

ACUTE KIDNEY INJURY CAUSED BY DIABETIC KETOACIDOSIS IN CHILDREN WITH TYPE I DIABETES MELLITUS

Chan Jong Kim

Chonnam National University, South Korea

Acute kidney injury (AKI) is well known complication of diabetic ketoacidosis (DKA). However, only a few studies have focused on AKI caused by DKA in children with Type I diabetes mellitus (T1DM). This study aimed to assess incidence and clinical characteristics of AKI in children with DKA. Enrolled patients were divided into two groups with and without AKI on admission according to the Kidney Disease: Improving Global Outcomes (KDIGO) criteria. 83 patients were included in this study. According to the KDIGO criteria, 39 patients (47%) had AKI on admission. In our study, 71.8% of patients with AKI had stage 1, 20.5% had stage 2, 7.7% had stage 3, and there were no case of AKI requiring renal replacement therapy. Corrected sodium (Na) and calculated serum osmolality were also higher in AKI group. The patient with AKI had more severe stage of DKA on admission. In the binomial logistic regression analysis model, initial corrected sodium level of 145 mEq/L or greater was associated with a 6-fold increase in the odds of AKI. Severe DKA was associated with a 3-fold increase in the odds of AKI. There was no statistically significant difference between 3 stages of AKI severity. In our study, the incidence of AKI with DKA was 46.2%. Level of corrected sodium and severity of DKA are associated with the development of AKI. It can be possible tools in the recognition and management of AKI patients with DKA.

Biography

Chan Jong Kim has been graduated from Medical School of Chonnam National University as Medical Doctor, with the specialty including Pediatric Endocrinology and Metabolism. Presently he has been working at the Gwangju City.

cjkim@jnu.ac.kr