



Congenital Heart Disease

LONG-TERM SURVIVAL AND NEED FOR REOPERATION AFTER SURGICAL REPAIR OF COMPLETE ATRIOVENTRICULAR SEPTAL DEFECT: 40 YEAR FOLLOW-UP AT A SINGLE INSTITUTION

Oral Contributions

Room 146 A

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Background: Decreased perioperative mortality over the past several decades, has produced a growing population of adults with repaired complete atrioventricular septal defect (CAVSD). However, early reports suggest a risk for reoperation at short and mid-term follow-up to address left atrioventricular valve (LAVV) regurgitation and subaortic obstruction. Whether the need for reoperation persists in the long-term after CAVSD repair is unknown. The present study reviewed the long-term survival, need for reoperation, and risk factors after CAVSD repair.

Methods: Between 1974 and 2000, 220 patients underwent surgical repair for CAVSD at our institution. A total of 184 patients survived to hospital discharge and had available follow-up data at a median post-operative duration of 16 years (2 months to 40 years).

Results: Associated diagnoses for the 220 CAVSD patients include Down syndrome in 171 (78%) and tetralogy of Fallot (TOF) in 22 (10%). Overall perioperative mortality was 10%, with a significant decrease to 3% in the late surgical era 1991 to 2000 ($p < 0.001$). For the 184 hospital survivors, the long-term survival was 96%, 92%, and 77% at 10, 20, and 30 years, respectively. Risk factors for late mortality include early surgical era ($p = 0.004$) and requiring a reoperation after initial repair ($p = 0.005$). A total of 39 patients (21%) required at least 1 reoperation. The estimated freedom from reoperation was 88% at 10 years, 83% at 20 years, and 78% at 30 years. Risk factors for reoperation include early surgical era ($p = 0.007$), non-Down syndrome ($p = 0.04$), and TOF ($p < 0.0001$). Indications for reoperation included LAVV regurgitation in 17 (9.1%) patients at a median follow-up of 2 years (1 month to 19.7 years), and subaortic obstruction in 9 (4.8%) patients at a median follow-up of 9.4 years (2 years to 13.5 years).

Conclusions: Long-term survival following repair of CAVSD remains good, however, survivors are at risk for reoperation. The majority of reoperations appear to occur within the first two decades following initial repair. Early surgical era and associated diagnoses influence long-term survival and need for reoperation after CAVSD repair.