POS0783

LUPUS NEPHRITIS: HISTOLOGICAL FEATURES AND LONG TERM OUTCOMES IN A LARGE SINGLE-CENTRE COHORT

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Background: In Systemic Lupus Erythematosus (SLE) patients the incidence of lupus nephritis (LN) is about 40% ⁽¹⁾. The rate of progression to end stage renal disease (ESRD) is 4.3-10.1% ⁽²⁾ and renal involvement is a strong predictor of morbidity and mortality.

Objectives: To describe clinical, histological features and renal outcomes of LN patients included in our single-center registry reporting data from more than 30 years. Moreover, we examined the correlation between clinical features at LN diagnosis and therapeutic lines used during the course of a 24 years follow-up.

Methods: A total of 71 patients were diagnosed with LN from 1989 to 2020. Demographic features and laboratory abnormalities (serum creatinine, 24 hours urine protein, urinary sediment, ds-DNA) at the time of LN diagnosis and at last available follow-up, were evaluated. We also examined renal biopsy performed and the histological classes (proliferative vs non-proliferative). We considered the increase number of therapeutic lines adopted as a negative prognostic factor in response to therapy. Mean (SD) or median (IQR) were used according the variable distribution. T-test and Chi square and Mann-Whitney were used and p-value <0.05 were considered significant.

Results: Among 71 patients with LN, 63 (88.7%) were females and 8 (11.3%) males, with a F/M ratio of 6. Median SLE duration was 180 (162) months. The median age at the onset of nephritis was 28 (19.5) years and occurred in median after 12 (60) months from SLE diagnosis.

Sixty patients underwent a biopsy: the histology showed class III or IV proliferative glomerulonephritis in 49 patients (81.6%) and a non-proliferative class in 11 (18.3%) (p< 0.0001). Median serum creatinine value, 24 hours urine protein, urinary sediment, anti-ds-DNA at LN onset are reported in Table 1. Induction therapy was performed with cyclophosphamide in 14.5% of cases, mycophenolate in 21.1%, rituximab in 1.3%, cyclosporine A in 1.9% and azathioprine in 4.6%. The lines of therapies adopted during the follow-up ranged between a minimum of 0 and a maximum of 6 lines with a median value of 1.

Overall, the median follow-up was 180 (111) months and 30 (21.3%) patients had at least 120 months of follow-up. Median serum creatinine value, 24 hours urine protein, urinary sediment and eGFR last available follow-up are reported in Table 1. Three patients underwent dialysis and 3 kidney transplantation.

Eight patients underwent a re-biopsy: 7 (87.5%) had a proliferative class and 1 (12.5%) had a membranous class (p=0.01). Median serum creatinine value, 24 hours urine protein, urinary sediment at re-biopsy are reported in Table 1. In re-biopsied subgroup patients, induction therapies were cyclophosphamide in 50% of cases, mycophenolate in 12.5%, cyclosporine A in 25% and azathioprine in 12.5%. There were not statistically significant differences among the age on LN onset, the time from renal onset to the onset of the disease and the number of therapeutic lines adopted (Figure 1).

Conclusion: Among patients with LN the proliferative classes are the most common. At the 15-year follow-up 2,1% had renal transplantation and 2,1% dialysis. We did not detect any association between age at diagnosis, time from renal impairment and the number of therapeutic lines.

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Table 1. Laboratory features in SLE patients at LN onset, at last available follow-up and in re-biopsied patients.

	LN onset (n 71)	AFTER 10 years long FOLLOW-UP (n 30)	Re-biopsied patients (n 8)
Serum creatinine (mg/dl)	0.81 (+/- 0.4)	0.87 (+/- 0.60)	0.07 1.05 (0.45)
24 hours urine protein (mg/24h)	3000 (+/- 3707)	330 (+/- 793)	<0,00001 5068 (2392)
Active urinary sediment	64 patients (45,44%)	2 patients (6.66%)	<0,00001 8 patients (100%)
Anti-ds-DNA + eGFR <50ml/h	30 patients	12 patients (3.6%)	

Disclosure of Interests: None declared

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AUDIOLOGIC EVALUATION IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS AND IMPACT OF HYDROXYCHLOROQUINE THERAPY

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Background: Hydroxychloroquine (HCQ) is a commonly used agent in the treatment of rheumatic diseases including systemic lupus erythematosus (SLE). **[1]** **Objectives:** The aim of this study was to evaluate the hearing function in SLE patients and assess the impact of chronic HCQ.

Methods: This study was carried out on 60 individuals (48 SLE and 12 healthy controls). The SLE patients were divided into HCQ group (n=36) and non-HCQ group (n=12) according to the chronic administration of HCQ. All participants were assessed by full audiological history and extended high frequency audiometry at frequencies 9, 10, 11, 2, 12.5, 14, 16, 18 and 20 KHz.

Results: When comparing the study SLE patients with healthy controls, there was a statistically significant difference regarding patient reported otological manifestations such as tinnitus (p=.021), vertigo (p=.002) and hearing impairment (p=.042) while there was no significant difference regarding deafness or ear buzzing in one or both ears. HCQ group showed more hearing impairment at frequency 9000 and 20000 Hz than non-HCQ group (p=.004, <.001 respectively).

Conclusion: Otological symptoms and sensorineural hearing loss are prevalent among SLE patients. Chronic administration of HCQ may have an ototoxic effect.

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- [1] Fiehn, C., et al. "Safety management in treatment with antimalarials in rheumatology. Interdisciplinary recommendations on the basis of a systematic literature review." *Zeitschrift für Rheumatologie* (2020): 1-9.

Figure 1. Otological manifestations in the study SLE patients (n=48) and the healthy controls (n=12)

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POS0785

CHANGING EXPRESSION PROFILES OF LONG NONCODING RNAS, MIRNAS, MRNAS AND CIRCULAR RNAS IN LABIAL SALIVARY GLANDS OF PRIMARY SJÖGREN'S SYNDROME (PSS)

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Background: Primary Sjögren's syndrome (pSS) is a relatively common autoimmune disease characterized by oral and ocular dryness. An increasing number of studies have revealed that long non-coding RNA (lncRNA), miRNA, mRNA and circular RNA (circRNA) contributes to the pathogenesis of autoimmune diseases. **Objectives:** To explore lncRNA, miRNA, mRNA and circRNA expression profiles in labial salivary glands (LSGs) in pSS patients and their biological functions in the regulation of pSS.

Methods: The expression of 75,550 lncRNAs, 2,318 miRNA, 20,292 mRNAs and 6,877 circRNAs were determined in the LSG of six pSS patients and six healthy controls using microarray experiments. Validation was performed in pSS patients and controls using real-time PCR. lncRNA-mRNA co-expression and gene-pathway networks were constructed using bioinformatics software.

Results: A total of 599 lncRNAs (upregulated: 279, downregulated: 320), 78 miRNAs (upregulated: 26, downregulated: 52), 615 mRNAs (upregulated: 590, downregulated: 25) and 160 mRNAs (upregulated: 110, downregulated: 50) were differentially expressed in the LSGs of pSS patients. Five of these lncRNAs were validated using real-time PCR. lncRNA HCP5, lncRNA SNHG5, lncRNA IFI44L, lncRNA CMPK2 were significantly upregulated and lncRNA TTYH1 were downregulated in pSS. GO