METHODS: We did a chart review of children aged 1 month to 17 years, admitted with a diagnosis of DKA in PICU between January, 2018- October, 2019. Data collection included demographic, clinical, laboratory and outcome related variables. AKI was defined as using Kidney Disease Improving Global Outcomes serum creatinine criteria. Data were analysed using Stata 11 software.

RESULTS: Out of 22 children admitted with DKA in PICU, 7 (31.8%) children developed AKI during the hospital stay. Among them, 6 (85.7%) had AKI at admission while one (14.3%) had AKI at 72 hours. 4 (57.1%) had AKI Stage 1, 2 (28.6%) had AKI Stage 2 and 1 (14.3%) had AKI stage 3. All 7 children with AKI recovered with hydration alone with median duration of recovery of 48 hrs (IQR-12, 192 hrs) without need of renal replacement therapy. Serum sodium at admission, pH and bicarbonate at 24 hours and presence of shock at admission were associated with AKI (p value<0.05 for all). Children with AKI had prolonged acidosis, increased need for mechanical ventilation, cerebral edema and longer PICU stay. However, AKI was not associated with increased mortality in our study.

CONCLUSIONS: All children with AKI and DKA recovered with hydration alone. Serum sodium at admission, pH and bicarbonate at 24 hours and presence of shock at admission predicted AKI in children with DKA.

P0146 / #1864

RATE, RISK FACTORS AND OUTCOME OF ACUTE KIDNEY INJURY IN CRITICALLY ILL CHILDREN WITH HEMATOLOGICAL MALIGNANCIES

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AIMS & OBJECTIVES: To assess the rate, risk factors and outcome of AKI in children with hematological malignancy admitted in pediatric Intensive care unit (PICU).

METHODS: Retrospective, cross-sectional study on critically ill children with hematological malignancies and developed AKI and admitted in PICU from July 2017 to June 2019. Demographic data, clinical profile, and outcome were included. AKI was defined according to Kidney Disease: Improving Global Outcomes (KIDGO) criteria

RESULTS: Of 399 critically ill children with hematological malignancy, 85 (31.33%) patients developed AKI. The mean age was 7.8±3.8 years and 66% were male of entire cohort. The most common diagnosis was Acute Lymphoblastic Leukemia (50%). Dialytic therapy was initiated in 9 patients (2.3%) only. The risk factors for AKI were Tumor Lysis Syndrome (p-value 0.001), exposure to nephrotoxic drugs (p <0.001) and age (p <0.001). Kaplan-Meier survival analysis showed median survival time in children with AKI was 11 days (95%CI- 7.6 – 14.4) while median survival time in children without AKI is significantly high (Log rank test- p-value <0.001). By multivariate analysis, AKI is independent risk factor for mortality [OR20.02; 95%CI 8.14-49.28; p <0.001].The mortality rate was 63.5% in patients with AKI and 8.6% in patients without AKI (p <0.001).

CONCLUSIONS: AKI occurred in 21.3% in critically ill children with hematological malignancies and is associated with age, organ dysfunction, sepsis, tumor lysis syndrome and exposure of nephrotoxic drugs. AKI is an independent risk factor for high mortality rate.

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TREATMENT TOXICITY IN CHILDREN WITH NON-HODGKIN LYMPHOMA

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AIMS & OBJECTIVES: To detect toxicity–related morbidity and mortality during the courses of therapy of Non-Hodgkin’s Lymphoma

METHODS: A prospective study of 43 patients with Non-Hodgkin lymphoma admitted to child welfare teaching hospital from January 1st till December 31st 2013, patients <14 years were included in the study, A modified LMB 96 regimen was employed. A complete analysis of the patient’s data was registered. The duration of observation was extended to March 31st 2014.

RESULTS: Forty patients were enrolled. The median age was 5 years, Male to female ratio was 2.6:1, Bulky disease was seen in 26(60.4%) patients, and the primary presenting site of involvement was the abdomen in 28 (65.1%) patients. Advanced stages were present in 42(97.7%) patients, and Burkitt’s subtype was diagnosed in 28(65.1%) cases. Cytological diagnosis was the tool in 25 (58%) patients. Patients were treated with modified UKCCSG LMB FAB96 protocol. Induction mortality was observed in 6(15%), another 8 patients died in the subsequent period. Deaths were mainly occurred due to tumor lysis syndrome in 3, severe infection in 2, CNS insult in 1, progressive disease in 6, iatrogenic death in 1 & unknown at home in one patient. The main toxicity was hematological in 89/189 (47%) cycles; febrile neutropenia in 74/189 (39%) episodes, followed by Gt in 51/189(27%) episodes, Tumor lysis syndrome was reported in 5 patients during COP1

CONCLUSIONS: Most of the patients presented with advanced stage. The provision of Rasbiuricase, the use of GCSF post-intensive courses, and treatment of patients by a multidisciplinary team to improve survival is crucial.