elastography-USG scores were shown to be higher in patients with sialometry of ≤1,5 ml (n=7)(28±3 vs 17±10, p=0,010, 8±1 vs 5±3, p=0006 and 9±1 vs 5±2, p=0,028) and anti-Ro positivity(n=24) (24±10 vs 13±8 7±3 vs 4±2, p<0001 and 7 ±2 vs 3±2, p=0,003). The patients with severe parotid involvement (inhomogeneity/hypoechogenic areals≥2) had more frequent anti-Ro and anti-La positivity (80 vs 42%, p=0004 and 48 vs 17%, p=0,011)

Abstract THU0372 – Table 1. Demographics and Clinical Characteristics of SjS patients.

	n=75
Sicca symptoms	69(92%)
Arthralgia/arthritis	62(83%)
Parotitis	20(27%)
Raynaud Phenomenon	12(16%)
Leucocytoclastic vasculitis	5(7%)
Peripheral neuropathy	7(9%)
Interstitial lung disease	3(4%)
Lymphadenopathy	12(16%)
Congenital heart block	2(3%)
ANA	62 (82%)
Anti-Ro/La	35(47%)
ESR(mm/h)	32±20
CRP(mg/l)	4,8±6,1

Abstract THU0372 – Table 2. Disease Activity Indexes and SG-USG Scores of SjS Patients

	n=75
ESSPRI-total	14,8±6,5
-dryness	5,4±2,5
-fatigue	4,8±2,8
-pain	4,6±3
VAS	50±22
ESSDAI-total	2,1±3,5
Hocevar-USG Score	19±5
Milic-USG Score	6±3
Sialometry (ml) (n=45)	6,4±5
Elastography (n=32)	5,3±2,6

Conclusions: Hocevar scoring system of major salivary glands was found to be related to patient reported activity in SjS. USG scores were associated with reduced saliva secretion and anti-Ro positivity. Severe parotid involvement was shown to be related to anti-RO and La positivity. Evaluation of SG-USG including different scoring systems and elastography might reflect function of the salivary glands.

Disclosure of Interest: None declared

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THU0373 THE MARKERS USEFUL IN PREDICTING LUPUS NEPHRITISIN CLINICAL PRACTICE

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Background: Lupus nephritis (LN) is one of the most severe clinical manifestations of systemic lupus erythematosus (SLE). LN can be found in approximately 50% of SLE patients. The renal biopsy remains the gold diagnostic standard. However non-invasive and clinically practical laboratory markers of kidney damage in this disease are sought.

Objectives: The aim of the study was to assess the utility of biomarkers like inflammable indicators, complement system components and albuminuria in a single urine sample for prediction of kidney involvement and disease activity in patients with SLE.

Methods: A prospective study included 33 patients (81.8% women) with SLE criteria according to SLICC (Systemic Lupus International Collaborating Clinics) in age of 39.0±14.3 years. Disease-duration ranged 6–60 months. We performed full physician examination and we excluded patients with active infection. The disease activity based on the SELENA-SLEDAI scale was assessed and divided into groups: low activity (L)<6, moderate (M) 7–12, high (H)>12 points.

In the blood samples complement components (C3, C4) (g/L), C-reactive protein CRP (mg/L), interleukin 6 (IL-6) (pg/mL), serum creatinine concentration (sCr) (mg/g), ESR (mm/h), glomerulal filtration rate (eGFR) according to CKD-EPI (ml/min/1.73 m^2) were determined. The concentration of albumin (uAlb) (mg/dl) and creatinine sCr (g/dL) from the morning urine sample was measured and the albumin/creatinine index (uACR) (mg/g) was calculated. Based on the obtained results, patients were divided into stages of chronic kidney disease (CKD) according to .KDIGO 2012. A daily proteinuria (DP) (g/24 hour) was performed. In the assessment of statistical significance, Kruskal-Wallis or Mann-Whitney U-tests were used.

Results: In our study the SLE activity was as follows (%): L-24 (72.7), M-6 (18.2), H-3 (9.1). The average values (range) of biomarkers of renal function were: Cr=0,81±0,27 (0.55–1.65), eGFR=99.6±24.4 (46–131), uAlb=13.6±34.4 (0.04–161.0), uACR=121.3±356.3 (4.8–1905.3), DP=0.32±0.92 (0.015–5.3), and other biomarkers: OB=26.1±25.9 (4.0–99.0); CRP=10.3±28.1 (0.2–148.7); IL-6=7.8 ±14.7 (0–78.3); C3=1.08±0.36 (0.33–2.25); C4=0.16±0.09 (0.02–0.43). The study group met the CKD criteria: G1 n=21 (63.6%), G2 n=9 (27.3%), G3 n=3 (9.1%); A1 n=26 (78.8%), A2 n=3 (9.1%), A3 n=4 (12.1%).

We showed a negative relationship between the eGFR and: CRP (R=-0.49, p=0.005), IL-6 (R=-0.48, p=0.005) and C4 (R=-0.43, p=0.01). There was also a significant dependence of the SLEDAI SLE activity with: uAlb (L, H) (p=0.04), DP (M, H) (p=0.03), uACR in the whole study group (p=0.04) and between uACR and DP (p=0.0003).

Conclusions: Our studies showed that the risk of kidney damage in SLE may depend on the concentration of CRP, IL-6, C4. In addition albuminuria (uAlb, uACR) correlates with the value of DP and SLE activity, what indicates the dominant glomerular lesion in the etiopathogenesis of proteinuria in LN.

Disclosure of Interest: None declared

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THU0374 FACTORS ASSOCIATED WITH HIGH-DOSE CORTICOSTEROID USE IN SLE PATIENTS POST INITIATION OF SLE THERAPY

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Background: Systemic lupus erythematosus (SLE) therapies include non-steroidal anti-inflammatory drugs, antimalarials, systemic immunosuppressants, and biologics with corticosteroids as necessary. The majority of these current therapies are only partially effective in disease control. Despite treatment, patients may experience flares of disease activity, which can lead to progressive end-organ damage. Severe flares may require intensive immunosuppression, including with high-dose corticosteroids, with risk including end-organ damage.

Objectives: To understand the unmet need in SLE by quantifying use of high-dose (≥40 mg/day) corticosteroids and determining factors associated with its use.

Methods: This study utilised the Truven Marketscan commercial claims database. Patients were indexed on first use of antimalarial, oral immunosuppressant or biologic during 2012–2013 (first use determined based on no claims for the 3 drug classes during the 1 year pre-index). Included patients had 2 recorded SLE diagnoses, were 18–50 years of age and had continuous medical and prescription enrollment from baseline through the 2 year follow-up. Patients with other prespecified autoimmune disorders or cancers during the study period (baseline through follow-up) were excluded. During follow-up, fill of at least 1 high-dose corticosteroid prescription was assessed and associative logistic regression modelling performed.

Results: 1401 patients (93% female; mean age 38.4 years) met the study criteria; 79% were indexed on an antimalarial, 15% on an oral immunosuppressive, 1% on a biologic and 5% on a combination of at least 2 of the aforementioned classes. 16% patients received a diagnosis code for nephritis or chronic kidney disease (CKD), 3% for myocarditis or pericarditis, and 13% for thrombocytopenia or leukopenia. During baseline, 56% of patients had at least 1 visit to a rheumatologist and 13% filled at least 1 high-dose corticosteroid prescription. During follow-up, 22% of patients had at least 1 high-dose corticosteroid prescription. Factors significantly associated (p<0.05) with high-dose corticosteroids during follow-up included: baseline rheumatologist visit (OR=0.62; 95% CI=0.47–0.82), number of SLE medication classes received during follow-up (OR=1.85, 95% CI=1.36–2.51), receipt of high dose corticosteroid during baseline (OR=5.21, 95% CI=3.60–7.53), nephritis or CKD (OR=1.85, 95% CI=1.29–2.64), myocarditis/pericarditis (OR=3.38, 95% CI=1.75–6.55), and thrombocytopenia/leukopenia (OR=1.70, 95% CI=1.17–2.48).

Conclusions: A number of baseline factors were associated with high-dose corticosteroid treatment during the follow-up period; one notable factor is the high percentage of patients using high-dose corticosteroids (≥40 mg/day). This indicates

that important subsets of patients experience inadequate disease control with current therapies. This study reveals high-dose corticosteroid use is prevalent in SLE management broadly, underscoring the unmet need in this population.
Disclosure of Interest: K. Schroeder Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, J. Paik Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, R. Hoffman Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, S. Gelwicks: None declared
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THU0375 QUALITY OF LIFE IN INDIAN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS IN DURABLE REMISSION: PSYCHOSOCIAL AND DEMOGRAPHIC FACTORS

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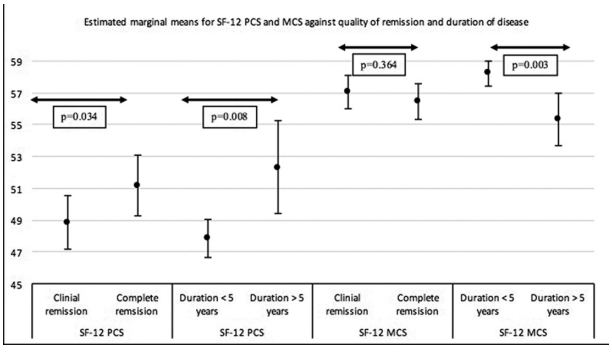
Background: Remission in systemic lupus erythematosus (SLE) is uncommon. Detrimental effect of disease activity on quality of life (QoL) is reported but literature on QoL in lupus patients in durable remission is scant.
Objectives: To study QoL in Indian SLE patients in durable remission
Methods: We retrospectively included female SLE patients fulfilling ≥4 SLICC Classification Criteria, followed regularly at our clinic, who were in durable remission as determined by European consensus criteria (complete/clinical remission ±immunosuppressive drugs). QoL was assessed with Medical Outcomes Study Short-Form-12 (SF-12). We also collected data on demographics (age, duration of disease, years of education), duration and quality (complete versus clinical) of remission and patient reported fatigue through fatigue severity scale (FSS). A structured interview with a clinical psychologist using ICD-10 Diagnostic Criteria for Research (DCR) was performed to diagnose depression. Age matched female control subjects were also included and underwent similar exercises. Association of physical and mental component summary scores (PCS and MCS) of SF-12 with depression, quality and duration of remission, duration of disease, years of education and FSS were tested with generalised linear models using Gamma regression with log-link function.
Results: We included 106 female SLE patients (age: 28.9±7.6 years; duration of disease: 45.1±34.8 months; years of education: 9.6±5.2; depression present in 41 (38.7%)) and 98 female controls (age: 30.4±7 years; years of education: 10.8 ±6.2; depression present in 32 (32.7%)). At last visit, clinical remission was present in 68 (64.2%) and complete remission in 38 (35.2%). Duration of remission achieved were:<1 year in 17 (16%), 1–2 years in 40 (37.7%), 2–3 years in 18 (17%) and >3 years in 31 (29.2%). Steroid-free remission was present in 64 (60.37%) and the rest 42 (39.62%) were on ≤5 mg/d prednisolone. All were on hydroxychloroquine. A stable dose of 2nd immunosuppressive drug was present in 54 (50.94%) with 3 on stable dose of mycophenolate and 51 on azathioprine. SLE patients had comparable SF-12 PCS (48.4±8.1 vs 47.1±7, p=0.098) and MCS (57.7±3.4 vs 56.6±5.6, p=0.199) as compared to controls. Among lupus patients, both PCS (r=– 0.616, p<0.001) and MCS (r=– 0.298, p<0.001) were correlated with FSS and years of education (with PCS, r=– 0.215, p=0.027; with MCS, r=– 0.269, p=0.005). Independent predictors of PCS were: clinical remission (Odd's ratio (OR) 0.95, 95% confidence interval (CI) 0.92–0.99, p=0.033), FSS (OR 0.90, 95% CI 0.89–0.92, p<0.001) and disease duration <5 years (OR 0.92, 95% CI 0.86–0.97, p=0.006). Independent predictors of MCS were: FSS (OR 0.991, 95% CI 0.983–0.999, p=0.025), years of education (OR 0.998, 95% CI: 0.995–0.999, p=0.028) and disease duration <5 years (OR 1.053, 95% CI 1.018–1.089, p=0.003). Estimated marginal means of PCS and MCS against quality of remission and duration of disease are plotted in figure 1.



Abstract THU0375 – Figure 1. Estimated marginal means for SF-12 PCS and MCS against quality of remission and duration of disease

Conclusions: Indian lupus patients in durable remission had similar physical and mental QoL compared to healthy controls. Physical QoL was better in patients with complete remission, longer disease duration and low fatigue. Mental QoL was better in patients with low fatigue, less education and longer disease duration.
Disclosure of Interest: None declared
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THU0376 CHARACTERISTICS OF PRIMARY SJÖGREN'S SYNDROME PATIENTS WITH MORPHOLOGICAL CHANGES OF THE PAROTID GLANDS IN MR IMAGING

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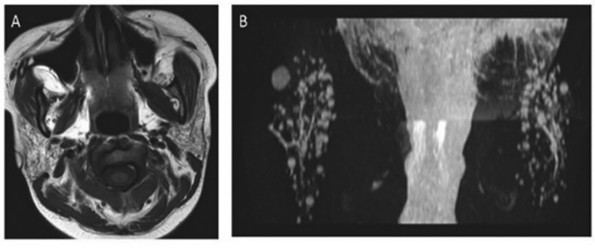
Background: Primary Sjögren's syndrome (pSS) is a chronic autoimmune disease characterised by injury of exocrine glands, and a considerable proportion of pSS patients develop extraglandular involvement. The parotid glands are the most frequently involved glands in pSS. Conventional parotid examinations, such as X-Ray sialography and 99mTechnetium ([99mTc]) pertechnetate scintigraphy, played an important role in the diagnosis of pSS. However, X-Ray sialography only shows the abnormality of parotid ductal system and there is exposure to radionuclides with 99mTechnetium. Both examinations are invasive, while MR imaging is noninvasive, radiation-free, and sensitive to the morphological and signal changes of the parotid glands. MR sialography could be used to evaluate the parotid ductal system without the need for a contrast agent. But the clinical application value of parotid grand MR imaging in pSS patients has not been verified.
Objectives: The purpose of this study was to investigate the morphological changes of the parotid glands in MR imaging in patients with pSS and the correlations between morphological changes and the clinical manifestations.
Methods: Ninty-nine pSS patients who underwent parotid 3.0 Tesla MR imaging (T1, T2 and T2 STIR) were enrolled in this study. The morphological changes of the parotid glands (grades 0–3) and ducts (grades 0–4) were rated according to our previous studies.[1] Patients were divided into normal parotid MR group (both glands grade and ducts grade were 0) and abnormal parotid MR group. The correlations between morphological changes of the parotid glands and clinical or serological characteristics were analysed by chi-square test.
Results: There were 93 females (93.9%) and 6 males (6.1%) in this study. The mean age and median disease duration were 47.4 years and 24 months. There were 50 (50.5%) pSS patients in parotid grand grade 0, 27 (27.3%) in grade 1, 15 (15.2%) in grade 2 and 6 (6.1%) in grade 3 (Fig 1A), and there were 53 (53.5%) pSS patients in parotid duct grade 0, 15 (15.2%) in grade 1, 17 (17.2%) in grade 2, 4 (4.0%) in grade 3, and 10 (10.1%) in grade 4 (Fig 1B). We found that patients in abnormal parotid MR group presented lower positive rates of myasthenia and higher positive rates of xerostomia, Schimer's test, serum anti-SSA antibodies, anti-Ro-52 antibodies, antinuclear antibodies (ANA), rheumatoid factor (RF), plasma globulin, immunoglobulin G (IgG), and Hashimoto thyroiditis (p<0.05). But no significant difference was observed between two groups in the incidence of salivary gland enlargement, articular involvement, dermatological involvement, interstitial lung disease, tubulointerstitial nephritis and primary biliary cirrhosis.



Abstract THU0376 – Figure 1. A: Axial T1-weighted image shows homogenous signal intensity of bilateral parotid glands with obvious hyperintense nodules (grade 3). B: MR sialography shows duct dilation of bilateral parotid glands (grade 4).

Conclusions: The results indicated that parotid MR imaging is a noninvasive, radiation-free examination with a potential role in diagnosing pSS. pSS patients with morphological changes of the parotid glands in MR imaging were more likely to have xerostomia, hyperglobulinemia and thyroid involvement.