Predictors for biventricular repair in pulmonary atresia with intact ventricular septum.

BACKGROUND: Pulmonary atresia with intact ventricular septum (PA-IVS) is a complex congenital heart defect with a large variety of right heart-sided morphologies. METHODS: We undertook a retrospective review of 86 patients with PA-IVS with a special emphasis on the angiographic findings. The aim of the study was to determine predictors for biventricular repair. Initial surgical procedures depended on the right ventricular morphology, the tricuspid valve size and coronary anomalies. RESULTS: Fifty-five patients (64%) underwent decompression of the right ventricle (RV) as an initial procedure; 16 of them required an additional systemic-to-pulmonary artery shunt. Twenty-six patients (30%) had only a systemic-to-pulmonary artery shunt as their initial procedure. Five patients underwent interventional procedures performed by pediatric cardiologists. Biventricular repair was possible in 56 patients (65%). Univentricular palliation was achieved in 16 patients. Fourteen patients had only palliation with a systemic-to-pulmonary artery shunt. Mean tricuspid valve size was significantly bigger in patients with biventricular repair (z-score -3.6 +/- 2.6) than in patients who did not undergo biventricular repair (-5.2 +/- 1.7, P = 0.003). Predictors for biventricular repair were right ventricular decompression with or without systemic-to-pulmonary artery shunt (P< 0.001), tripartite right ventricle (P< 0.001) and the absence
of coronary fistulae (P < 0.001). Long-term survival was 80% +/- 13% at 25 years for patients undergoing biventricular repair. CONCLUSIONS: Decompression of the RV as an initial surgical procedure improves the possibility of achieving biventricular repair with good long-term results. However, morphological factors such as right ventricular size and the absence of coronary fistulae are significant predictors for biventricular repair.

Zeitschriftentitel / Abkürzung: Thorac Cardiovasc Surg

Jahr: 2010

Band: 58

Heft / Issue: 6

Seiten: 339-44

Sprache: eng


Print-ISSN: 0171-6425

TUM Einrichtung: chirurgie; r Kinderkardiologie und angeborene Herzfehler; r Medizinische Statistik und Epidemiologie

Occurences:

· Einrichtungen > Fakultäten > Fakultät für Medizin > Kliniken und Institute > Lehr- und Forschungskooperationen mit den Kliniken und Instituten am Deutschen Herzzentrum > Klinik für Kinderkardiologie und angeborene Herzfehler (Prof. Hess) > 2010

· Einrichtungen > Fakultäten > Fakultät für Medizin > Kliniken und Institute > Institut für Medizinische Statistik und Epidemiologie > 2010

· Einrichtungen > Fakultäten > Fakultät für Medizin > Kliniken und Institute > Lehr- und Forschungskooperationen mit den Kliniken und Instituten am Deutschen Herzzentrum > Klinik für Herz- und Gefäßchirurgie (Prof. Lange) > 2010

entries: