Experiences with CVVH as a new treatment modality in our paediatric and neonatal ICU

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Between March 2003 and December 2005 20 patients were treated with CVVH. Their age was between three days and sixteen years. Their weight was between 2,2 and 53 kg. Five infants were treated in combination with ECMO. The filters used on the PRISMA were M 10 (n=5), M 60 (n=13), M 100 (n=2). Vascular access was achieved through a dual lumen catheter in the femoral vein (n=10), jugular vein (n=2), subclavian vein (n=1), pulmonary artery (n=1), umbilical catheters (n=1), through the ECMO circuit (n=5). Heparin was used as anticoagulant. The treatment time varied between three hours and 16 days. Indication to start CVVH: acute renal failure with fluid overload (n=7), multiple organ failure (n=7), severe hyperammonemia (n=3), fluid overload (n=3). Underlying disorders: congenital heart defect (n=6), inborn error of metabolism (n=3), malignancy (n=3), faecal peritonitis (n=1), congenital diaphragmatic hernia (n=1), sepsis (n=2), HUS (n=1), autoimmune disorder (n=1), respiratory insufficiency due to RSV (n=1) and respiratory insufficiency of unknown cause (n=1). Results: 8 of the 20 children died. One child died short after starting CVVH due to cerebral herniation. In three children all treatment was discontinued. One child died because of multiple complications not related to CVVH. One child died 16 days after CVVH treatment due to respiratory failure. Two children died due to multiple organ failure. Twelve patients recovered well and were discharged from the intensive care.
Conclusion: CVVH is a new treatment modality in our pediatric and neonatal intensive care units. Its offers more expanded treatment options for very ill (small) children.

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