

JCK E-Oral Presentation

JCK E-Oral Presentation 2 (III-JCKEOP02)

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Sun. Jul 9, 2017 1:00 PM - 2:00 PM E-Oral Presentation Area (Exhibition and Event Hall)

1:00 PM - 2:00 PM

[III-JCKEOP02-07] Long-term Surgical Outcome of Transposition of the Great Arteries with Intact Ventricular Septum and Left Ventricular Outflow Tract Obstruction

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Objective

Left ventricular outflow tract obstruction (LVOTO) is sometimes combined with transposition of the great arteries (TGA) with intact ventricular septum (IVS). The purpose of this study is to evaluate the long-term surgical outcome of TGA with IVS and LVOTO.

Patients

Between 1980 and 2016, 13 patients who underwent the surgical repair for TGA with IVS and LVOTO (peak gradient on LVOT > 30 mmHg) were retrospectively reviewed. Type of LVOTO included subaortic in 7 and valvular in 6. Age at definitive repair was 37.5 ± 42.5 month-old, and body weight was 6.8 ± 3.8 kg. Definitive operation included Senning operation in 10, arterial switch operation in 1, truncal switch operation in 1 and modified Fontan operation in 1.

Results

Follow-up period was 19.6 ± 7.4 years. There was no hospital death and 1 late death. The survival rate was 90.0% at 20 years. Re-intervention was performed in 4 patients. Freedom from re-intervention was 66.7 % at 20 years. Latest angiography revealed LVOT peak gradient of 8.2 ± 8.4 mmHg, and systemic ventricular ejection fraction of 53.1 ± 11.8 %. Latest echocardiography revealed moderate tricuspid valve regurgitation in 1, and LVOT flow of 1.7 ± 0.4 m/s. Three patients showed atrioventricular rhythm disturbance in electrocardiogram.

Conclusions

Long-term surgical outcome of TGA with IVS and LVOTO was satisfactory in terms of the relief of LVOTO. However, the further careful observation is mandatory because some patients may present tricuspid valve regurgitation and rhythm disturbance associated with systemic ventricular dysfunction in the late period.