PW3-11

Results of pediatric heart transplantation after 15 and 20 years: How are they now?

Behnke-Hall K., Bauer J., Thul J., Logeswaran T., Akintuerk H., Valeske K., Schranz D.
Pediatric Heart Center of the University of Giessen, Germany

Introduction:
Pediatric heart transplantation (HTX) has been a well respected procedure for end-stage heart disease for the past 30 years. Besides the improved survival in the last years, the long-term outcome is influenced by rejections, posttransplant lymphoproliferative disease (PTLD), chronic renal insufficiency, graft coronary artery disease and retransplantation. Therefore, we focused on morbidities in survivors of more than 15 years after HTX.
Methods:
Patients (pts) with a pediatric heart transplantation before 1995, in our institution, were retrospectively reviewed.
Results:
There were 30 pts transplanted more than 15 years ago, of those, 6 were more than 20 years ago. The mean age at time of HTX was 1.83 years (range 0.08-15.6). 23 pts (80%) were under the age of two years. Diagnosis which lead to HTX was: a complex congenital heart defect (66.6%) and cardiomyopathy (23.4%). There were 48 rejection episodes, most of them in the first 6 months after HTX. 3 pts suffered from PTLD, 2 had a relapse. All pts have a mild chronic renal insufficiency with a mean GFR of 92.4ml/min/m2 (+/- 19.78) after 15 and 82.06ml/min/m2 (+/- 28.48) after 20 years. One pt needed kidney transplantation. 2 pts had severe coronary artery disease, followed by a re-HTX in one pt after 20 years.
13 pts died. There was an early death within one month after transplantation in 66.6%, mostly due to graft failure (n=5). Late death occurred in 33.4%, after rejection in 3 pts and PTLD in 1 pt.
Of the 30 pts, 58.7% are still alive after 20 years. Immunosuppression is based on a calcineurininhibitor in 52.9%, with a majority of 77.7% with tacrolimus. The remaining pts (47.1%) are treated with an CNI-free mTOR-inhibitor regime. All pts have a steroid-free regime at 3-6 months after HTX.
Conclusion:
Morbidities in pediatric heart transplantation are challenging: Rejections mostly occur in the first 6 months after HTX. Chronic renal insufficiency, malignancy and coronary artery disease will add on by time. Tailored use of immunosuppressants, as influencing factor, might be the key factor in reducing the morbidities.