Outcome in critically ill neonates receiving continuous veno-venous haemofiltration (CVVH).

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Objective: To report the survival of neonates requiring CVVH.
Method: Neonates undergoing CVVH since 1997 were identified. Gestational age, weight, diagnosis and indication for CVVH were recorded for each patient. Pre-CVVH percent fluid overload (FO% = cumulative fluid balance (L) / body weight (Kg) x 100) and PRISM score were calculated. Outcome was measured in terms of survival to icu, and, hospital discharge.

Results: 24 neonatal episodes were identified. The median gestational age and weight of the patients was 37 weeks (range 32-42) and 2.7kg (range 1.3-4.7) respectively. All patients had multiple organ failure (median 3, range 2-5) at time of CVVH initiation. 6 patients with an inborn error of metabolism (IEM) required CVVH for removal of toxic metabolites. 18 patients received CVVH for one or more of the following; acidaemia, electrolyte disturbance or fluid overload. 10 neonates (42%) survived to icu discharge. 7 (29%) achieved hospital discharge. Neonates with an IEM had an icu and hospital survival of 67% and 50% respectively. This compared favourably to the outcome of neonates with non-IEM diagnoses of whom 33% survived their icu stay and 22% achieved hospital discharge. Pre-CVVH PRISM did not discriminate survivors from non-survivors p=0.31. %FO did not differ between non-survivors and survivors p=0.15.

Conclusions: CVVH in neonates is associated with a poor outcome. Survival was not associated with a lower %FO as has been reported in previous paediatric studies.

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