Severe acute kidney injury in critically ill children: Epidemiology and prognostic factors [Daño renal agudo grave en niños críticos: epidemiología y factores pronósticos]

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Introduction Acute kidney injury (AKI) is a severe complication in critically ill children. The aim of the study was to describe the characteristics of AKI, as well as to analyse the prognostic factors for mortality and renal replacement therapy (RRT) in children admitted to Paediatric Intensive Care Units (PICUs) in Spain. Patients and methods Prospective observational multicentre study including children from 7 days to 16 years old who were admitted to a PICU. A univariate and multivariate logistic regression analysis of the risk factors for mortality and renal replacement therapy at PICU discharge were performed. Results A total of 139 cases of AKI were analysed. RRT was necessary in 60.1% of cases. Mortality rate was 32.6%. At PICU discharge RRT was necessary in 15% of survivors. Thrombopenia and low creatinine clearance values were prognostic markers of RRT at PICU discharge. High values of platelets, serum creatinine and weight were associated with higher survival. Conclusions Critically ill children with AKI had a high mortality and morbidity rate. Platelet values and creatinine clearance are markers of RRT at PICU discharge, whereas number of platelets, serum creatinine and weight were associated with mortality.

Acute kidney injury

Mortality

Outcome

Paediatric Intensive Care Units

Renal replacement therapy

creatinine

acute kidney failure

adolescent

Article

child

creatinine clearance

critically ill patient

hospital admission

hospital discharge

human

major clinical study

morbidity

mortality rate

multicenter study

multivariate logistic regression analysis

observational study

pediatric intensive care unit

prognosis

prospective study

renal replacement therapy

risk factor

Spain

survival

thrombocyte count

univariate analysis

Acute Kidney Injury

clinical trial

critical illness

infant

newborn

preschool child

Acute Kidney Injury

Adolescent

Child

Child, Preschool

Critical Illness

Humans

Infant

Infant, Newborn

Prognosis

Prospective Studies

Renal Replacement Therapy

Spain