Author's response to reviews

Title: A child presenting acute renal failure secondary to a high dose of indomethacin: a case report

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Version: 4 Date: 5 September 2008

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1. In our patient diagnosis of ARF was made by anuria without response to volume expansion and increase to diuretic treatment. We have corrected the mistake in urine output (ml/kg/h instead mg/kg/h). The patient was anuric during 8 hours at the moment to the beginning of continuous renal replacement therapy (CRRT). RIFLE criteria were not used because when the patient was diagnosed paediatric RIFLE criteria were no available. Moreover, in cardiac postoperative period is not adequate to reach the creatinine increase of RIFLE criteria to begin the CRRT. Several studies have showed that fluid balance previous to treatment is an important prognostic factor in children with ARF.

2. Hyponatremia:
   a) The patient was moderate hyponatremic at admission in the PICU from the neonatal PICU. Probably it was due to furosemide treatment at 0.4 mg/kg/h and relative hyponatremic fluids, although more studies in the neonatal PICU were not performed.
   b) The time between sodium of 132 and 121 mEq/L was 48 hours. There was no neurological clinical symptoms neither alterations in the cerebral ecography that suggested cerebral edema. We have added these data in the text. We think that severe hyponatremia was due to furosemide administration and water intoxication due to ARF secondary to indomethacin intoxication. The hyponatremia was treated with intravenous fluid according to the equation (135 – 121) x 0.6 x weight in 24 hours plus CRRT. We included these data in the text although we think is not essential in this clinical case.

3. The reason of CVVH was ARF with anuria and overload fluid in an infant in the postoperative period of cardiac surgery. In these patients the CRRT must be to begin early.

4. We have added a table with the evolution of creatinine, urea, sodium, potassium and urine output.

5. Discussion
   a) We do not agree with the reviewer that renal impairment in our patient was mild. The patient was anuric and need CRRT. The alteration was severe but
transitory. We think that the rapid CRRT permit an adequate treatment of ARF without complications.

b) We revised the program and corrected the error in the program

6. Minor comments

a) We have corrected the mistake. The patient was transferred from the NICU to the PICU.

b) The initial oedema probably was due to positive fluid balance in the previous days in the NICU.

c) We have corrected the mistake. 4 to 1.5 ml/kg/h

d) We have added that have no change in heart rate. SvO2 was not measured in the patient.

e) We have added the evolution of analytical data in table 1. However, serum creatinine is not a good marked of renal function in the critically ill children mainly in the postoperative period of cardiac surgery in infants.