Results: Baseline data: mean age 39 years, 135 females, 18 men, histological class III, 53 cases, IV: 58 cases, pure V: 12 cases, III/IV + V: 30 cases. At 52w after biopsy, SLEDAI (16 → 2), BILAG (17 → 2) score is significantly decreased. Dose of PSL was reduced (48 → 9 mg). At 52w, all cases were classified as RR (125 cases, 82%) and NR (27 cases, 18%) by ACR/LUNAR remission criteria. Surprisingly, all cases of pure V reached remission. Class III or IV LN (RR 114 cases; 91% vs NR 27 cases; 100%, $p = 0.01$) and cellular/fibrocellular crescent formation (RR 51 cases; 40% vs NR 18 cases; 66% $p = 0.01$) were significantly higher in NR. Clinically, long disease duration ($p = 0.02$), coexisting hypertension (RR 7 cases; 6% vs NR 9; 33%, $p < 0.01$) and TMA (RR 1 case; 0.7%, NR 2 cases; 7%, $p = 0.02$), baseline urine protein (RR 1.5g vs NR 2.2g, $p < 0.01$), baseline low WBC ($p = 0.03$), baseline low IgG ($p = 0.02$) were detected. About therapeutic drugs, IVCY significantly improved remission rate (RR 84 cases 68% vs. NR 9 cases 41%, $p = 0.03$). After long-term observation, 52w NR was significantly lower eGFR level (RR 81 vs NR 50, $p < 0.01$, median observation period of 138 months). 3 cases developed ESRD and all of those cases show crescent formation.

Conclusion: As histological factors contributing to 52w-NR, class III or IV and crescent formation were detected. This result suggested that the therapeutic response was relatively better in cases with IC deposition lesions than those with inflammatory lesions. In LN, more-detailed pathological classification which could extract crescent formation might be required.

Disclosure of Interests: Aya Nawata: None declared, Kazuhisa Nakano: None declared, Shingo Nakayamada Grant/research support from: Mitsubishi-Tanabe, Takeda, Novartis and MSD, Speakers bureau: Bristol-Myers, Sanofi, Abbvie, Eisai, Eli Lilly, Chugai, Asahi-kasei and Pfizer, Yoshiya Tanaka Grant/research support from: Abbvie, Astellas, Bristol-Myers Squibb, Chugai, Daiichi-Sankyo, Eisai, Mitsubishi-Tanabe, MSD, Ono, Taisho-Toyama, Takeda, Speakers bureau: Abbvie, Asahi-kasei, Astellas, Bristol-Myers Squibb, Chugai, Daiichi-Sankyo, Eli Lilly, Eisai, Glaxo-SmithKline, Janssen, Mitsubishi-Tanabe, Novartis, Pfizer Japan Inc, Sanofi, Takeda, UCB, YL Biologics

DOI: 10.1136/annrheumdis-2019-eular.3376

FRI0247

PROGNOSTIC ROLE OF TUBULO-INTERSTITIAL INFILTRATE IN PATIENTS AFFECTED BY LUPUS NEPHRITIS

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Background: Lupus nephritis (LN) occurs up to 50% of patients affected by Systemic Lupus Erythematosus (SLE) representing one of the major causes of morbidity and mortality in lupus population (1). Kidney biopsy is a fundamental tool for the diagnosis and management of lupus nephritis. The presence of pathological changes such as inflammatory infiltrate in glomeruli and/or in tubulo-interstitium are relevant in terms of prognosis and response to therapy (2).

Objectives: The aim of the study was to correlate the clinical and laboratory findings and the response to therapy with presence of glomerular and/or interstitial infiltrate in kidney section of patients with a biopsy-proven LN.

Methods: Kidney sections of patients with SLE undergoing a renal biopsy for diagnostically purpose were studied; samples were classified according to the 2004 International Society of Nephrology/Renal Pathology Society classification criteria (3). Clinical, laboratory and histological data were collected in a standardized, computerized and electronically filled form, including demographics, past medical history, autoantibody profile, previous and concomitant treatments. We assessed the disease activity by using SLEDAI-2K and remission in response to therapy was defined as the absence of renal impairment and as a score 0 of renal SLEDAI (proteinuria <500mg/24 hours, absence of hematuria and urinary casts) (4). All patients underwent to cyclophosphamide or mycophenolate treatment (5, 6). Two to three micron thick sections from paraffin-embedded blocks routinely stained with hematoxylin-eosin (HE) and Periodic acid-Schiff (PAS) for light microscopy investigation were re-evaluated. Predictive value of the presence of interstitial infiltrate on renal remission was evaluated. The results were expressed as mean±standard deviation (SD) depending on the distribution of the variables. The values of $P < 0.05$ were considered statistically significant.

Results: We evaluated 53 kidney samples from patients with LN (F:M = 51:2, mean age at biopsy 35±7.7 years; mean disease duration at date of biopsy 8±8.3 years). Class IV (46%) was the most common class

followed by class III (29%), class II (13%), class V (11.5%) and class VI (0.5%). Tubulo-interstitial infiltrate was found in 33 kidney specimens, with germinal centres (GC)-like features in 13 renal samples (Figure 1). During the follow up (6±3.8 years) the tubulo-interstitial infiltrate, either diffuse or with GC-like feature, was negatively correlated with renal remission ($P=0.03$).

Conclusion: Assessment and management of patients with LN are greatly facilitated by information obtained by renal biopsy. In the present study we demonstrate that the presence of tubulo-interstitial infiltrate is associated with a worse outcome in response to therapy. Our data highlight the importance of tubulo-interstitium damage, scarcely considered in the current classification criteria, since it represents a key point to predict long-term prognosis.

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Figure 1

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.5803

FRI0248

ANTI-CYCLIC CITRULLINATED PEPTIDE ANTIBODY IN PRIMARY SJÖGREN SYNDROME: A MARKER OF EROSIONS ON HIGH RESOLUTION ULTRASOUND OF HANDS AND WRISTS

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Background: Cyclic citrullinated peptides antibodies (anti-CCP) were described in primary Sjögren's syndrome (pSS). However, its possible associations with joint erosions, synovitis and tenosynovitis on high resolution ultrasonography of hands and wrists (US) in pSS are uncertain.

Objectives: To assess in pSS the US findings, and their possible associations with anti-CCP.

Methods: We have evaluated 97 consecutive pSS patients (2016 ACR/EULAR Classification Criteria), of both sexes, aged 18-76 years, and without meeting the 1987 ACR classification criteria for rheumatoid arthritis (RA). Twenty RA patients (disease duration <5 years, and without joint deformities), and 80 healthy controls with comparable mean age, gender and ethnicity were also included in a case-control study. Clinical evaluation was performed through a standardized protocol with interview and physical examination. Disease activity was measured according to EULAR Sjögren's Syndrome Disease Activity Index (ESSDAI). US was done in 36 joints and 36 tendon areas of wrists and hands, by the same rheumatologist with expertise in ultrasound, and blinded to autoantibody profile. Patients and controls also underwent X-ray of hands and wrists. Anti-CCP was determined by ELISA using a commercially available kit.

Results: Frequency of tenosynovitis on US was higher in the pSS group than in healthy controls (36.1 vs. 3.8%, $p < 0.001$). Moreover, the number of tenosynovitis was higher in the former group ($p < 0.001$). Importantly, the presence of erosions on US (27.8 vs. 7.5%, $p = 0.001$) and their number ($p = 0.005$) were greater in the pSS group than in healthy controls, with predominance of small erosions ($p = 0.015$). Comparative analysis between RA and pSS groups revealed that the frequency ($p < 0.001$) and number ($p < 0.001$) of synovitis on US were greater in the former group. The number of grade 1 synovitis was comparable between RA and pSS patients ($p = 0.354$). However, the number of grade 2/3 synovitis were higher in RA than in pSS patients ($p < 0.001$ / $p < 0.001$, respectively). Similarly, the number of erosions on US was higher in the RA group compared to pSS group ($p < 0.001$), particularly of moderate/large erosions