Methods

We calculated cumulative fluid balance 3 days after ARDS onset in a multi-centre cohort. AKI was defined as ‘Injury’ or ‘Failure’ by pRIFLE criteria (Akcan-Arikan 2007).

Results

Patient characteristics are shown in Table 1. Mortality was higher in patients with AKI.

Fluid balance was associated with mortality independent of sex, age, race, PRISM 3 and vasopressor use; upon stratification, this association was limited to patients with AKI (Table 2 and Figure).

Conclusions

Day 3 cumulative fluid balance and AKI are associated with mortality. The association with fluid balance is limited to patients with AKI. This has important implications for fluid management in ARDS patients.

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NEURODEVELOPMENT WITHIN THE FIRST TWO YEARS AFTER IMPLEMENTATION OF THE EUROCONSORTIUM NEONATAL TREATMENT PROTOCOL IN CONGENITAL DIAPHRAGMATIC HERNIA PATIENTS: A MULTICENTER STUDY

1KG Snoek, 2I Capolupo, 3L Aite, 4A Braguglia, 5RMH Wijnen, 6L Valfrè, 7D Tibboel, 8H IJsselstijn. 1Department of Intensive Care and Paediatric Surgery, Erasmus MC Sophia Children’s Hospital, Rotterdam, Netherlands; 2Department of Medical and Surgical Neonatology, Bambino Gesù Children’s Hospital, Rome, Italy

Background

Since mortality in congenital diaphragmatic hernia (CDH) is decreasing, morbidity such as neurodevelopmental delay receives increased attention. We evaluated neurodevelopmental outcome in high-risk CDH patients treated according to the Euroconsortium standardised neonatal treatment protocol (Reiss, 2010).

Methods

Observational, prospective cohort study in CDH patients treated in two level-III university hospitals (Rotterdam (ECMO available) and Rome (no ECMO available)) between January 2009–April 2011. Sixty-three patients underwent standardised neurodevelopmental assessment at corrected age of 12 months by using Bayley Scales of Infant Development (BSID)-II-NL (Rotterdam; Dutch reference data) or BSID-III (Rome; US reference data). Both centres were analysed separately to differences in assessment instruments. Results are presented as n (%), mean (SD) or median (range).

Results

Mortality was 24.1% and 20.5% in Rotterdam and Rome, respectively. Baseline characteristics were for Rotterdam (n = 36)/Rome (n = 27): observed to expected lung-to-head ratio 53.8% (19.1)/55.4% (15.8), p = 0.67; SNAP-II score (19 (0–40)/7 (0–25), p < 0.001; chronic lung disease (i.e. oxygen dependency at day 28) in 15 (41.7%)/4 (14.8%), p = 0.14; length hospital stay 21 (6–387)/27 (15–82) days, p = 0.06. In Rotterdam four patients (11.1%) underwent ECMO treatment. Neurodevelopmental outcome is shown in Figure.

Conclusions

At two years, the majority of CDH patients have normal cognition, but they are at risk for motor function delay. Future multicenter collaboration should focus on continuation of standardisation of treatment and follow-up to identify risk factors and reduce morbidity.

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¿SHOULD BE LOOK AT TIDAL VOLUME/WEIGHT VALUE AS A PREDICTIVE FACTOR FOR NON-INVASIVE VENTILATION FAILURE?

1M Pons-Odena, 1L Pérez Baena, 1L Rodriguez Guerinau, 2C Pérez González, 3C Pérez González, 4C Pérez González, 5A Medina Villanueva, 6L López González, 7J Palanca Arias, 8J López-Herce, 9P García Ilizaga. 1PICU, Hospital Sant Joan de Déu, Barcelona, Spain; 2PICU, Hospital Universitario Central de Asturias, Oviedo, Spain; 3PICU, Hospital Universitario Gregorio Marañón, Madrid, Spain; 4PICU, Hospital Universitario Miguel Servet, Zaragoza, Spain

Background and aims

Expected normal tidal volume values have not been described in children treated on NIV yet. Describe