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### Clinical Characteristics and Outcomes of Children and Adolescents with Lupus Nephritis

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**Objectives :** Childhood-onset systemic lupus erythematosus (cSLE) is a rare and severe disease involving multiple target organ systems. Kidney involvement in cSLE remains an important predictor of long-term prognosis. The objectives of the study were to determine major adverse kidney events (MAKE) (eGFR <60 ml/min/1.73m<sup>2</sup> and/or mortality) at last follow-up with their predictors and describe clinical profile, histological parameters, disease flares, severe infections, and co-morbidities in lupus nephritis cohort

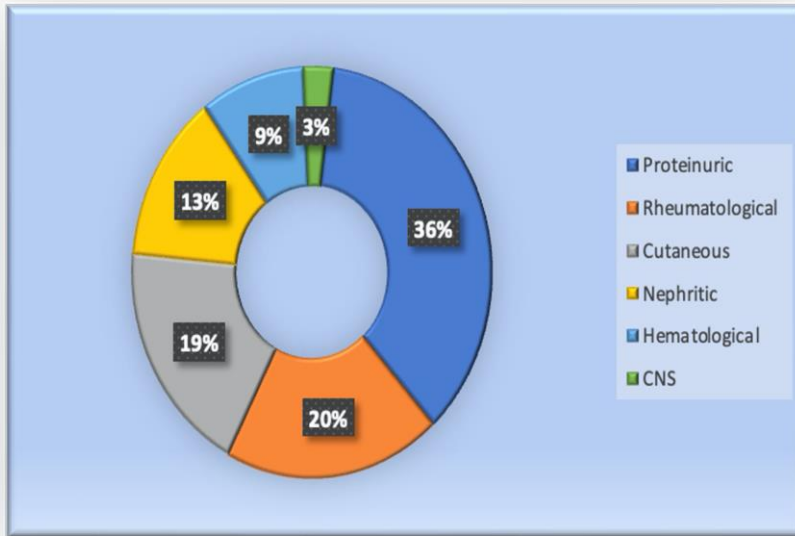
**Methods :** This study enrolled a cohort of children <18 years with biopsy-proven lupus nephritis followed from January 2010 till February 2024. Children diagnosed since January 2010 till March 2022 formed the retrospective cohort while consecutively presenting children from March 2022 formed the prospective cohort. All patients were followed 1-3 monthly in pediatric nephrology clinic and demographic, clinical, treatment and histological details were noted. MAKE were noted at last-follow-up. Cox regression analysis was performed to identify predictors of kidney survival time.

**Results :** Seventy-six children (79% girls) with median (IQR) age at diagnosis being 11 (9,13) years were studied. The clinical presentations were nephritic syndrome, mixed nephritic-nephrotic features, rapidly progressive glomerulonephritis (RPGN), and nephrotic syndrome in 24 (31.6%), 13 (17.1%), 11 (14.5%), 8 (10.5%) patients respectively. Proliferative lupus nephritis was the major histological subtype. There was no significant difference in outcomes among children who received intravenous cyclophosphamide vs. mycophenolate mofetil. At median last follow-up of 2.3 (1.3, 5.5) years with 93.4% kidney-survival rate, 41(51.9%), 22 (27.8%) and 13 (16.5%) were in CR, PR, and NR respectively. Kidney flares and progression to CKD stage 2-3 were significantly higher in PR vs. CR group. Eleven (14.4%) children had major adverse kidney events. RPGN at onset and cellular crescents predicted adverse outcomes

**Conclusions :** Response to immunosuppression predicted kidney survival in LN cohort. Both intravenous cyclophosphamide and mycophenolate mofetil are effective in inducing remission in class 3 and 4 lupus nephritis

Profile of flares Fig 1.png

Profile of flares in children with Lupus Nephritis



Profile of flares Fig 1.png

Severe infections in children with Lupus nephritis

