Initial experience with the introduction of a PCRRT program on a PICU

C Jacobi [1], M Krüger [1], U Kontny [1], M Pohl [1], C von Schnakenburg [1]

[1]Department of Pediatrics and Adolscent Medicine, University Hospital, Freiburg, Germany

Aim: Management and outcome of PCRRT are reviewed one year after introduction to the PICU.
Patients: 6 children, 2 ,Äì 14y, 3 with acute life threatening events (primary pulmonary hypertension, cardiogenic shock in long QT, toxic colitis) and 3 with immunosuppression (SCID pre stem cell transplant (SCT) , PTLD after heart transplant and PTLD after SCT and one newborn with urea cycle disorder were treated by PCRRT.
5 pts. had instable circulation (>2 pos. inotropic drugs) and were ventilated due to ALI (PaO2/FiO2 <300).
Indications for PCRRT were ARF with anuria and fluid overload (6 pts.), cardio-respiratory failure (5 pts.) and hyperammonemia (1 pt.)
Management: PCRRT was initiated via double lumen central venous catheter by dialysis staff using a Baxter BM25 system with bicarbonate substitute and heparin anticoagulation. When stable, the system was handed over to the PICU staff for monitoring of ACT, fluid bag exchanges, and emergency interventions.
Outcome: 3 pts survived (CVVH for 1, 4 + 5d), while 4 died after 1, 1, 3 + 7d. No catheter-associated problems occurred. During 500 hrs of PCRRT 21 filters were used (med. circuit life 23 hrs, filter failures not associated with anticoagulation, but with fluid bag exchanges and handling).
Summary: Our unit appreciates improved treatment options, although short term survival of our patients (3/7) was low as reported by others. Comfort with PCRRT increased over time, but acceptance by PICU staff is affected by outcome.

Corresponding author:
C von Schnakenburg
Zentrum für Kinderheilkunde und Jugenmedizin
Mathildenstr. 1
D-79109 Freiburg
Germany
christian.schnakenburg@uniklinik-freiburg.de
Phone: 00497612704488