
This retrospective study was conducted in patients 18 years of age or below admitted to study the incidence, clinical presentation and outcome of acute kidney injury (AKI) in children with COVID-19 and Multisystem Inflammatory Syndrome. Total 152 children were included, out of which 97 had acute COVID-19 and 55 had COVID-19 and MIS-C. AKI occurred in 11.8% of children with acute COVID-19 and MIS-C. They had increased WBC counts and lower serum albumin levels on admission and decreased intravascular volume and distributive/ cardiogenic shock. In addition, pediatric COVID-19–related AKI was associated with poor outcomes, such as increased PICU and hospital length of stay. Their limitations were small sample size, retrospective study design, and most COVID-19 and MIS-C patients had a basic metabolic panel on presentation and during their hospital stay to assess for AKI. Utilization of serum creatinine without urine output and back-calculation of baseline creatinine values may have also underestimated the incidence of AKI. Therefore, further research in larger cohorts is needed to characterize AKI risk factors in children with acute COVID-19 and MIS-C.

Long term renal survival of pediatric patients with lupus nephritis (Nephrol Dial Transplant. 2021 Apr 7; gfab152)

This retrospective study conducted from 2000 till 2020 at Hacettepe University, tried to find out the clinical presentation, treatment options and renal prognosis in children with lupus nephritis. Data collected from medical charts and electronic records of 53 lupus nephritis children who had kidney biopsy at diagnosis. Overall, 52% had lupus nephritis (LN); class IV LN (54.7%) was most common followed by class III LN (22.6%). Around 77.3% and 73% of children received complete and partial remission at 6 and 12 months, respectively. Five-and-ten year renal survival rates were 92% and 85.7%, respectively. This study demonstrated that male gender, failure to achieve remission within 1 year after induction treatment and requiring dialysis at the time of diagnosis were the best predictors of poor renal outcome. Limited sample sign, retrospective study design, and bias in starting CYC for patients with more severe disease were some of the limitations reported. Prompt recognition and aggressive management of paediatric LN are essential to achieve and maintain remission.

Prophylactic rituximab administration in children with complicated nephrotic syndrome (Pediatr Nephrol. 2021;36:611-19)

Rituximab has been successfully used for maintaining remission in complicated nephrotic syndrome patients. This study evaluated the efficacy of prophylactic rituximab therapy for maintaining remission after B cell recovery has been achieved. This retrospective study enrolled children with steroid dependent and frequently relapsing nephrotic syndrome who had SRNS in past. They received single dose of rituximab at a dose of 375 mg/m² in addition to immunosuppressive therapy. Once they received B cell remission, these children were divided in to two groups: one who received additional dose of rituximab as prophylaxis (n=16) and other group who did not receive any prophylaxis (n=45). Fifty-percent relapse-free survival after the last rituximab treatment was 667 days in the rituximab group and 335 days in the other group (P=0.001). Multivariate analysis showed that additional rituximab treatment was the only significant negative factor for early relapse, with a hazard ratio of 0.40 (P= 0.02). Fifty-percent relapse-free survival after B cell recovery was much longer in the rituximab prophylaxis group (954 vs 205.5 days, P=0.003). Absence of randomisation, patients using calcineurin inhibitors were no comparable between the 2 groups, small sample size and selection bias were some of the limitations seen. Therefore, a prospective randomized study with an adequate sample size needs to be performed to verify the clinical advantages of additional rituximab treatment.


This multicentre, double-blind placebo controlled randomised controlled trial was conducted to evaluate the impact of erythropoietin on kidney related outcome in extremely low gestational age neonates (ELGANs) during hospitalization and at 22-26 months of corrected gestational age (CGA). Prevalence of severe (stage 2 or 3) AKI was 18.2 %. There was no statically significant difference in primary (severe AKI) or secondary renal outcomes (any AKI and serum creatinine/cystatin C values at days 0, 7, 9, and 14) between the groups during hospitalization. There were no significant differences in eGFR, albumin/creatinine ratio, rates of SBP >95th percentile, or DBP >90th or >95th percentiles at the 2-year follow-up visit between the two groups. Prevalence of AKI and renal complications were more in 22-26 months of CGA among ELGANs. Some limitations reported were that creatinine was not measured daily for some neonates, therefore, true AKI rate could be greater, the methods to capture kidney-related outcomes were not gold-standard methods, and a large number of patients did not have kidney-related metrics measured at the 2-year cGA time point. Therefore, studies using gold-standard measurements, studies that evaluate interventions to limit or prevent these outcomes, and evaluation of the most cost-effective methods for screening this high-risk population are greatly needed.

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