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授課主題

Surgical Management of Neonates and Young Children with CHD

摘要

More and more children with CHD underwent surgical treatment in neonate or infant period because of progressive advance in preoperative diagnosis, technique of CPB, anesthesia, surgery, and postoperative care. This trend has created new challenges for staff in the ICU. In general terms, postoperative management of neonates and infants who have undergone either palliative or reparative cardiovascular surgery requires a clear understanding of the cardiac malformations, the extent of dysfunction that existed before the palliation or repair, the operative procedure, all events during the surgery that conceivably could influence the postoperative course, and finally the hemodynamics and metabolic conditions that existed immediately after the operation.

Ultrafiltration and modified ultrafiltration are effective methods for removing excess fluid which accumulates during CPB. Adequate anatomic correction and meticulous hemostasis are the most important things before the patient leaving the operative room. For critical ill patients, delayed sternal closure, prophylactic peritoneal dialysis, and prolong anesthesia make the postoperative care easier and the postoperative course will be more smooth.

Support of failing cardiorespiratory function in patients who have undergone correction or palliation of congenital heart disease remains a difficult clinical problem. Extracorporeal membrane oxygenation (ECMO) provides effective support for postoperative cardiac and pulmonary failure refractory to medical management. The use of ECMO in pediatric populations for transient postoperative ventricular dysfunction improves survival with limited overall morbidity.