Figure 1. Biopsy specimens showing tubulo-interstitial ELS by IHC (10x).

Conclusion: Assessment and management of LN patients are greatly facilitated by information obtained by renal biopsy. In the present study the evaluation by HE of 53 kidney samples from patients with LN showed TI-I in 62% of the specimens and a well-defined infiltrate pattern with GC-like features in 39% of those specimens with TI-I, confirmed in IHC. The presence of TI-I was associated with a worse outcome in response to therapy. Our preliminary results obtained by IHC suggest that ELS could be considered as a biomarker of renal response to B-cell depleting therapy supporting the importance of TI disease.

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SAT0224

ANTIPHOSPHOLIPID ANTIBODIES AND VASCULAR RENAL LESIONS AS PROGNOSTIC FACTORS IN LUPUS NEPHRITIS

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Background: Several studies have showed that antiphospholipid antibodies (aPL) positivity represents a predictor of worse renal outcome in patients with Lupus Nephritis (LN). In addition, an association between aPL positivity and the histological data of vascular lesions on the renal biopsies has been reported.

Objectives: To determine the prognostic role of aPL and vascular renal lesions in the assessment of clinical outcome during the follow up period, in terms of time to achieve remission, number of renal flares and development of chronic renal damage in patients affected by LN.

Methods: Among 120 patients affected by LN from our Rheumatology Unit, 91 patients (age 43.8 ± 12 years, 74 (81.3%) female, disease duration 7.1 ± 7.9 years) have been evaluated and the follow-up data have been collected at the baseline and at 6, 12, 24 months and at the last follow-up visit. Histopathological data of 41 patients were evaluated according to the 2016 revision of ISN/RPS classification.

Results: Among the 91 LN patients, 31 (34.1%) were aPL positive (aPL+), 10 (32.2%) of them were affected by Antiphospholipid Antibodies Syndrome (APS), 53.3% showed a single aPL positivity, 23.1% double aPL positivity and 15.4% triple aPL positivity. At the last follow up visit a significant higher number of aPL+ patients showed a persistent complement consumption than aPL negative (aPL-) patients ($p=0.001$). Evaluating clinical outcome, we observed that aPL- patients

showed a remission achievement time slightly earlier than aPL+ patients (13.6 ± 1.0 months vs 16.5 ± 1.5 months; log-rank test: $p=0.06$, Breslow test: $p=0.08$) and as expected, patients with a persistent complement consumption achieve remission later (18.2 ± 1.5 months vs 13.0 ± 1 months; log-rank test: $p=0.002$, Breslow test: $p=0.003$). Furthermore at the last follow up, a significant higher percentage of aPL+ patients developed persistent proteinuria ($p=0.02$) and chronic renal failure ($p=0.04$). Considering histologic features (activity and chronicity index, glomerulonephritis class, presence of mesangiolysis, glomerular wrinkling, glomerular thrombi, interstitial inflammatory infiltrates, interstitial fibrosis and tubular atrophy, tubulitis and vascular lesions) we didn't observe significant differences between aPL+ and aPL- patients but we found two typical vascular lesions (mesangiolysis and vascular thrombi) only in aPL+ patients.

Conclusion: aPL positivity is a predictor of worse renal outcome but in our cohort of LN patients we didn't find an association between aPL positivity and vascular renal lesions at renal biopsy. The worse renal outcome and the late time to achieve remission in aPL+ group can be related to a cumulative vascular damage over time as observed in other organ and systems.

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SAT0225

THE POSITIVITY FOR HISTOPATHOLOGIC ASSESSMENT IN SALIVARY GLANDS SHOWED LITTLE IMPACTS ON CLINICAL FEATURES FOR ESTABLISHED PRIMARY SJÖGREN'S SYNDROME IN A CERTAIN ETHNIC POPULATION

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Background: The presence and the severity of focal lymphocytic sialadenitis in minor salivary glands is a pathognomonic feature in primary Sjögren's syndrome (pSS). However, it has not been determined whether performing of minor salivary gland biopsy (MSGB) in a setting of serologically and clinically established pSS give us additional clinical information.

Objectives: To investigate the necessity of MSGB in established pSS patients with the anti-Ro/SSA antibody.

Methods: We extracted 185 patients with anti-Ro/SSA antibody-positive pSS from the Korean Initiative of primary Sjögren's Syndrome, a prospective cohort. We assigned them into two groups, 161 patients with focus score ≥ 1 and other 24 with focus score < 1 . The two groups were compared in various clinical aspects including the severity of glandular dysfunctions, systemic disease activities, extra-glandular manifestations, and other clinical indices and laboratory values. We also evaluated relationship between focus score and clinically important variables in pSS.

Results: Between two groups, there were no significant differences in the severity of secretory dysfunctions, the frequency of extra-glandular manifestations, systemic disease activities represented by various clinical indices, and laboratory findings possibly predicting the risk for lymphoma. Rather, the Sjögren's syndrome disease damage index was higher in the group with focus score < 1 . Among all variables, serum immunoglobulin G level solely showed the correlation with focus score.

Conclusion: Given that little influence on clinical phenotypes, unconditional performing of MSGB should be reconsidered for serologically and clinically established pSS, especially in low-risk area for lymphoproliferative diseases.

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SAT0226

MINOR SALIVARY GLAND BIOPSY TO DIAGNOSE LYMPHOMA IN PATIENTS WITH PRIMARY SJÖGREN'S SYNDROME

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Background: Non-Hodgkin B-cell lymphoma (NHL), especially mucosa-associated lymphoid tissue (MALT) lymphoma, is one of the main complications of primary Sjögren's syndrome (pSS). Frequent extranodal lymphoproliferation makes its diagnosis challenging and obtaining a biopsy difficult. Since pSS-associated lymphomas are very frequently MALT lymphomas with salivary gland involvement, we hypothesized that minor salivary gland biopsy (MSGB) could be useful for NHL diagnosis in this context.

Objectives: To evaluate the potential contribution of MSGB for the diagnosis of pSS-associated MALT lymphoma by comparing patients diagnosed with NHL based on MSGB or another tissue.

Methods: All pSS patients (ACR/EULAR 2016 classification criteria), from the Paris National Referral Centers for Rare Systemic Autoimmune Diseases, diagnosed with NHL between January 2010 and October 2019, were included. Each patient's clinical, biological, radiological and therapeutic information was collected retrospectively at NHL diagnosis and 1-year later. Only patients with MSGB available were analyzed; they were divided into 2 groups according to MSGB results for NHL: MSGB⁺ and MSGB⁻.

Results: Among 36 pSS patients diagnosed with NHL during the study period, 25 had an MSGB available at the time of NHL diagnosis. Among them, 13 MSGBs contained NHL (MSGB⁺). MSGB was the only site enabling NHL diagnosis for 10/13 (77%); pSS and NHL were diagnosed simultaneously in 4/13 (31%). MSGBs were NHL⁻ for lymphomas diagnosed based on other tissue samples for 12 (48%) patients (MSGB⁻). The clinical, biological, histological and radiological characteristics of both groups are reported in Table 1. No major differences were found between groups for median ESSDAI at NHL diagnosis and the frequency of salivary gland hypermetabolism on PET-CT. MALT-type NHL was found in 24/25 (96%) patients including 13/13 (100%) of those MSGB⁺ and 11/12 (92%) of those MSGB⁻. Six of the 13 (46%) MSGB⁺ patients received no treatment, while all MSGB⁻ patients were treated. Between diagnosis and 1 year of follow-up, ESSDAI scores without the NHL item did not differ (6.5 [3.5–9.5]) for the 6 untreated patients, but had significantly decreased for the 19 treated patients (3.5 [2.0–5.8]) (p=0.02).

Table 1. Comparison of the pSS patients' characteristics according to MSGB⁺ vs. MSGB⁻ for NHL

Characteristic	MSGB ⁺ , n=13	MSGB ⁻ , n=12
Female/male (ratio)	12/1 (12)	11/1 (11)
Age at NHL diagnosis, yr	60 (52–72)	58 (49.5–69.8)
pSS duration at NHL diagnosis, yr	2 (0–9)	3.5 (0.8–11)
ESSDAI score without NHL item	9 (6–16)	10 (3.5–19.8)
Cryoglobulinemia ⁺	9 (69)	3/9 (33)
Rheumatoid factor ⁺	9/11 (82)	8/8 (100)
Anti-SSA antibody ⁺	10 (77)	7 (58)
Anemia (Hb<12g/dL)	2 (15)	6/11 (55)
Gamma globulins, g/L	12.4 (10.8–16.9)	16.1 (12.3–20.0)
Histology		
MALT-type lymphoma	13 (100)	11 (92)
Diffuse-large B-cell lymphoma	0 (0)	1 (8)
[¹⁸F]FDG-PET-CT, SUV max >4.7		
Parotid or submandibular gland	6/12 (50)	3/10 (30)
Lymph nodes	1/12 (8)	3/10 (30)

Results are presented as number (%) or median (IQR).

Conclusion: Our results showed that, when MALT lymphoma is suspected, MSGB contributed to diagnosing NHL, either at initial assessment or during pSS evolution, enabling MALT lymphoma diagnosis in at least a third of NHL patients and >50% when MSGB was obtained systematically. Thus, MSGB might avoid the need for a more invasive procedure. Moreover, our findings suggest MSGB should be obtained at pSS diagnosis, and repeatedly during follow-up, when NHL, especially MALT, is suspected.

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SAT0227 CLINICAL AND IMMUNOLOGICAL PROFILE OF NEUROPSYCHIATRIC LUPUS IN SOUTH INDIA

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Background: Neuropsychiatric manifestations are one of the least understood aspects of SLE.

Objectives: To study the prevalence of NPSLE manifestations in our cohort and compare clinical and immunological features of patients with controls.

Methods: This was a retrospective study in a tertiary care centre. Classification of SLE was as per SLICC criteria. All patients of SLE diagnosed in the last 5 years with NP manifestations as per the ACR definitions were included. Consecutive patients of SLE over last 2 years without NP manifestations were taken as controls.

Results: Six hundred and thirty one patients with SLE were seen in our centre from Jan 2013 to Jun-2019. NPSLE manifestations as per the ACR definitions were seen in 100 patients (95 females) .137 (130 females) consecutive SLE patients without NP manifestations were included as controls. The commonest NPSLE manifestation was seizures followed by cerebrovascular accident (Table 1). NPSLE manifestation occurred at the first presentation in 77 patients. Forty patients had more than one NPSLE manifestation. Antiphospholipid (API) antibodies (lupus anticoagulant and anticardiolipin antibody) were tested in 94 patients and positive in 25 (26.3%). Only 10 of the 23 patients with CVA were positive for API. NPSLE syndromes were similar in API positive and negative patients. As compared to controls, NPSLE patients had lower prevalence of mucocutaneous and musculoskeletal manifestations. There were no differences in the autoantibody profile in NPSLE patients versus controls. MRI of the brain was available in 65 NP episodes and 51 were abnormal. Ischaemic changes (22) were the commonest followed by T2/FLAIR hyperintensities (16). Cyclophosphamide was used for induction in 46 and Mycophenolate in 19 patients. Follow up of ≥ 6 months duration was available 93 patients. Over a mean follow up duration of 31.1 ± 22.7 months, 6 patients had a NPSLE relapse and 10 died.

Table 1. Prevalence of NP SLE manifestations (N=631) and clinical and immunological features

NPSLE manifestations	Prevalence (%)	Clinical Feature	NPSLE (n=100)	Controls (n=137)	P value
All	100(15.85%)	Age	29.1±11.6	28.18±9.79	NS
Central Nervous System	65(10.3%)	M:F	5:95	7:130	NS
Aseptic meningitis	2(0.3%)	Mucocutaneous	55(55%)	105(76.6%)	<0.001
Acute Confusional State	12(1.9%)	Musculoskeletal	57(57%)	96(70%)	0.03
Cerebrovascular Disease	23(3.6%)	Hemolytic Anaemia	19(19%)	40(29.2%)	NS
Cognitive Dysfunction	2(0.3%)	Leucopenia	25(25%)	40(29.2%)	NS
Demyelinating Syndrome	3(0.5%)	Thrombocytopenia	22(22%)	36(26.3%)	NS
Headache	12(1.9%)	Serositis	10(10%)	16(11.7%)	NS
Movement Disorder	7(1.1%)	Lupus Nephritis	41(41%)	38(27.7%)	NS
Myelopathy	5(0.8%)	Direct Coomb's Test	44(44%)	55(45.5%)	NS
Seizures	35(5.5%)	Lupus anticoagulant	15(15%)	21(18.6%)	NS
		Anticardiolipin	12(12%)	14(12.5%)	NS
Peripheral Nervous system	28(4.4%)	Low complements	78(78%)	98(78.4%)	NS
AIDP	3(0.5%)	dsDNA	44(44%)	67(52.8%)	NS
Autonomic Disorders	1(0.1%)	Smith	38(38%)	51(40.8%)	NS
Cranial Neuropathy	5(0.8%)	Nucleosome	43(43%)	52(41.9%)	NS
Mono neuropathy	9(1.4%)	Histone	27(27%)	40(32.3%)	NS
Myasthenia Gravis	0	Ribo P	25(25%)	37(29.6%)	NS
Plexopathy	0	RNP/Sm	43(43%)	52(41.6%)	NS
Polyneuropathy	12(1.9%)	scI70	4(4%)	5(4%)	NS
		SSA	34(34%)	42(33.6%)	NS
Psychiatric	17(2.7%)	SSB	10(10%)	18(14.5%)	NS
Mood Disorders	8(1.3%)	Ro52	32(32%)	39(31.2%)	NS
Psychosis	13(2.1%)	PmScl	0	5(4%)	NS
Anxiety Disorder	4(0.6%)	PCNA	2(2%)	6(4.8%)	NS

Conclusion: Seizures and CVA are the commonest NPSLE syndromes. API positivity was not associated with NPSLE in our cohort.

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SAT0228 PREGNANCY OUTCOME IN SYSTEMIC LUPUS ERYTHEMATOSUS: A MONOCENTRIC COHORT ANALYSIS

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Background: Systemic Lupus Erythematosus (SLE) is a chronic autoimmune disease, affecting prevalently women in childbearing age. Thanks to pre-gestational counseling and multi-disciplinary approach, adopted in daily clinical practice, SLE patients are experiencing even more uncomplicated pregnancies.

Objectives: Here, we evaluated pregnancy outcome in a large SLE cohort, compared to a control group including pregnant women without autoimmune diseases.