



## Congenital Heart Disease

### LATE COMPLICATIONS AND CARDIOPULMONARY PERFORMANCE IN ADULTS WITH FONTAN PHYSIOLOGY: RV-DOMINANT VERSUS THOSE WITH LV-DOMINANT OR UNSEPTATED VENTRICLES

Poster Contributions  
Poster Hall, Hall C  
Sunday, March 19, 2017, 9:45 a.m.-10:30 a.m.

Session Title: Redefining the “F” Word  
Abstract Category: 9. Congenital Heart Disease: Adult  
Presentation Number: 1270-014

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**Background:** Do adult Fontans with RV-dominant single ventricle physiology (RV) have worse prognosis versus patients with LV-dominance (LV) or unseptated ventricles?

**Methods:** 180 adult Fontans (median age 25) were reviewed. Endpoints relating to Fontan failure and exercise capacity were compared. Additional comparisons used propensity-matched pairs near-identical by diagnosis, age and era. Risk-adjustment was via parametric models.

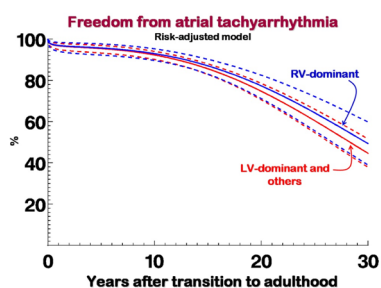
**Results:** A: RV (N=54) versus LV and unseptated ventricles (N=103 and 23 respectively).

B1: Matched pairs: 51 RV versus 51 LV.

B2: Of the 23 HLHS patients, 16 were matched against 16 LV.

**Conclusions:** Young adults with RV-dominant Fontans have comparable rates of late complications during early adulthood. Worse function and valve regurgitation is concerning for the longer term.

A	RV	LV-dominant and others	P
	N=54	N=126	-
Age (years)	29.1	29.5	.34
Lateral tunnel	26; 48%	75; 60%	.13
Dead	3; 6%	5; 4%	.64
Revision	1; 2%	2; 2%	.90
Cirrhosis	5; 9%	13; 10%	.83
PLE	4; 7%	7; 6%	.64
Thromboembolic episodes	13; 24%	27; 21%	.70
Stroke	3; 6%	14; 11%	.24
Pacemaker	8; 15%	26; 21%	.36
Atrial arrhythmia	13; 24%	38; 30%	.41
Ventricular dysfunction ≤ mild	82%	86%	.003
A-V valve regurgitation ≤ mild	58%	86%	<.001
Aortic regurgitation ≤ mild	94%	93%	.48
VO <sub>2</sub> max % predicted	55%	59%	.07
Albumin	45	44	.47
Limited in activities	15; 28%	34; 27%	.94



B1	Propensity matched pairs		P
	RV = 51	LV = 51	-
Dead	3	0	.08
Revision	1	1	.99
Cirrhosis	4	6	.51
PLE	4	2	.40
Thromboembolic complication	10	9	.80
Stroke	3	5	.46
Pacemaker	8	11	.45
Atrial tachyarrhythmia	13	13	.99
Ventricular dysfunction ≤ mild	84%	94%	.01
A-V valve regurgitation ≤ mild	58%	90%	.001
VO <sub>2</sub> max % predicted	55%	61%	.03

B2	Propensity matched pairs		P
	HLHS = 16	LV = 16	-
Dead	0	0	.99
Cirrhosis	0	3	.07
PLE	1	1	.99
Thromboembolic episodes	6	3	.24
Stroke	1	1	.99
Pacemaker	1	2	.54
Atrial tachyarrhythmia	1	5	.07
Ventricular dysfunction ≥ mild	9	2	.003
A-V valve regurgitation ≥ mild	7	0	.02
VO <sub>2</sub> max % predicted	55%	61%	.30