Methods: Total of 39 766 patients were analysed for anti-Sm antibody using the EURO lineimmuno assay kit, of which 1208 cases are positive for anti-Sm. All cases with positive anti-Sm were divided into true anti-Sm group and implausible group according to the result of Sm/RNP band. The proportion of clinical diagnosis including autoimmune diseases (AIDs) and non-immune diseases (NAIDs) and the level of some clinical serum indexes were retrospectively analysed for the implausible anti-Sm cases.

Results: Implausible anti-Sm were evidenced in 271/1208 (22.42) of all positive anti-Sm cases. Among patients with positive anti-Sm, 177 cases have definitive diagnoses (65.31%, 177/271), with autoimmune diseases accounting for 68.36% (121/177), of whom 96 had systemic lupus erythematosus (SLE) (79.34%). In addition, there are 5 implausible cases with rheumatoid arthritis (RA), 3 with Sjogren syndrome (SS) and 10 with mixed connective tissue diseases (MCTDs). The titer of antinuclear antibodies (ANA) in patients with implausible anti-Sm is lower than ones with true anti-Sm. Implausible group have the same gender ratio, mean onset age and frequency of autoantibodies with true group. The prevalence of one of NAIDs, kidney disease, was significantly lower in implausible group than in true group ($X^2=3.841$, $p=0.05$).

Conclusions: Implausible anti-Sm have great diagnostic value in AIDs just as true anti-Sm. Patients with implausible anti-Sm have less incidence of evolving to autoimmune injury and kidney injury. Patients with implausible anti-Sm but without autoimmune diseases may be potential autoimmune disease victims.

Acknowledgements: This work was supported by fund of Department of Science and Technology of Sichuan Province, Grant No. 2016 JY0035 and the fund of Health and Family Planning Commission of Sichuan Province, Great. No. 16pg326.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.2368

AB0641 CORRELATION BETWEEN PHYSICIANS AND PATIENTS IN THE ASSESSMENT OF DISEASE ACTIVITY IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: In the assessment of systemic lupus erythematosus (SLE), laboratory data and clinical findings have been more focused than patient-reported outcomes which reflect quality of Life. Previous studies showed discrepancy between patients and physicians in assessments of disease activity in SLE.¹ The Systemic Lupus Activity Questionnaire (SLAQ), a lupus disease activity index which consisted of only patient reported outcomes, and SLE Disease Activity Index 2000 (SLEDAI-2K) were poorly correlated.²

Objectives: We aimed to investigate the correlation between SLAQ and SLEDAI-2K scores in those who had discordance between patients' VAS and physicians' VAS or not.

Methods: Both SLEDAI-2K and SLAQ were routinely measured at every outpatient visit in all SLE patients. We analysed the data between 9/12/2017 and 12/31/2017. Patients were divided into concordance (|patients' VAS-physicians' VAS| <25) or discordance group (|patients' VAS-physicians' VAS| ≥25).³ We measured correlation between SLAQ score vs SLEDAI-2K or SLEDAI-2K-nolab scores by Spearman's correlation in the concordance group and the discordance group. Comparison between the concordance group and the discordance group were performed using chi-squared test for categorical variables and Student t-test, Welch's t-test or Mann-Whitney U test for continuous variables.

Results: Total 130 patients were analysed; 91% of female, a mean age (SD) of 44¹⁵ years, steroid use of 91%, immunosuppressant use of 54%, HCQ use of 70%. Median SLAQ, SLEDAI-2K and SLEDAI-2K-nolab scores were 4 [IQR: 2–7], 4 [IQR: 2–4] and 0 [IQR: 0–2], respectively. Among them, 86 (66%) were classified in the concordance group. The SLAQ scores were weakly correlated with the SLEDAI-2K scores ($\rho=0.228$, $p=0.009$), and with SLEDAI-2K-nolab scores ($\rho=0.352$, $p<0.001$). In the concordance group, the SLAQ scores correlated with SLEDAI-2K scores ($\rho=0.327$, $p=0.002$) and SLEDAI-2K-nolab scores ($\rho=0.523$, $p<0.001$). The pain VAS and RAPID3 in the discordance group were significantly higher than those in the concordance group (30.77±26.54 vs 10.71±14.31, $p<0.001$, 8.11±5.87 vs 2.97±3.23, $p<0.001$, respectively). In the discordance group, the SLAQ scores were not correlated with SLEDAI-2K scores ($\rho=-0.029$, $p=0.849$) and with SLEDAI-2K-nolab scores ($\rho=-0.083$, $p=0.957$).

Abstract AB0641 – Table 1. LLDAS: Lupus low Disease Activity State *Student t-test **Welch's t-test †Mann-Whitney U test

	concordance group(n=86)	discordance group(n=44)	p value
Age (mean, SD)	41.74 (14.74)	49.00 (15.63)	0.010*
Sex (female) (%)	78 (90.7)	40 (90.9)	1.000
Disease duration (year, mean, SD)	10.78 (9.47)	12.18 (10.75)	0.447*
Antimalarial (%)	61 (70.9)	30 (68.2)	0.903
Immunosuppressant (%)	47 (54.7)	23 (52.3)	0.943
PSL doses (mean, SD) (mg)	5.13 (4.48)	5.59 (5.95)	0.629†
LLDAS (%)	48 (55.8)	22 (50.0)	0.658
MDHAQ (mean, SD)	0.20 (0.55)	0.33 (0.46)	0.015†
Pain (100mm VAS) (mean, SD)	10.71 (14.31)	30.77 (26.54)	<0.001**
Patient global (100mm VAS) (mean, SD)	14.43 (15.72)	39.57 (23.25)	<0.001**
Physician global assessment (100mm VAS) (mean, SD)	15.64 (13.64)	15.07 (15.39)	0.829*
RAPID3 (mean, SD)	2.97 (3.23)	8.11 (5.87)	<0.001**
SLAQ score (mean, SD)	4.63 (3.93)	6.16 (4.89)	0.056*
SLEDAI-2K (mean, SD)	3.50 (3.14)	3.82 (2.90)	0.575*
SLEDAI-2K-nolab (mean, SD)	0.92 (2.22)	1.73 (2.68)	0.030†

LLDAS: Lupus low Disease Activity State *Student t-test **Welch's t-test †Mann-Whitney U test

Conclusions: The correlation between SLAQ vs SLEDAI-2K or SLEDAI-2K-nolab scores was exhibited in the concordance group. Musculoskeletal pain may be associated with the discordance between patients' and physicians' assessment.

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Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.2743

AB0642 GLUCOCORTICOID INTAKE, HYPERGLYCEMIA AND OSTEOPOROSIS IN PATIENTS WITH AUTOIMMUNE DISEASES

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Background: Autoimmune diseases (AID) are often treated with glucocorticoids. Glucocorticoids have a number of substantial side effects in human body, including hyperglycemia and osteoporosis.

Objectives: Our study was to investigate the use of glucocorticoid in patients with autoimmune diseases and its negative influence on blood glucose and osteoporosis in the patients who receiving glucocorticoid treatment.

Methods: Patients with autoimmune diseases were enrolled from July to December in 2017 in rheumatology department of the Third Affiliated Hospital of Sun Yat-sen University. Demographic information, family history, past medical history, and clinical information were collected by two rheumatologists, including years of having glucocorticoids for treatment, largest dose of methylprednisolone, current dose of glucocorticoids. Blood glucose, glycosylated haemoglobin, and bone mineral density was required. The Statistical Package for Social Sciences (SPSS) software version 21 was used for all data management and analysis.

Results: Of all the 75 patients, 15 (20%) were male patients. 14.7% had primary education, while 26.6% received education in university. Numbers of the patients were stated as follows. Lupus, 29; rheumatoid arthritis, 4; Sjogren's syndrome, 10; systemic sclerosis, 10; myositis, 4; mixed connective tissue disease, 1; autoimmune hepatitis, 1; vasculitis, 5; other diseases, 11. Mean age was 40.29±14.64 years. Mean disease duration was 4.74±6.62 years. 3 (4%) patients had family history of diabetes. 3 (4%) patients had past medical history of diabetes. Mean duration of taking glucocorticoids was 3.30±4.40 years. 13 (17.3%) of the patients underwent high dose of glucocorticoid intravenous pulse (120 mg to 1000 mg of methylprednisolone). Current dose of glucocorticoids was 5.30±3.96 tablets of methylprednisolone. Mean blood glucose was 4.61±0.92 mmol/L. Mean glycosylated haemoglobin was 5.46±0.84. 2 patients were found to have diabetes in this study. 5 other patients were found to have higher blood sugar than normal range (3.9–6.1 mmol/L, according to our laboratory). 14 (18.7%) of the patients had osteoporosis according to BMD scores. In 17 patients who had receiving glucocorticoids for more than five years, 3 (17.6%) patients were found to have higher

blood sugar than normal range and 5 (29.4%) patients were found to have osteoporosis.

Conclusions: Glucocorticoids have substantial side effects in hyperglycemia and osteoporosis in the patient receiving glucocorticoid treatment. More years of taking glucocorticoids could lead to more hyperglycemia and osteoporosis. We should evaluate side effects of glucocorticoids in the patients with AIDs.

Disclosure of Interest: Y. Jiang: None declared, G. Du: None declared, X. Wu: None declared, Y. Xie: None declared, M. Zhao: None declared, Z. Liao Grant/research support from: National Natural Sciences Foundation of China [grant number 81201372], J. Gu Grant/research support from: the 5010 Subject of Sun Yat-sen University (2007023)

DOI: 10.1136/annrheumdis-2018-eular.3480

AB0643 FT3 STRONGLY CORRELATES WITH LIPID PROFILES AND DISEASE ACTIVITY IN SLE PATIENTS

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Background: Dyslipidemia is prevalent in Systemic Lupus Erythematosus (SLE) patients and associated with lupus nephritis. Non-thyroidal illness syndrome (NTIS) frequently occurs in some autoimmune diseases. The incidence of dyslipidemia and NTIS in SLE patients vary in different studies and the association of NTIS and dyslipidemia in SLE patients has not yet elucidated.

Objectives: To investigate the frequency of dyslipidemia and NTIS in SLE patients and their association with laboratory parameters and SLE disease activity index (SLEDAI). To further explore the association between FT3 and blood lipid profiles in SLE patients.

Methods: This cross-sectional and prospective study included 271 patients fulfilled the ACR criteria for SLE. Forty-one patients who had a history of thyroid disease and/or familial hyperlipidemia and/or other rheumatologic diseases, and those took lipid-lowering agents or thyroid medications are excluded. Detailed laboratory parameters were collected and SLEDAI were assessed by qualified specialists of Rheumatology.

Results: Frequencies of dyslipidemia and NTIS in SLE patients are 61.8% and 57.2%, respectively. Laboratory indexes such as BUN ($p<0.05$), urine acid ($p<0.01$), CRP ($p<0.001$), ESR ($p<0.001$) and SLEDAI ($p<0.05$) are significantly increased in SLE patients with dyslipidemia than non-dyslipidemia. Compared to euthyroid SLE patients, SLE patients with NTIS showed substantially elevated 24 hour urine protein ($p<0.001$), fasting blood glucose ($p<0.001$), BUN ($p<0.001$), serum creatinine ($p<0.01$), uric acid ($p<0.05$), CRP ($p<0.05$), ESR ($p<0.001$) and SLEDAI ($p<0.01$). Moreover, triglyceride ($p<0.01$), total cholesterol ($p<0.01$), LDL ($p<0.01$) and ApoB ($p<0.001$) levels are markedly higher in SLE patients with NTIS than euthyroid ones, while HDL levels obviously decreased in the former group ($p<0.01$). More notably, the lower FT3 patients showed more severe lipid profiles and significantly higher 24 hour urine protein ($p<0.001$), BUN ($p<0.001$), serum creatinine ($p<0.001$), uric acid ($p<0.05$), and SLEDAI ($p<0.05$) than patients with normal FT3. FT3 levels are negatively correlated with triglyceride ($r=-0.263$, $p<0.0001$), total cholesterol ($r=-0.295$, $p<0.0001$), LDL ($r=-0.273$, $p<0.0001$) and positively correlated with HDL ($r=0.180$, $p<0.01$).

Conclusions: Dyslipidemia and NTIS are prevalent in SLE patients and strongly correlates with disease activity. SLE patients with NTIS are more likely to combine with dyslipidemia, FT3 levels significantly correlates with lipid profiles and FT3 may plays a protective role in dyslipidemia.

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Acknowledgements: None

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.3401

AB0644 PREGNANCY OUTCOMES OF PLANNED PREGNANCY IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS: A RETROSPECTIVE MULTICENTER STUDY

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Background: Compared with the general population, patients with SLE are still at high risk of adverse pregnancy outcomes (APOs). A number of studies have shown that patients with SLE are more likely to develop fetal complications, including fetal loss, preterm birth and IUGR, compared to healthy women.

Objectives: To investigate the fetal and maternal outcomes, as well as predictors for APOs in women with SLE who conceived when disease was stable, the so called "planned pregnancy".

Methods: A retrospective multicenter study of 243 patients with SLE who underwent planned pregnancy was performed. APOs in fetus and mothers were recorded.

Results: The average age at conception was 28.9 ± 3.9 years. Duration of SLE prior to pregnancy was 4.4 ± 4.3 years. Fetal APOs occurred in 86 (86/243, 35.4%) patients. Preterm births, intrauterine growth retardation (IUGR), fetal distress, and fetal loss accounted for 22.2%, 14.8%, 11.1%, and 4.9%, respectively. Forty-two preterm infants (42/54, 77.8%) were delivered after the 34th week of gestation. All the preterm infants were viable. Fifty-two patients (52/243, 21.4%) had disease flares, among which 45 (45/52, 86.5%) cases were mild, 6 (6/52, 11.5%) were moderate and 1 (1/52, 1.9%) was severe. Fifty-two disease flares (21.4%) occurred, among which 8 disease flares occurred during the first-trimester, 15 during the second-trimester, and 29 during the third-trimester. Disease activity was mild in 45 (45/52, 86.5%) patients, moderate in 6 (6/52, 11.5%), and high in 1 (1/52, 1.9%). Disease flares were mainly presented as active lupus nephritis (41/52, 78.8%), thrombocytopenia (10/52, 19.2%), and skin/mucosa lesions (9/52, 17.3%). Pregnancy-induced hypertension (PIH) occurred in 29 patients, among which 3 were gestational hypertension and 26 were preeclampsia. Multiple analysis showed that disease flares (OR 8.1, 95% CI 3.8–17.2, $p<0.001$) and anticardiolipin antibodies positivity (OR 7.4, 95% CI 2.5–21.8, $p<0.001$) were associated with composite fetal APOs.

Conclusions: Planned pregnancy improved fetal and maternal outcomes, presenting as lower rate of fetal loss, more favourable outcomes for preterm infants as well as less severe disease flares during pregnancy. Our research reinforced the importance of planned pregnancy, which allowed women with SLE to conceive in a proper time monitored by multidisciplinary experts.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.1621

Vasculitis

AB0645 ANCA VASCULITIS: THE EXPERIENCE AND TRENDS IN PATIENT CARE FROM A SINGLE CENTRE

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Background: ANCA-associated vasculitis [AAV] is a small-medium vessel vasculitis that presents in a multi-systemic fashion, and is associated with significant mortality. Outcomes have improved with the introduction of immunosuppressive medications [ISM], the evidence supporting the initial choice ISM is limited, and may be influenced by health disparities related to social factors.

Objectives: The objective of this study was to compare various factors known to influence management and outcomes in AAV. Factors including, patient demographics, socioeconomic, clinical presentations, and medication choices were reviewed in relation to outcomes within the cohort.

Methods: This was a retrospective, single centre, hospital-affiliated cohort study. A list of all patients seen by the Rheumatology service between 2011 and 2016 with a diagnosis of AAV was generated. A review of the 3000 charts confirmed 77 patients that met the 1990 American College of Rheumatology criteria for AAV. General demographic data including age, gender, zip code, and median household income as well as disease related data including serology, disease manifestation, and treatment were obtained through a chart review and recorded in the database. Supplemental socioeconomic information for each patient zip code was obtained from the United States Government Census website.

Results: In our cohort the anti-proteinase 3 [PR3] antibody was the most common positive antibody. There was a relationship between PR3 antibody positivity rate