

Heart transplantation in infants and children on mechanical ventricular support

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The aim of this study was to analyze the posttransplant outcome of children and infants on ventricular assist device (VAD) successfully bridged to heart transplantation (HT)

Methods : This is a retrospective analysis of demographics, clinical data and short and long-term outcomes of all patients < 18 years of age who underwent VAD support as a bridge to transplantation

Results : 21 patients (8 males) who were placed on VAD for uncontrolled HF, from 2005 to 2015 were included in the study. Mean age at VAD was 5.6 years (median 3y), mean duration of VAD was 30 days, and mean age at HT was 5.8 years (median 2.8y). Two cases experienced stroke while on VAD and 1 severe digestive haemorrhage occurred. Underlying cardiac disease was a dilated cardiomyopathy in 19 and congenital heart disease in 2. Three deaths occurred (14.2%): one early posttransplant from primary graft dysfunction and 2 late at 2 and 8 years posttransplant from severe sepsis. No early acute rejections occurred. One patient had severe late humoral acute rejection and developed donor-specific HLA antibodies. All the other patients have normal graft function and are in NYHA class I at a mean follow up is 4.5 years, range 3 months to 9.5y. One-year, 5 years and 10 years survival rates are respectively 95%, 89% and 65%

Conclusion: Post-transplant outcome of children and infants on VAD support is favourable with very low incidence of infection and acute rejection.