

JCK Poster

## JCK Poster 4 (III-JCKP4)

### Cardiac Surgery

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

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1:00 PM - 2:00 PM

### [III-JCKP4-10]Risk factors for systemic outflow relief operation in Double inlet left ventricle or tricuspid atresia with transposition of the great arteries

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**Objectives:** In patients with double inlet left ventricle (DILV) or tricuspid atresia (TA) with transposition of the great arteries (TGA), arch obstruction (AO) has been known to be the risk factor for the development of subaortic stenosis. However, patients without AO may also develop SAS in the course of Fontan palliation. **Methods:** Between January 2000 and February 2017, 28 patients with DILV with TGA or TA (IIc) underwent various systemic outflow relief operations (SORO) in the course of Fontan palliation. AO was associated in 12 patients. SORO comprises Damus-Kaye-Stansel procedure (n=9), primary Norwood-type palliation (n=5), palliative arterial switch operation (n= 1), and VSD extension (n= 3). Left ventricle outflow tract area index (LVOTAI) was measured on initial postnatal echocardiography. Cox model was fitted to identify the risk factors for decreased time to SORO. **Results** : There was one early death after initial palliation. Median LVOTAI was 161 mm<sup>2</sup>/m<sup>2</sup> (26-413 mm<sup>2</sup>/m<sup>2</sup>). Freedom from SORO at 12 months was 46 ± 9.4 % (0% in patients with AO, 81 ± 9.8 % in patients without AO, inter-group difference: P<0.001). On Cox model, AO (HR, 17.43, 95% CI 1.9 – 158.8, P=0.011) and smaller LVOTAI (HR, 1.13, 95% CI 1.02 – 1.24, 10 mm<sup>2</sup>/m<sup>2</sup> decrease, P=0.017) were identified as predictors of the need for SORO. **Conclusion:** In patients with DILV with TGA or TA (IIc), SORO was required in the majority of the patients during the course of Fontan palliation, especially when AO was initially combined. LVOTAI can be a useful parameter for the prediction of subsequent need for SORO.