

The Evaluation of Patients with Corrected Transposition of Great Arteries with Situs Inversus

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Introduction: The aim of the study is to evaluate a rare group of cardiac malformations followed with the diagnosis of congenitally corrected transposition the great arteries (ccTGA) and situs inversus (SI). Here we present the features and follow-up data of this rare group of patients.

Methods: Records of the 110 patients with ccTGA were retrospectively evaluated. Age, gender, associated cardiac defects, surgical history, heart block, arrhythmias, systemic AV valve regurgitation of the ccTGA patients with SI were recorded.

Results: The median age of the 14 patients with SI was 43.3 months (4 days-18 years). 12 patients (85,7%) have hemodynamically significant associated lesions where 2 patients were isolated SI-ccTGA. Hemodynamically 9 of the patients were planned to be directed to biventricular correction where univentricular circulation was planned in 5 patients. During the follow-up period [median 43 months (9-84 months)]; 5 patients with associated lesions were operated. 2 patients died, one preoperatively, one after an aortopulmonary shunt procedure. Complete AV block was developed in a patient after surgical VSD closure and an immediate pacemaker implanted. Cardiac Resynchronisation Therapy was performed due to ventricular dysfunction during the postoperative follow-up to the same patient. There was no detected spontaneous AV block or arrhythmia except the supraventricular tachycardia detected in a patient that was ablated successfully.

Feature	Patient
Cardiac Apex	
Dextrocardia	7(50%)
Levocardia	4(25%)
Mezocardia	4(25%)
Associated lesions	12(85,7%)
Ventricular Septal Defect (large)	10(71,4%)
Congestive Heart Failure (Yes/No)	1/14
Right Ventricular Dysfunction	1/14
Left Ventricular Dysfunction	1/14

Conclusion: The clinical presentation and survival are in fact dependant on the the associated defect and conduction abnormalities in this patients. The risk of AV block in ccTGA patients with SI seems to be lower than situs solitus ones due to near normal conduction pathways in SI patients.