A. İ. Ertenli¹, M. Arıcı², Y. Erdem². ¹Hacettepe University School of Medicine, Department of Internal Medicine, Division of Rheumatology, Ankara, Turkey; ²Hacettepe University School of Medicine, Department of Internal Medicine, Division of Nephrology, Ankara, Turkey; ³Hacettepe University School of Medicine, Department of Internal Medicine, Ankara, Turkey; ⁴Hacettepe University School of Medicine, Department of Pathology, Ankara, Turkey

Background: Although focusing on the proliferative form of lupus nephritis (LN), recent reports also highlight the importance of recognizing and treating non-proliferative forms of LN.

Objectives: In this study, we aimed to compare the clinical features and outcomes between proliferative and non-proliferative LN and to investigate the predictor factors of end stage renal disease (ESRD).

Methods: This retrospective study included 139 SLE patients who had at least one kidney biopsy between 2001 and 2020. 116 patients were diagnosed as LN. Biopsy findings had been classified according to the International Society of Nephrology and the Renal Pathology Society (ISN/RPS) classification. Demographics, disease involvements, laboratory values, treatment regimens, and outcomes in LN course were compared according to the proliferative and non-proliferative LN. Complete renal response within first 24 months was defined as ACR response criteria. Factors predicting the ESRD were analysed by the logistic regression analysis.

Results: A total of 116 lupus nephritis patients were categorised class 3 (n=17, 14.7%) or 4 (n=77, 66.4%) as proliferative LN and class 2 (n=9, 7.8%) or 5 (n=13, 11.2%) as non-proliferative LN. Of these patients, 80.2% was female. Mean age at the SLE diagnosis and SLE manifestations were similar for both group. ANA (+) ≥ 1:320, ds-DNA level, APS antibodies, anti-Sm (+) were similar for proliferative and non-proliferative LN, but ds DNA positivity and low level of C3 and C4 were more frequent in proliferative LN. LN duration was similar. Median renal SLEDAI scores were higher in proliferative LN group. Induction treatment regimens included pulse steroid 72.3%, CyC 51.8%, MMF 24.6%, Rtx 6.1%, CsA 4.4%, and plasma exchange 12.9%. ESRD, renal transplantation and exitus were major complications of LN. Predictors of ESRD were duration of lupus nephritis (OR 1.32 [1.09-1.61]; 95% CI), decrease in GFR at the biopsy time (OR 0.97 [0.95-0.99]; 95% CI), and being in complete renal response within 24 months (OR 21.07 [2.28-194.36]; 95% CI).

Conclusion: Unfortunately, LN patients still have worse outcomes, such as high ESRD rate, regarding to current effective immunosuppressive treatment regimens. Although patients' number were not enough for conclusion, interestingly, worse outcomes were not related with proliferative or non-proliferative LN. Complete remission within 24 months was most relevant good prognostic factor, and clinicians should be kept in mind to these windows of opportunity period.

Table 1. Demographic, clinical characteristics, and outcomes of the patients with lupus nephritis

Variables ^a	All patients (n=116)	Class 3 or 4 LN (n=94)	Class 2 or 5 LN (n=22)	p
Age at the SLE diagnosis, years	22.5±13.1	23±13.3	20.3±14	0.32
Sex, female	93 (80.2)	74 (78.7)	19 (86.4)	0.42
SLE disease duration	8 (8.7)	8 (9.7)	8.3 (7.5)	0.66
Lupus nephritis at diagnosis time	67 (58.8)	54 (58.7)	13 (59.1)	0.97
Manifestation of SLE				
-Musculoskeletal	75 (66.4)	63 (68.5)	12 (57.1)	0.32
-Mucocutaneous	60 (52.6)	50 (54.3)	10 (45.5)	0.45
-Hematologic	47 (40.9)	38 (40.4)	9 (42.9)	0.83
-Serosal	26 (23.2)	21 (23.1)	5 (23.8)	0.94
-Neurological	6 (5.3)	5 (5.4)	1 (4.8)	0.91
Laboratory values for kidney biopsy				
-Creatinine level (mg/dL)	0.7 (0.5)	0.8 (0.5)	0.6 (0.2)	0.01
-GFR (ml/min)	110 (67)	92 (55)	145 (59)	0.03
-≥ 60 ml/min	79 (79.8)	63 (77.8)	16 (88.9)	
-30-59 ml/min	8 (8.1)	7 (8.6)	1 (5.6)	0.55
-< 30 ml/min	12 (12.1)	11 (13.6)	1 (5.6)	
-24-hour urine protein				
≥ 1 gr/day	72 (71.3)	62 (76.5)	10 (52.6)	0.04
≥ 3 gr/day	36 (35.6)	32 (39)	4 (21.1)	0.14
-Active urinary sediment	91 (83.5)	78 (89.7)	13 (59.1)	0.001
Renal SLEDAI at the biopsy	12 (8)	12 (8)	8 (8)	0.001
Lupus nephritis duration (years)	5.5 (8)	5.1 (8.3)	6.4 (4.8)	0.73
Complete renal response within 24 months	69 (71.1)	55 (72.4)	14 (66.7)	0.61
End-stage renal disease	13 (11.2)	11 (11.7)	2 (9.1)	0.72
Renal transplantation	5 (4.3)	4 (4.3)	1 (4.5)	0.95
Exitus	8 (7)	7 (7.5)	1 (4.5)	0.62

^a n (%), if otherwise specified. Med (IQR) for numerical data excluding age; mean ± SD for age.

GFR: Glomerular filtration rate, LN: Lupus nephritis, SLEDAI: Systemic lupus erythematosus disease activity index

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POS0794

INCIDENCE AND PHENOTYPE OF ANTIPHOSPHOLIPID SYNDROME (APS) AFTER PREECLAMPSIA

S. Amylidi-Mohr¹, M. Karakitsiou¹, R. Braun¹, F. Förger², E. Rexhaj³, L. Raio¹. ¹Inselspital, Obstetrics, Bern, Switzerland; ²Inselspital, Rheumatology, Bern, Switzerland; ³Inselspital, Cardiology, Bern, Switzerland

Background: Obstetric Antiphospholipid syndrom (oAPS) is induced by antiphospholipid antibodies (aPL) and associated with specific pregnancy complications. oAPS requires the combination of at least one obstetrical and one laboratory criteria (in 2 or more occasions at least 12 weeks apart). Multiple aPL positivity, lupus anticoagulant (LA) or persistently high aPL titers is defined as high risk aPL profile. "Non-criteria" oAPS are cases not fulfilling the clinical criteria.

Objectives: To investigate the incidence of aPL after preeclampsia and the association of phenotypes of oAPS and pregnancy outcome.

Methods: The present retrospective cohort analysis included women followed up after preeclampsia. Anti-PL (LA, aCL, anti-β2GPI of IgG and IgM isotype) are assessed 8 to 12 weeks after PE and if positive, again at least 12 weeks apart. According to the ISSHP PE is classified as severe if the blood pressure exceeds 160/110mmHg, or is associated with HELLP syndrome, or eclampsia. FGR is defined as estimated fetal weight <5th, and birth weight <10th percentile, and/or pathologic fetal Doppler.

Results: Complete clinical and laboratory data were available for 99 women over a period of 6 years. 38.4% delivered <34+0 weeks. PE was severe in 63.6% of cases, and the incidence of FGR was 58.9%. HELLP syndrome was diagnosed in 34.3% and in 4 cases it was isolated. The prevalence of aPL was 35 (35.4%) at first evaluation, and 23 (23.2%) were still positive 12 weeks apart. 14/99 (14.1%) cases fulfilled the definition of classical oAPS, and 9/99 (9.1%) delivered >34 weeks ("non-criteria oAPS"). Of interest, the incidence of high risk aPL profiles was similar in both groups (64.3% vs. 77.8%; p=NS). The incidence of HELLP syndrome was higher in the presence of APS (APS: 9/23 [39.1%] vs. 21/76 [27.6%]; p=NS). 3 out of 4 cases with isolated HELLP syndrome were associated with high risk aPL profiles. Overall, aCL IgG was the dominant aPL. 32/35 (91.4%) and 22/23 (95.7%) had positive aCL at first and second investigation, respectively (p=NS). An aCL IgG titer >32.8CU at first assessment yield a LR of 10 for persistent aCL with a sensitivity and specificity of 91.3% and 90.9%, respectively.

Conclusion: Classical and "non-criteria" obstetrical APS show a similar aPL pattern and distribution of aPL phenotypes regardless of gestational age at delivery. aCL IgG is the dominant aPL antibody and is highly predictive for aPL persistence at follow up. HELLP syndrome may be an additional feature of oAPS, in particular the isolated form. However, more studies are necessary to explore this possible association.

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POS0795

ULTRASOUND-GUIDED CORE NEEDLE BIOPSY: AN EFFECTIVE AND SAFE TOOL TO DIAGNOSE SJÖGREN'S SYNDROME AND LYMPHOMA OF THE MAJOR SALIVARY GLANDS

U. Borner¹, L. Nisa Hernandez¹, A. C. Sarbu², L. Christ², Y. Banz³, B. Maurer², M. D. Caversaccio¹, F. Koller². ¹Inselspital, University Hospital Bern, University of Bern, Otorhinolaryngology, Head and Neck Surgery, Bern, Switzerland; ²Inselspital, University Hospital Bern, University of Bern, Rheumatology & Immunology, Bern, Switzerland; ³Pathology, University of Bern, Bern, Switzerland

Background: Histopathology is a cornerstone of diagnostics in Sjögren's syndrome (SjS). The current widely accepted standard, minor salivary gland (lip) biopsy, is a surgical procedure with several disadvantages including permanent sensory loss of the lips as a well-known complication (reviewed in 1). Moreover, lymphoma of salivary glands cannot be excluded. Ultrasound-guided core needle biopsy (CNB) is an excellent diagnostic tool with good safety (2) and encouraging results as compared to open biopsy (3).

Objectives: To retrospectively analyze safety and diagnostic outcome of ultrasound-guided CNB in patients with known or suspected SjS.

Methods: A retrospective analysis of a case series of four patients with known or suspected SjS. All patients were treated at the outpatient clinic of the Department of Rheumatology & Immunology, and the Department of Otorhinolaryngology. All patients underwent ultrasound-guided CNB: We clean and disinfect the ultrasound transducer and the skin of the patient before and after the procedure. We use a sterile probe cover and gloves. Only sterile ultrasound gel or ultrasound compatible disinfectant should be used. Core-needle biopsy was

performed using a 20g needle (Bard). A Logiq S8 GE ultrasound device with a 6-15 MHz matrix linear transducer was used. We performed a local anesthesia at the entry point and a 2mm skin incision. The sampling length was set on 20mm. The CNB was performed at the most suspicious focal sonographic lesion. 2-3 needle passes were carried out through the same skin access.

Results: Representative histopathological samples were obtained from all patients. In patient 1 (62y) with known SjS and parotid swelling, mucosa-associated lymphoid tissue (MALT) lymphoma was diagnosed (previous lip biopsy with no proof of malignancy). Also in patient 2 (35y) with known SjS and a 20-years history of parotid swelling, MALT lymphoma was diagnosed. In this patient a lip biopsy was performed in the previous year supporting the diagnosis of SjS, but without proof of malignancy. In patient 3 (64y) with SSs, anti-Ro/SSA positivity and dry eyes and mouth, the biopsy established the diagnosis of SjS. In patient 4 (59y) with SSs, negative anti-Ro/SSA antibodies and dry eyes/mouths, SjS could be excluded. In the corresponding ultrasound, all patients showed hypoechoic lesions and inhomogeneous parenchyma of major salivary glands reflecting OMERACT grade II-III SjS ultrasound score (4). No safety signals were observed. Patients with prior lip biopsies perceived ultrasound-guided CNB as preferable.

Conclusion: This pilot study suggests that ultrasound-guided CNB in SjS is a safe procedure with an excellent diagnostic yield allowing the diagnosis of lymphoma of the salivary glands, which is superior to lip biopsy. Given these encouraging results, we will now increase patient numbers for further validation.

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Vasculitis – large vessel vasculitis

POS0796

SURVIVAL OF GIANT CELL ARTERITIS PATIENTS IN SLOVENIA

A. Hočevcar^{1,2}, A. Viršček³, R. Jese¹, M. Tomsic^{1,2}, Z. Rotar^{1,2}. ¹University Medical Centre Ljubljana, Department of Rheumatology, Ljubljana, Slovenia; ²Medical Faculty, University of Ljubljana, Internal Medicine, Ljubljana, Slovenia; ³Statistical Office of the Republic of Slovenia, Ljubljana, Slovenia

Background: Recent meta-analysis reported no difference in the long-term mortality of GCA patients at a population level, but an increased mortality in hospital-based cohorts¹.

Objectives: The aim of our study was to evaluate for the first time the survival of GCA patients in Slovenia.

Methods: We included patients with clinical diagnosis of GCA supported by histology or imaging diagnosed between September 2011 and December 2019 and prospectively followed at our secondary/tertiary rheumatology center. To evaluate mortality the censor date of 24. June 2020 was used. Kaplan–Meier analysis was used to analyze mortality. Standardized mortality ratio (SMR) was calculated using data of age matched Slovenian population as the reference.

Results: Between September 2011 and December 2019 we identified 309 new GCA patients (203 (65.7%) females, median (IQR) age 74.9 (67.7–80.1.7), range 53.7 to 97.5 years). Patients were followed (until death or censor date) of a median (IQR) 33.3 (17.5–60.8) months. Until the censor date 51 (16.5%) GCA patients died (24 females, 27 males). We found no significant sex related differences in the net survival estimates during the first five years of follow up (p=0.68).

Figure 1 shows the survival curve of GCA patients and general population as a comparator according to Kaplan–Meier analysis. In the first year following GCA diagnosis the mortality rate was 1.9 times higher compared to general Slovenian population (95% CI 1.19 - 2.88, p=0.03). For patients who survived the first year after diagnosis the mortality was comparable to the general population (Table 1).

Figure 1. Survival curve according to Kaplan–Meier analysis in GCA

Table 1. Standardized mortality ratios of patients who survived the first year after diagnosing GCA (ie. were followed at least one year) compared to the general population

Years of FU	Observed deaths	Expected deaths	SMR (95%CI)	P-value
2	11	9.7	1.14 (0.57-2.03)	0.753
3	14	16.5	0.85 (0.46-1.43)	0.626
4	21	21.6	0.97 (0.60-1.49)	0.987
5	25	25.0	1.00 (0.65-1.48)	0.921
6	26	27.6	0.94 (0.61-1.38)	0.831

Legend: FU follow up; SMR Standardized mortality ratios; CI confidence interval

Conclusion: GCA patients had an increased risk of death in the first year from the GCA diagnosis.

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POS0797

LARGE VESSEL-GCA: A DIAGNOSTIC CHALLENGE

F. Regola¹, F. Franceschini¹, G. Bosio², P. Toniati¹. ¹ASST Spedali Civili and University of Brescia, Rheumatology and Clinical Immunology Unit, Brescia, Italy; ²ASST Spedali Civili, Nuclear Medicine Unit, Brescia, Italy

Background: GCA is the most frequent systemic vasculitis in patients older than 50 years involving medium-sized and large arteries. Inflammation of the extracranial branches of the carotid artery gives rise to the classic symptoms of GCA. However, in almost two-thirds of patients GCA involves also the aorta and its major branches (1,2). Large vessel involvement leads to a different atypical clinical picture which can be challenging to diagnose (3,4). More information on clinical presentation and vessel involvement in large-vessel GCA are needed to better diagnose it.

Objectives: To analyze clinical presentation of large-vessel GCA compared to classical cranial disease.

Methods: 100 consecutive patients with a clinical diagnosis of GCA were enrolled in this retrospective study. All patients were older than 50 years of age, met the ACR criteria for GCA or had a positive biopsy of the temporal artery or evidence of large vessel vasculitis at FDG-PET/CT scan.

Results: Based on vascular involvement, patients were classified into three groups: 61 patients with only cranial arteritis (C-GCA), 16 patients with only extracranial large vessel vasculitis (LV-GCA) and 23 patients with both cranial and large vessel involvement (LV-C-GCA).