

P-324

Long-term outcome after repair of complete atrio-ventricular septal defect : A 30-year experience in a single institution

*Carbonez K. , Martin M., Moniotte S., Sluysmans Th., Barrea C., Rubay J., Poncelet A.
Cliniques universitaires saint-Luc UCL, Brussels, Belgium.*

Objectives: Atrio-ventricular septal defect (AVSD) can be repaired successfully during infancy. Cardiac event-free survival depends on the durability of left AV valve repair. In this retrospective study, we analyzed patients and operative characteristics as prognostic factors for long-term cardiac-related morbidity.

Methods: We identified 152 patients operated on between 1976 and 2008 for isolated complete AVSD. Eighty patients (54%) underwent surgical repair using a double-patch technique. From 1976 to 1994, deep hypothermia was routinely used whereas since 1995, moderate hypothermia/normothermia was used. Study endpoints were overall survival, freedom from left AV valve reoperation, freedom from MR >2, and freedom from any reoperation. Univariate Cox regression analysis was used to identify prognostic factors. Mean follow-up time was 83 months [0.2-356].

Results: Median age and weight at surgery were 6.3 months and 5.2 kg. Associated cardiac malformations (arch hypoplasia/coarctation, PDA) were diagnosed in 49 patients (32%). In-hospital mortality was 18.4% (28/152), 24.4% for children operated before 1995, 9.7 % for children operated since 1995. Actuarial 15-yr survival was 76,2%. There were five early and nine late re-operations (six mitral re-repair, two LVOT and one RVOT obstructions), accounting for a reoperation-free survival of 90.2% at 15 years. At 15-years, freedom from MR greater than 2 was 82.6%. The use of deep hypothermia (HR 4.8), the presence of postoperative pulmonary hypertensive crisis (HR 2.1) and associated PDA (HR 2.1) were independent risk factors affecting survival. Residual MR greater than 2 also significantly impacted on survival (HR 4.2) and reoperation-free survival (HR 9.3). Repair before 6 months of age was predictive of left AV valve reoperation (HR 3.6).

Conclusions: Conclusions: This study confirms that AVSDs can be durably repaired in infancy whereas cardiac-related events are not unusual 15 years after repair. Most efforts should be pursued to optimize mitral repair at initial surgery. In addition, this study shows that most repair failures can be adequately addressed using valve-preserving strategies