

## The evaluation of rhythm and conduction disturbances in congenitally corrected transposition of the great arteries

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**Background:** In this study, we aimed to evaluate the rhythm problems and management of patients with congenitally corrected transposition of the great arteries(ccTGA).

**Patients and Methods:** The records of 93 ccTGA patients were reviewed retrospectively between 2009-2015 and 53 patients with regular ECG, ECHO, Holter monitorization and clinic follow-up data were found eligible for the study.

**Results:** 22 female, 31 male patients were included in the study. The median age at admission was 4.5 years (ranging 7 days to 47 years). Out of 53 patients, 13 (25%) were isolated ccTGA. Atrioventricular (AV) conduction problem in 19 (35%) of the patients, atrial arrhythmia in 12 (22%) of the patients were detected at initial ECG, ECHO and HOLTER evaluations. There was initially 7 (13%) patients who had pacemaker implanted due to complete AV block. No ventricular arrhythmia was detected (Table I). The median follow-up of patients was 34 months (ranging 7 months to 6 years). During follow-up, pacemaker was implanted to 2 patients with isolated ccTGA and 2 patients with postoperative AV block operated due to associated lesions. Electrophysiologic study and ablation was performed to 3 patients with Wolff-Parkinson-White and supraventricular tachycardia. Patients are still on clinical follow-up.

**Conclusion:** As there is an increase risk of spontaneous atrioventricular block and atrial arrhythmias in ccTGA patients, 24 hours Holter monitorization should be a part of routine follow up of these patients even with normal preceding reports. Early diagnosis and treatment will decrease morbidity and mortality.

Table I: The initial ECG and Holter findings of patients

The initial ECG and Holter findings of patients		n= 53
Normal		24
Conduction Abnormalities		19
	First Degree Atrioventricular block	4
	2:1 Second Degree Atrioventricular block	3
	Complete Atrioventricular block	3
	Bundle Branch Block	2
	Pacemaker	7
Supraventricular arrhythmia		14
	Wolff-Parkinson-White	2
	Ectopic Atrial Rhythm	6
	Premature atrial contraction	3
	Focal atrial tachycardia	3
Ventricular arrhythmia		0
*Total number of rhythm disorders		33

\*There were more than one rhythm problems in some of the patients.