Intermediate-Term Results of Extracorporeal Membrane Oxygenation Support Following Congenital Heart Surgery

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Background/Hypothesis:
There is considerable data regarding in-hospital results of congenital heart surgery patients requiring post-cardiotomy extracorporeal membrane oxygenation (ECMO) support; however, there is limited information on mid-term outcomes.

Materials and Methods:
- Single institutional retrospective review
- 25 consecutive post-cardiotomy ECMO patients surviving to hospital discharge
- January 2003 to June 2008

Primary endpoint
- Survival at last follow-up

Secondary endpoints
- Neurological deficits
- Renal injury
- Respiratory failure
- Unplanned cardiac re-interventions
- Unplanned hospitalizations
- Postoperative medical technology dependence
- Systemic Ventricular Function at follow up

Results:
- Median age at ECMO: 4 months
- Median follow up: 3.3 years (Interquartile Range: 1.2-5.9 yrs).
- Patient survival: 95% at 3 years (95% CI: 90%-100%).

Conclusion:
Intermediate-term post-cardiotomy ECMO patient survival encouraging. Neurological impairment and unplanned cardiac re-interventions remain significant concerns.