

Clinical study of 23 pediatric sepsis cases performed polymyxin B-immobilized fiber column (single center study)

Kitayama H, Wada N, Yamada M, Uehara M
Matsumoto M, Uno Y, Kawasaki T, Inagaki T

(Introduction) We used PMX-05R(40ml for children) and PMX-20R(135ml, for adult) for 23 pediatric sepsis patients who have various back ground. (Method) We studied efficacy of PMX-05R and 20R for various factors. The factors are age, body weight, diagnosis, PELOD score, mortality, other blood purification, blood pressure and PaO₂/FiO₂(PF ratio). (Result) Average age was 3 year and 1 month. Average body weight was 11.6 kg. All patients were diagnosed Sepsis. Background diagnosis was congenital heart disease (ECMO 3 cases) (6 cases), intestinal disease (neonatal necrotizing enterocolitis, perforation of stomach) (5 cases), persistent pulmonary hypertension of newborn (3 cases), acute encephalopathy (4 cases), malignancy (2 cases), asphyxia at birth (2cases), congenital nephrotic syndrome (1case), inborn errors of metabolism(1 case), purulent meningitis (1case), VATER association(1case), acute pancreatitis(1case) and neurological disorder(11cases)(duplication+). Before performed PMX, average PELOD was 34.5 points. Estimated mortality was 0.938 due to PELOD. Practical mortality was 0.522. Kinds of blood purification are CHDF(19cases), CHD(2cases), CHF(2cases), PEX(3cases) and PMX-DHP(23cases). We could check blood pressure(18 cases). 13 cases blood pressure increased by 22.7 mmHg. 12 cases PF ratio could be checked. 9 cases PF ratio were under 200(ARDS). 2 cases PF ratio were from 200 to 300(ALI). 10 cases PF ratio increased to over 300 units after PMX. (conclusion)From 1997 to 2001, survival rate was 9.1% without PMX. From 2002, in this study, survival rate achieved to 47.8% with PMX. PMX had good influence on blood pressure and PF ratio. We thought that these effects made survival rate better.

address:860 Urushiyama Aoi-ku Shizuoka-city
Shizuoka-prefecture Japan
(Zip code;420-8660)
fax;81-54-247-6259
email; very.hiro@nifty.com
institution; Shizuoka children's hospital