

Functional results (midterm) after double switch operation in congenitally corrected transposition of great arteries.

Vazaios C. (1), Kántorová A. (1), Valentík P. (1), Šagát M. (1), Nagi A.S. (1), Sabateen F. (1), Nosal M. (1)

Children 's Cardiac center of Bratislava, Department of Cardiac Surgery, Bratislava Slovakia

Introduction: Surgical therapy of CCTGA currently aims at re-establishing anatomically favourable hemodynamic by Senning-Rastelli (SR) or Senning-Switch (SS) procedure. In our study we summarise the midterm results of patients who underwent anatomical correction of CCTGA.

Methods: We retrospectively analysed our results with patients who underwent SS or SR operation from 1991 until 2017 with a median follow up of 6 years. Post-operative follow up echocardiographic data were collected and evaluated for every patient along with 10-year survival and 10 year freedom from reoperation.

Results: Out of 11 patients who underwent final surgery for CCTGA, 8 patients underwent anatomic correction in our centre (3 underwent single ventricle palliation). Five patients had S,L,L and 3 I,D,D segmental anatomy. Ventricular septal defects were present in 7 patients. Pulmonary atresia was present in 4 patients, 1 patient had valvar pulmonary stenosis. Left ventricular retraining using pulmonary artery banding was used in 3 patients. Median time of LV retraining was 625 days (1,7years). Six patients underwent Senning-Rastelli procedure and 2 patients Senning-switch. The survival at 10-years is 100%. There were 4 reoperations, 2 conduit replacements and 2 for other cause. Overall freedom from redo is 45% at ten years. At the latest echocardiography follow up all patients have normal left ventricular function. There was no neoartical insufficiency in both patients after arterial switch. Tricuspid insufficiency of second degree is found in 2 patients. Atrial baffles are unobstructed in all patients. Post-operative arrhythmias were diagnosed in 2 patients with one of them diagnosed with supraventricular tachycardia and AV-block in the other patient. Three patients presented with spontaneous AV-block. All patients are in NYHA I functional class.

Conclusions: Midterm results after anatomical correction of CCTGA are excellent. Half of our patients required reoperation within 10 years, which were mostly conduit replacements after SR procedure. All patients are in good clinical condition without any major anatomical residua. The incidence of complete AV block is mostly spontaneous within the expected range.