

## MP3-1

### Cardiomyopathy versus congenital heart diseases - 10 years in pediatric heart transplantation

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Introduction: Pediatric heart transplant (htx) program was established 10 years ago in Hungary. The results of htx were analyzed regarding the underlying diseases (cardiomyopathy – CM versus congenital heart diseases - CHD).

Methods: 32 pediatric htx were performed between 2007 and 2016 in our center (m/f: 16/16, CM/CHD:21/11). Mean age was 9 yrs in CM pts (group 1.) and 8.4 yrs in CHD pts (group 2.) at time of htx. Need for prae-htx ventricle assist device (VAD), short and long-term mortality, complications, post-htx rejection, transplant-related morbidities were examined.

Results: Almost every children had previous surgery in the CHD group (10/11). Need for praetransplant VAD was higher in the CM group (8/21 versus 1/11 cases,  $p < 0.01$ ). All transplants were successfully performed, no early mortality (<6 months post-htx) was observed. Mean follow-up time was shorter in the CHD group (52 versus 32 months,  $p = 0.04$ ). 5 children died in the CM group during the follow-up, compared to only 1 child in the CHD group (5/21 versus 1/11,  $p = 0.63$ ). There was no significant difference between the 2 groups in rejection (4/21 vs 3/11,  $p = 0.66$ ) required anti-rejection therapy (ISHLT grade  $\geq 2R$  or/and antibody-mediated rejection - AMR). From the CM group 2 children died due to complications of severe rejection requiring VAD. Chronic graft failure developed in a highly sensitized patient from the CHD group due to recurrent episode of AMR. There were no significant differences in cytomegalovirus (CMV) and Epstein-Barr virus (EBV) replication/infection required specific therapy between the 2 groups (CMV 3/21 versus 1/11 –  $p = 0.67$ , EBV 4/21 versus 2/11 –  $p = 0.95$ ). CMV was fatal in 1 case, one further patient died because of EBV-associated posttransplant lymphoproliferative disease (PTLD). Incidence of diabetes mellitus (DM) and autoimmune diseases (AD) were similar in both groups (group 1.: 2 DM, 2 AD, group 2.: 1 DM, 1 AD).

Conclusions: Htx is a good and durable option for children with end-stage heart failure. Higher late mortality rate was observed in the CM group. Longer follow-up time and more frequent need for praetransplant VAD in the CM group can explain the differences.