disease	1,9	
	Coronary artery disease	1,2	
Organ damage		34,9	
Polyautoimmunity		11,2	
Acute activity by SLEDAI		11,1	
6-months clinical remission		75,2	

Abstract 353 Table 2 Association between coffee consumption and clinical outcomes in SLE patients (N=731)

Characteristic		Coffee consumption		Chi-square	P value	OR	95% CI
		Yes	No				
Age at onset	Early	73	46	5,25	0,072	**0,57**	**0,33-0,97**
	Moderate	346	141			0,88	0,56-1,37
	Late	92	33			1	-
Cardiovascular disease	Yes	148	83	5,46	0,019*	**0,67**	**0,48-0,93**
	No	363	137			1	-
Organ damage	Yes	184	71	0,94	0,335	1,18	0,84-1,65
	No	327	149			1	-
Polyautoimmunity	Yes	58	24	0,03	0,86	1,04	0,63-1,73
	No	453	196			1	-
Acute activity by SLEDAI	Yes	52	29	1,41	0,23	0,74	0,46-1,21
	No	459	191			1	-
6-months clinical remission	Yes	396	154	4,64	0,031*	**1,48**	**1,03-2,10**
	No	115	66			1	-

methodology of the study and its limitations, it is not possible to conclude a causal relationship. More studies must be done to clarify the influence of coffee in autoinmune disease.

354 A COMPARATIVE ANALYSIS OF GUT MICROBIOTA BETWEEN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS AND NON-AUTOIMMUNE CONTROLS: A SINGLE CENTRECENTER COHORT EXPERIENCE

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Background and aims Systemic lupus erythematosus (SLE) is the prototypical systemic autoimmune disease, and is characterised by hyperactive immune cells and antibody production. Change in gut microbiota is associated with autoimmune diseases in animal and humans models.We hypothesised that similar changes would be seen in patients with lupus, and may be future therapeutic targets.

Methods 21 patients with SLE and 12 controls with no autoimmune disease were enrolled. Stool samples obtained, homogenised and the cells lysed with 0.1 mm sterile zirconia beads and a bead-beater. The DNA was extracted; V4 region of 16S rRNA gene was amplified using PCR. The purified amplicons were sequenced bi-directionally. High-quality reads with Phred score of ≥20 were obtained by using Quantitative Insights into Microbial Ecology. Chimeric sequences were identified with USEARCH and removed from analysis. Taxonomy was

Abstract 354 Table 1

Variables	Classification	Number
Race	AA	4
	Caucasian	10
Age (years)		42.4 (21-66)
BMI	<25	2
	25-29.9	2
	30-39.9	7
	>40	3
Medication	Hydroxychloroquine	13
	MMF	9
	Azathioprine	2
	Belimumab	5
	Methotreaxte	1
	Tarcolimus	1

Abstract 354 Table 2

Unregulated Bacteria	P value	Down regulated Bacteria	P value
Phylum: Proteobacteria	0.019	Family: Christensenellaceae	0.023
Family: Lachnospiraceae	0.001	Family: Odoribacteraceae	0.008
Genus: Blautia	0.005	Family: Peptococcaceae	0.03
Genus: Dorea	0.032	Family: Rikenellaceae	0.005
Genus: Ruminococcus	0.006		
Family: Erysipelotrichaceae	0.04		

assigned by using a naive Bayes classifier trained with the Greengenes taxonomy.

Results In the SLE patients, Proteobacteria phylum was up regulated. The Lachnospiraceae family was not significantly different based on 16S rRNA sequencing. It was however significantly up regulated on quantitative PCR analysis.

The genera of Blautia, Dorea and, Ruminococcus in the Lachnospiraceae family were also significantly up regulated in the lupus.

The bacterial family of Erysipelotrichaceae was also significantly up regulated.

Rikenellaceae, Odoribacteraceae, Christensenellaceae and Peptococcaceae families were all significantly down regulated in Lupus.

Conclusions There were significant changes in gut microbiota between SLE and the control patients. The findings are similar to those reported in animal and human models with lupus and other autoimmune diseases.

355 A COMPARATIVE STUDY OF VITAMIN D LEVELS IN AUTOIMMUNE AND NON-AUTOIMMUNE DISEASE

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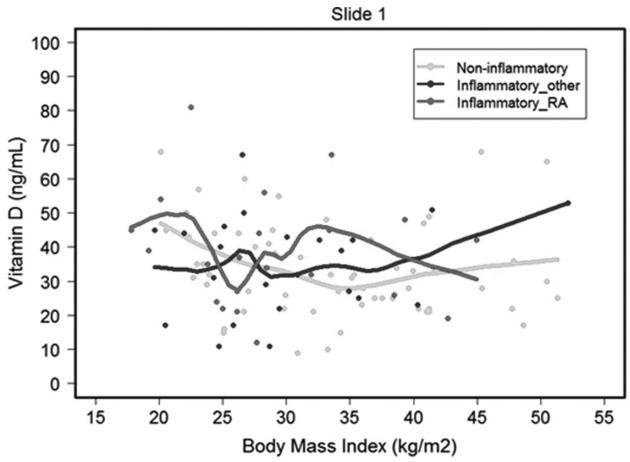
Abstract 355 Table 1

	Non-inflammatory	Inflammatory	p-value
N	65	50	
Age	52.2±13.0	52.3±14.5	0.941
BMI (kg/m^2)	33.7±8.6	29.6±7.5	0.012
Female Gender	86.2%	80.0%	0.378
Caucasian	84.6%	84.0%	0.928
Latest Vitamin D	35.1±14.7	37.5±16.2	0.402
<20 ng/mL	9.2%	12.0%	
20-29 ng/mL	32.3%	22.0%	0.461
>=30ng/mL	58.5%	66.0%	
Vitamin D Supplement	52.3%	56.3%	0.678



Abstract 355 Figure 1

Background and aims Studies have shown an association between levels of Vitamin D and incidence and activity of autoimmune diseases. The purpose of this study was to examine correlation between vitamin D levels in RA and SLE patients compared to controls without autoimmune disease. Our hypothesis was that low vitamin D is ubiquitous in the general population and not related to specific autoimmune disease.

Methods This was a retrospective, single centre, hospital-affiliated outpatient cohort study. A systematic review of the electronic medical record generated a patient list with the diagnosis codes for RA, SLE, osteoarthritis (OA) and Fibromyalgia. Vitamin D levels were characterised as follows: deficiency (<20 ng/mL), insufficiency (20–30 ng/mL) and normal (>30 ng/ml). A total of 115 patents were included, and, SAS9.3 statistical tool was used to analyse the data.

Results A total of 23 patients had RA, 27 had SLE and 65 had non-inflammatory disease (OA and fibromyalgia). There was no statistically significant difference in the vitamin D levels in RA, SLE versus the non-inflammatory group.

We did note of interest that in the RA group, a body mass index (BMI) above 35 had lower Vitamin D levels, as opposed to the lupus and control group groups.

Conclusions In our study, we found no relationship between the levels of vitamin D levels and the presence or absence of autoimmune disease. We did find a relationship between the BMI and Vitamin D levels, and this will need further study.