

Clinical aspects of peritoneal dialysis in children with acute renal failure after correction of congenital heart defects

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ABSTRACT

Peritoneal dialysis (PD) is usually the preferred treatment method for pediatric patients awaiting kidney transplantation¹. Peritoneal dialysis is easier to perform, less invasive than extracorporeal dialysis methods and does not require anticoagulation. However, for the child himself and his family, it is first of all important that PD can be carried out at home. Fresenius Medical Care offers a wide range of dialysis systems adapted to the specific requirements of PD in pediatric patients: PD-Paed Plus system System sleep, safe harmony Solutions for peritoneal dialysis bicaVera and balance BCM (Monitor Component Body). However, the problem is the hemodynamic instability of this category of patients, and the simultaneous removal and introduction of a relatively large volume into the abdominal cavity is accompanied by an increase in intra-abdominal pressure, which entails hemodynamic disturbances. Furthermore, continuous administration of dialysis solution into the abdominal cavity also avoids significant leakage of the solution during exposure, which reduces the effectiveness of dialysis. The objective of this study is to present a comparative analysis of renal replacement therapy methods used in children and discuss the clinical case of using flow modification of peritoneal dialysis in children with acute kidney injury. In conclusion, conducting PD in children allows correcting electrolyte, metabolic disorders and water status. Flow modification of PD is the method of choice when conducting RRT, given the technical difficulties of ensuring abdominal cavity sealing and hemodynamic instability in children and control the multiple organ failure syndrome

Funding information
Self-funded

Conflict of interest
None declared by author

Keywords: Peritoneal Dialysis, Acute Renal Failure, Congenital Heart Defects, Clinical Outcomes

Citation:

Amelie E. Moser, Michael S. Neumann, Florian L. Koch. Clinical aspects of peritoneal dialysis in children with acute renal failure after correction of congenital heart defects. *AJMS* 2025; 11 (2): 103-112

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