

JOINT EVENT

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## Lale Hakami

University of Munich, Germany

### Single center results after cardiac transplantation in infants and small children

**Objectives:** Heart transplantation is the last surgical option for infants and young children with congenital heart failure after failed conventional repair or palliative procedures. We aim to present our results in a retrospective and descriptive analysis.

**Methods:** 18 heart transplantations on children (nine female, nine male) were performed from 1988 to 2015. The range of age was between 0 days and 3 years. Indications for a transplantation were hypoplastic left heart syndrome (n=14), non-compaction-syndrome (n=2), Bland-White-Garland-syndrome (n=1) and transposition of the great arteries (n=1). 14 children (78%) had had a previous cardiac surgery. Four patients (22%) required mechanical circulatory support for bridging: ECMO (n=2; 11%), or LVAD and ECMO (n=2; 11%). 15 (83%) underwent a biatrial method, three (17%) a bicaval one.

**Results:** The median waiting time after listing was 68 days (min: 0 days, max: 386 days, standard deviation (SD): 102.8 days). The overall survival was 61%, 13 children (72%) survived the first year. Two patients (11%) had a retransplantation. The median time patients spent at intensive care unit was 17 days (min: 1 day; max: 121 days). They were respirated for seven days (min: 1 day; max: 91 days). Perioperative factors we analyzed were: the median myocardial ischemia time was 236 minutes; the median aortic clamp time was 95 minutes and the median time of circulatory arrest was 60 minutes. Three children (17%) got a pericardial effusion. Two patients (11%) suffered each: bleeding, cardiac arrhythmias, diaphragmatic paresis and cerebral complications. Five (28%) got a lymphoproliferative disease. Seven children (39%) got a coronary graft vasculopathy. Two (11%) needed interventional therapy. Three (17%) got a cardiac pace maker. According to our data, six children had a rejection which called for treatment.

**Conclusion:** Heart transplantation is still the best therapeutic option after end-stage heart failure in children. Cumulative results suggest one additional year of life in more than 70% and a survival of more than 20 years are possible. These results were comparable to those of the ISHLT registry in pediatrics.

### Biography

Lale Hakami has her expertise in pediatric cardiac surgery in infants and newborn. She is a German-board-certified cardiac surgeon with a subspecialization in pediatric cardiac surgery. From 2006-2008, she was the junior consultant of the Congenital Heart Surgery at the University Hospital Erlangen/Germany. From 2008-2009, she was Research Fellowship at the Children's Hospital Boston/USA. From 2009 to 2011 she was director of pediatric cardiac surgery in Mainz/Germany. From 2011-2014 she was senior consultant in children heart center in Linz/Austria. From 2014 she is senior consultant at the University Hospital Munich/Germany and University Lecture of Pediatric Cardiac Surgery at Ludwig-Maximilians-University Munich/Germany (LMU). Her particular experience is in single ventricle physiology and heart transplantation in infants and newborn.