compared by the log-rank test, the positive and negative predictive values, sensitivity (Se) and specificity (Sp), as well as the PSEP index of the model intrinsic prognostic value⁶.

Results: ROC analysis identified low miR200b-5p levels as the better prognostic tool from the other multifactorial models. Its predictive value was further supported by the other analyses (including PSEP index), where it ranked among the two best models, whereas it had the better combination of sensitivity and specificity (Table).

Table. Comparison of models predicting NHL development in SS

	ROC		KM		PPV	NPV	PSEP	Se	Sp
	AUC	p value	p value	p value					
Ioannidis et al	0.748	0.006	0.006	0.006	0.57	0.94	0.51	0.94	0.56
Baimpa et al, model 1	0.775	0.002	0.002	0.003	0.63	0.90	0.53	0.88	0.67
Baimpa et al, model 2	0.687	0.038	0.038	0.006	0.88	0.72	0.60	0.41	0.96
Baimpa et al, model 3	0.647	0.104	0.104	0.008	1.00	0.69	0.69	0.29	1.00
Quartuccio et al	0.794	0.001	0.001	≤0.0001	1.00	0.79	0.79	0.59	1.00
Fragkioudaki et al	0.830	≤0.0001	≤0.0001	≤0.0001	0.71	0.91	0.63	0.88	0.78
Low miR200b-5p levels	0.863	≤0.0001	≤0.0001	≤0.0001	0.87	0.86	0.73	0.76	0.93

Conclusion: Low miR200b-5p levels associated with the incidence of NHL in SS, exhibiting consistently higher values than the other multifactorial models; however, larger cohorts are required to verify its statistical and clinical significance.

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AB0528

ANALYSIS OF THE CASES OF 33 SLE PATIENTS THAT NECESSITATED CARDIOVASCULAR SURGERY

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Background: In SLE, immune complexes are overproduced and deposited in tissues where they ultimately cause damage. The immunocomplexes, which are deposited in the myocardium, blood vessels and atrioventricular valves, have been suggested to cause damage to the relevant tissues, but it remains unclear in which cases tissue damage progresses to a point that surgical treatment is required.

Objectives: The purpose of our study was to classify heart diseases into valvular heart diseases (V), ischemic heart diseases (I) and aortic aneurysms (A), to compare each class in terms of the correlation between the activity of SLE and the progression and exacerbation of heart disease, and in the future, to use the features of the correlations to carry out the prevention and treatment of heart diseases complicating SLE.

Methods: Between the years 2012 and 2018, a total of 2852 patients diagnosed with SLE were admitted to our hospital, and 33 had heart surgery; however, 2 patients with infective endocarditis and one patient, who had not been diagnosed with SLE before surgery, were excluded from the study, therefore 30 cases were examined. Comparative studies were also carried out to examine the association between the levels of various autoantibodies and IgG and the onset of heart disease, the association between the total administered doses of steroids, the concomitant use of immunosuppressants as well as the association between DNA antibodies and complement.

Results: At the time of the surgical treatment of the heart diseases, the mean duration of illness was 25.4 years, and the age was V vs. I vs. A=56.7 (44-79, median value: 56.2) vs. 55.1 (34-72, median value: 57.0) vs. 63.2 (41-78, median value: 65.5), showing that the age tended to be higher in the A group. The integrated value of the duration of illness and the level of anti-DNA antibodies, which served an index of activity, was calculated, and the findings revealed that V vs. I vs. A was (14020 vs. 32966 vs. 29444), showing that the values tended to be slightly lower in valvular heart diseases. As for antiphospholipid antibodies, the rate of positivity of either CLβ2GPI or anti-CL antibodies or LA was as follows: V vs. I vs. A (58% vs. 28% vs. 33%), showing that the rate tended to be higher in valvular heart diseases and that anti-CL antibody-positive patients were particularly higher in number among those with valvular heart diseases (V). The maximum preoperative levels of IgG were as follows: V vs. I vs. A (2803 vs. 1889 vs. 1708), which showed that the levels were higher with valvular heart diseases (V); those of SS-A antibodies were as follows: (36% vs. 43% vs. 42%), which showed high positive rates in all cases; and RNP antibody-positivity rates were as follows: (9% vs. 29% vs. 25%), and were relatively lower in valvular heart diseases (V). Regarding the medical treatment, the total administered doses of steroids were (25g vs. 39g vs. 63g) and tended to be lower in valvular heart diseases (V); use of immunosuppressants was found in 5 of 30 patients (16%); and concomitant use of both was particularly low in valvular heart diseases (V) as it accounted for only one case.

Conclusion: Our study findings suggested that in SLE patients, prolonged duration of illness, positivity of SS-A antibodies and the absence of intake of immunosuppressants were highly likely to lead to cardiovascular diseases that need surgical treatment. Low integrated DNA antibody levels and the absence of concomitant use of immunosuppressants, despite high levels of IgG and the positivity of SS-A antibodies and anti-CL antibodies, might be risk factors for valvular heart diseases necessitating surgical treatment.

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AB0529

SICCA SYNDROME DURING CHRONIC HEPATITIS C: PREVALENCE AND CHARACTERISTICS

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Background: The prevalence of Sicca Syndrome (SS) in patients with Chronic Hepatitis C (CHC) ranges from 5% to 33%. A link between hepatitis C virus (HCV) and SS was evoked given the strong association of these two pathologies with mixed cryoglobulinemia (MC) on one hand and with the salivary tropism of HCV on the other hand.

Objectives: To study the prevalence and the characteristics of Sicca Syndrome during CHC.

Methods: All patients suffering from CHC followed over a period of 11 years (2002 – 2012) were retrospectively included. Only patients having clinical SS (xerostomia and/or xerophthalmia) were selected. We have analyzed all data concerning the patient, the hepatitis and the SS.

Results: Two hundred and four patients affected by CHC were included. A clinical SS was found in 17 patients (8.39%). There were 15 women and 2 men with an average age of 45.6 years. A High viral load and an advanced hepatic fibrosis were respectively found in 94 and 88% of cases. Cryoglobulinemia and antinuclear antibodies were found in 37.5% and 53% of patients, respectively. Four patients (3 women and 1 man) had also presented the criteria of Sjogren Syndrome. Their average age was 47 years. MC was positive in all 4 patients whereas anti-SSA and

anti-SSB were absent in the 4 patients. Biopsy of accessory salivary glands revealed the presence of a grade 4 lymphocytic sialadenitis according to the Chisholm and Masson classification in 3 patients, while the remaining case had a lymphocyte grade 2 sialadenitis. The evaluation of hepatic fibrosis did not reveal cirrhosis in the 4 cases.

Conclusion: The prevalence of Sicca syndrome during hepatitis C is estimated at 8% in our study. It was mainly reported in women with perimenopausal age and seems to be associated with cryoglobulinemia, a high viral load and an advanced fibrosis.

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AB0530

THE EFFECT OF MYCOPHENOLATE MOFETIL ON NON-RENAL MANIFESTATIONS IN SYSTEMIC LUPUS ERYTHEMATOSUS FROM 2014 TO 2018: OBSERVATION STUDY FROM KOREAN LUPUS NETWORK (KORNET) REGISTRY

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Background: Mycophenolate mofetil (MMF) has been established to a potent therapeutic drug for regulate renal involvement in systemic lupus erythematosus (SLE).

Objectives: The object of this study is to identify the effect of MMF on non-renal manifestations in SLE.

Methods: The study population was total 439 SLE patients enrolled from Korean Lupus Network (KORNET) registry. The KORNET registry was followed up annually and completed from baseline survey to the 2nd visits from 2014 to 2018. In the subgroup analysis, the effect of MMF on clinical features was also evaluated in 110 patients with histologically confirmed lupus nephritis (LN). The changes of clinical features including mucocutaneous lesions, arthritis, serositis, neurologic disorder, and hematologic abnormalities were assessed between MMF and non-MMF groups during follow-up period. Statistical analysis was used by multiple comparison analysis, considering time, group, and interaction of follow-up time and treatment group.

Results: There was significant difference of malar rash and renal disorder between MMF and non-MMF groups considering time and group in total SLE patients ($p = 0.025$ and $p < 0.001$, respectively). In hematologic abnormalities, proportion of leukopenia was significantly different between two groups during follow-up periods ($p_{\text{time}} < 0.001$, $p_{\text{group}} < 0.001$, and $p_{\text{time} \& \text{group}} = 0.004$). In 110 LN patients, there was not difference of non-renal clinical features between them. In contrast, proportion of leukopenia in patients with LN was significantly different between two groups during follow-up periods ($p_{\text{time}} < 0.001$, $p_{\text{group}} = 0.003$, and $p_{\text{time} \& \text{group}} = 0.004$).

Conclusion: This study showed that MMF might be beneficial to treatment for hematologic abnormalities in SLE.

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AB0531

OBESITY INCREASES THE INCIDENCE OF NEW-ONSET LUPUS NEPHRITIS AND ORGAN DAMAGE DURING FOLLOW-UP IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background:

Objectives: This study investigated the detrimental effects of obesity on clinical manifestations, disease activity, and organ damage in Korean patients with systemic lupus erythematosus (SLE).

Methods: We obtained data on 393 SLE patients from the Korean Lupus Network registry. Demographic variables, clinical manifestations, laboratory findings, Physician Global Assessment (PGA), Systemic Lupus Erythematosus Disease Activity Index (SLEDAI)-2000 and Systemic Lupus International Collaborating Clinics Group (SLICC) damage index scores were recorded at the time of enrollment. The tests were repeated annually for 3 consecutive years. We divided the patients into groups according to their body mass index (BMI) using the Asia-Pacific classification (normal, BMI < 23; overweight, 23 ≤ BMI < 25; obese, BMI ≥ 25). Univariate and multivariate analyses were performed to assess the impact of obesity on clinical outcomes.

Results: Of the 393 patients, 59 (15.0%) were obese at the time of enrollment. Obese patients had more comorbidities, such as diabetes ($P=0.002$), hypertension ($P=0.005$), hyperlipidemia ($P=0.005$), and pulmonary hypertension ($P=0.036$) than non-obese patients. Nephritis at enrollment and newly developed nephritis during follow-up were more common in obese patients than in non-obese patients ($P=0.002$ and $P=0.002$, respectively). In addition, obese patients had higher daily and cumulative prednisolone doses ($P=0.010$ and $P=0.010$, respectively) and higher rates of intravenous cyclophosphamide ($P=0.008$), mycophenolate ($P=0.030$), tacrolimus ($P=0.007$), and cyclosporine ($P=0.019$) use than non-obese patients. Furthermore, the PGA and SLICC damage index scores were higher in obese patients than in non-obese patients ($P=0.017$ and $P=0.039$, respectively) for all 3 consecutive years. In the multivariate analysis, obesity was significantly associated with male gender (OR = 0.141, 95% CI: 0.047–0.419, $P<0.001$), newly developed nephritis (OR = 2.741, 95% CI: 1.080–6.957, $P=0.034$), and annual increase in SDI (OR = 2.185, 95% CI: 1.229–3.885, $P=0.008$).

Conclusion: Obese SLE patients had a higher incidence of newly developed nephritis and cumulative organ damage than non-obese patients. Therefore, lifestyle modifications, including those aimed at weight loss, should be recommended for these patients to improve their clinical outcomes.

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AB0532

SOLUBLE SIGLEC-5 IS A NOVEL SALIVARY BIOMARKER FOR PRIMARY SJOGREN'S SYNDROME

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Background: Despite advances in the understanding of the pathogenesis, disease-specific biomarkers have not been included in the classification criteria for Primary Sjogren's syndrome (pSS).

Objectives: Based on the microarray of peripheral blood mononuclear cell (PBMC) of pSS patients, we aimed to investigate whether sialic acid-binding immunoglobulin-like lectin (siglec)-5 might serve as a biomarker for pSS.

Methods: Microarray of PBMCs obtained from 26 pSS patients and 10 healthy control (HC)s was performed to screen potential biomarkers for pSS. The concentration of siglec-5 in saliva and sera was determined by ELISA. Clinical parameters related with pSS were obtained from pSS registry and correlation with salivary siglec-5 level was evaluated. Receiver operating curve (ROC) analysis was performed to determine cut off value. A separate validation cohort consisted of subjects with suspicious pSS was evaluated to determine the performance.

Results: The level of salivary siglec-5/14 was significantly higher in pSS patients ($n=170$) compared with HCs ($n=25$) or non SS sicca patients ($n=78$) (1346.8 [202.8-4280.0] pg/mL, 6.08 [0-134.0] pg/mL, and 195 [0-947.5] pg/mL, median [interquartile range], $P<0.001$), meanwhile the serum level was not different between the groups. Clinical parameters were available in 170 patients in pSS registry. Salivary siglec-5 level negatively correlated with salivary flow rate (spearman's rho: -0.420, $P<0.001$), and positively correlated with ocular surface score (rho: 0.331, $P<0.001$) and serum immunoglobulin G level (rho = 0.202, $P=0.008$). However, the level