Abstract P92 Table 1

Histological characteristics at 1st kidney biopsy	CYC group (n=72)	MMF group (n=40)	p-value
Presence of crescents (n,%)	17 (24.3)	3 (7.5)	**0.028**
Interstitial fibrosis (n,%)	54 (76.1)	19 (51.4)	**0.009**
Tubular atrophy (n,%)	56 (78.9)	20 (54.1)	**0.007**
Thrombotic microangiopathy (n,%)	7 (9.9)	3 (7.9)	0.738

regression analysis was performed to assess determinants of renal flares during follow-up.

Results 135 patients were included, of whom 107 completed a 12-month follow-up [82.2% female, median (IQR) age 38 (22), 35.5% with nephrotic range proteinuria at diagnosis]. Histologically, 13.6% had class III, 36.4% class IV, 18.9% class V, and 28% mixed class LN (III/IV +V). With SoC therapy [initial treatment 54.1% cyclophosphamide (CYC), (9.8% received Euro-Lupus), 30.1% mycophenolic acid (MPA), followed by maintenance], 73%, 82.9% and 84.4% achieved EULAR/ERA-EDTA renal response rates at 3, 6 and 12 months, respectively. Patients treated with CYC differed significantly in histological parameters compared to MPA (table 1). All patients received IV methylprednisolone at baseline [median (IQR) 2.0 (2.0) gr]. In class IV LN, median (IQR) daily prednisone starting dose was 50.0 (20.0) mg/day, and at 6 months 10.0 (10.0) mg. In class III and V LN, median (IQR) daily starting doses were lower, 40.0 (32.0) mg and 30.0 (25.0), respectively, whereas at 6 months median (IQR) doses were equal, 10.0 (15) mg and 10.0 (7.5), respectively. 22 (20%) patients experienced a flare during the first 12 months of follow-up; 4 (18.2%) and 7 (31.8%) patients were added or switched to a different immunosuppressive drug, respectively. Level of proteinuria at baseline was associated with increased risk for flare in univariate analysis (OR 1.18, p=0.025).

Conclusions Although the majority of LN patients achieve a complete response by 12 months, a considerable proportion experience flares that necessitate treatment modification to reach this target.

P93 INVESTIGATION OF CLINICAL AND LABORATORY CHARACTERISTICS AND SURVIVAL OF SLE PATIENTS WITH AND WITHOUT LUPUS NEPHRITIS

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10.1136/lupus-2024-el.147

Objective Lupus nephritis (LN) is one of the most severe organ manifestations in SLE. The aim of our study was to determine the incidence of LN and to compare the clinical characteristics, survival rate and outcome of SLE patients with and without LN. We also compared the data of patients diagnosed with LN before and after 2005.

Methods The patients were followed up between 1990 and 2020 at the Dept. of Clinical Immunology, Faculty of Medicine, University of Debrecen. We recorded the clinical and laboratory findings of the patients, as well as their immunosuppressive treatments.

Results Of 384 SLE patients, 127 had LN (33.07%). The age at the onset of SLE was significantly lower in patients with LN (p<0.001). Discoid lupus erythematosus (p<0.001) and subacute cutan lupus erythematosus (p=0.01) occurred more often in SLE patients without LN. Rheumatoid arthritis (p=0.009), antiphospholipid(p=0.044) and Sjögren's syndrome (p=0.017) were also more common in patients without LN. Anaemia (p<0.001) and anti-RNP positivity (p=0.049) were more common in patients with LN. Antimalarials (p=0.004) and methotrexate (p=0.001) were used more often in patients without LN, while rituximab (p<0.001), cyclophosphamide (p<0.001) and MMF (p<0.001) were more commonly used in LN group. LN did not significantly worsen the survival in SLE patients. Male gender was a negative prognostic factor in patients without LN. Remission status was a positive prognostic factor in patients with and without LN, but low disease activity significantly improved survival only in patients with LN. Sepsis-related mortality was higher in the LN group (p=0.031). The prevalence of serositis (p=0.007) and neurological manifestations of SLE (p=0.001) were decreased in patients with LN diagnosed after 2005. After 2005, the use of mycophenolate mofetil therapy increased (p<0.001). The use of cyclophsophamide and the cumulative steroid doses also decreased after 2005. The SLICC damage index score decreased after 2005 as well (p=0.001).

Conclusion Lupus nephritis did not influence disease outcome in our SLE patients. Low disease activity status significantly improves survival in LN but not in SLE patients without LN. The main therapeutic goal is to achieve remission in SLE patients with or without LN.

P94 LONG-TERM RENAL OUTCOME IN CHILDHOOD-ONSET LUPUS NEPHRITIS

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10.1136/lupus-2024-el.148

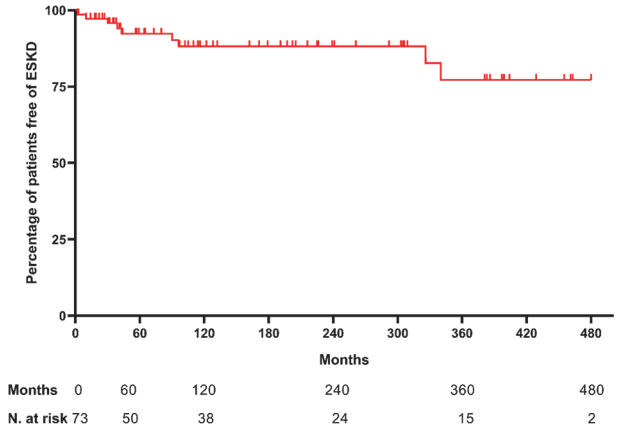
Objective Lupus nephritis (LN) is a common and severe complication of childhood-onset SLE. Little is known about the long-term renal outcome of childhood-onset LN. We investigated predictive factors of end-stage kidney disease (ESKD) and chronic kidney disease (CKD) in a paediatric cohort of patients with LN.

Methods This is a retrospective multicentre study including patients with childhood-onset (<18 years) biopsy-proven LN. Clinical features were analysed at disease onset, time of kidney biopsy, 12 and 24 months after biopsy, and last follow-up. We investigated the prognostic significance of clinical, laboratory and histologic characteristics on the incidence of ESKD and CKD stage 3–5.

Results We included 73 patients with a median age of 14 years (IQR 11.5–17). At the time of kidney biopsy, most

Abstract P94 Table 1 Predictors of ESKD. Univariable Cox regression analysis investigating clinical, laboratory and histologic predictors of ESKD

Variable	HR	95%CI	*P*-value
Age at LN onset	0.810	0.694 - 0.944	0.007
Female gender	0.314	0.087 - 1.126	0.075
ISN/RPS histological class III or IV	1.956	0.243 - 15.725	0.528
eGFR at kidney biopsy	0.967	0.943 - 0.991	0.008
24h proteinuria at kidney biopsy	1.018	0.928 - 1.117	0.704
24h proteinuria > 3g	0.864	0.203 - 3.684	0.843
Hypertension at kidney biopsy	1.283	0.359 - 4.584	0.701
Need for HD at kidney biopsy	5.541	0.664 - 46.237	0.114
C3 levels at kidney biopsy	1.010	0.984 - 1.036	0.459
C4 levels at kidney biopsy	0.974	0.866 - 1.096	0.666
Haematological involvement at kidney biopsy	3.588	0.740 - 17.395	0.113
Musculoskeletal involvement at kidney biopsy	0.427	0.114 - 1.605	0.208
Cutaneous involvement at kidney biopsy	0.943	0.248 - 3.582	0.931
CNS/PNS involvement at kidney biopsy	12.106	3.217 - 45.552	< 0.001
Serositis at kidney biopsy	3.396	0.911 - 12.657	0.069
SLEDAI2K at kidney biopsy	1.004	0.943 - 1.070	0.890
SLEDAI2K ≥ 25 at kidney biopsy	0.841	0.172 - 4.116	0.830



Abstract P94 Figure 1 Renal survival. Kaplan-Meier curve displaying the incidence of ESKD from the time of kidney biopsy

subjects displayed an aggressive disease: 2 (3%) children required haemodialysis, 27 (38%) had an estimated glomerular filtration rate (eGFR) <60 mL/min/1.73m^2. The overall median eGFR was 70 mL/min/1.73m^2 (IQR 43–96). Moreover, the median proteinuria was 4 g/24h (IQR 1.35–7.41), with 41 (59%) children displaying a nephrotic range proteinuria (i.e., >3 g/24h). The median follow-up was 13.3 years (IQR 4.7–25.4). A total of 10 patients (13.7%) reached ESKD, the majority of whom (12%) within 10 years from kidney biopsy; during the subsequent follow-up the incidence of ESKD stabilised (figure 1). At last follow-up, around 50% of patients displayed an eGFR <90 mL/min/1.73m^2. A younger age at LN onset, a lower eGFR and central nervous system involvement at the time of kidney biopsy were identified as predictors of ESKD by a univariable Cox regression model (table 1). The same features were significantly associated with the occurrence of CKD stage 3–5 at last follow-up at a univariable logistic regression analysis.

Conclusion LN often presents with severe kidney function impairment and aggressive systemic involvement in children. In our cohort, whose follow-up was among the longest reported in the literature, 12% of patients reached ESKD within 10 years from kidney biopsy. Significant predictors of poor kidney outcome in the long term were a younger age at LN onset, a lower eGFR and the presence of neurological manifestations at the time of kidney biopsy.

Acknowledgements No funding was received for the present study.

P95 FIRST TWO US PATIENTS WITH LUPUS NEPHRITIS (LN) TREATED WITH ANTI-CD19 CHIMERIC ANTIGEN RECEPTOR (CAR) T-CELL THERAPY: PRELIMINARY RESULTS FROM THE KYSA-1 PHASE 1, MULTICENTER STUDY OF KYV-101

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10.1136/lupus-2024-el.149

Objective LN is a major cause of morbidity and mortality in systemic lupus erythematosus (SLE). Anti-CD19 CAR T-cell therapy has demonstrated promising safety and efficacy in refractory LN (Mackensen, *Nat Med*, 2022). KYV-101 is a fully human autologous anti-CD19 CAR T-cell therapy designed and demonstrated to have a favorable safety profile (Brudno, *Nat Med*, 2020). This is a preliminary report of KYSA-1, an ongoing US phase 1, multicenter study of KYV-101 in refractory LN (NCT05938725).

Methods Adult patients with biopsy-proven class III or IV LN with inadequate response to ³2 conventional therapies are eligible. After apheresis and manufacturing, patients receive 3 days of lymphodepletion (LD) with fludarabine (30 mg/m^2/day) and cyclophosphamide (300 mg/m^2/day) starting on day –7 to –5, followed by a single infusion of KYV-101 on day 0 (dose level [DL] 1, 0.5×10^8 CAR T cells; DL2, 1×10^8 CAR T cells).