

ACUTE RENAL FAILURE IN CHILDREN. MULTICENTER PROSPECTIVE COHORT STUDY IN MEDIUM-COMPLEXITY INTENSIVE CARE UNITS FROM THE COLOMBIAN SOUTHEAST.

Restrepo JMa, Mongragon Mb, Forero-Delgadillo JMa(*), Lasso Ra, Zemanate Eb, Bravo Yb, Castillo Gb, Tetay Sb, Cabal Nb, Calvache JAb.

a. Department of Pediatric Nephrology, Fundación Valle del Lili, Cali, Colombia. b. Universidad del Cauca, Popayán, Cauca, Colombia.

(*) Mail: jessicaforero@unicauca.edu.co. Department of Pediatric Nephrology, Fundación Valle del Lili, Cali, Colombia.

Background: Acute kidney injury is frequent in critically ill children; however, it varies in causality and epidemiology according to the level of patient care complexity. A multicenter prospective cohort study was conducted in four medium-complexity pediatric intensive care units from the Colombian southeast aimed to estimate the clinical prognosis of patients with diagnosis of acute kidney injury.

Methods: We included children >28 days and <18 years of age, who were admitted with diagnosis of acute kidney injury classified by Kidney Disease Improving Global Outcomes (KDIGO), during the period from January to December 2017. Severe acute kidney injury was defined as stage 2 and stage 3 classifications. Maximum KDIGO was evaluated during the hospital stay and follow up. Length of hospital stay, use of mechanical ventilation and vasoactive drugs, use of renal replacement therapy, and mortality were assessed until discharge.

Results: Prevalence at admission of acute kidney injury was 5.2% (95%CI 4.3% to 6.2%). It was found that 71% of the patients had their maximum KDIGO on day one; an increment in the maximum stage of acute kidney injury increased the pediatric intensive care unit stay. Patients with maximum KDIGO 3 were associated with greater use of mechanical ventilation (47%), compared with maximum KDIGO 2 (37%) and maximum KDIGO 1 (16%). Eight patients with maximum KDIGO 2 and 14 with maximum KDIGO 3 required renal replacement therapy. Mortality was at 11.8% (95%CI 6.4% to 19.4%).

Conclusion: Acute kidney injury, established and classified according to KDIGO as severe and its maximum stage, was associated with worse clinical outcomes; early therapeutic efforts should focus on preventing the progression to severe stages.