

Left Ventricle					
	Premature (< 29 weeks)		Term		
	Day 1	Day 2		Day 1	Day 2
Conventional					
Aortic diameter (mm)	4.2 (0.5)	4.4 (0.5)		6.9 (0.6)	6.9 (0.5)
		- PDA	+ PDA		
LVO (mls/kg/min)	165 (83)	177 (90)	243 (120)	128 (28)	137 (28)
Shortening Fraction (%)	34 (6)	34 (7)	37 (6)	39 (7)	39 (8)
Ejection Fraction (%)	57 (7)	58 (6)	61 (7)	55 (7)	53 (6)
MV E wave (cm/s)	0.35 (0.11)	0.41 (16)	0.47 (0.16)	55.9 (8.3)	55.7 (8.9)
MV A wave (cm/s)	0.48 (0.12)	0.50 (0.13)	0.56 (0.11)	50.6 (8.2)	49.7 (9.2)
E:A ratio	0.75 (0.19)	0.85 (0.45)	0.83 (0.27)	1.1 (1.0-1.2)	1.1 (0.9-1.3)
MV VTI	4.8 (1.3)	5.3 (1.4)	5.9 (1.4)	9.1 (1.5)	8.6 (1.7)
TDI					
LV TDI (cm/s)					
s'	2.8 (0.9)	3.3 (0.7)		4.9 (0.8)	4.6 (0.6)
e'	3.6 (1.4)	4.2 (1.3)		6.7 (1.4)	6.5 (1.2)
a'	4.0 (1.5)	4.8 (1.4)		5.5 (1.3)	5.4 (1.3)
e':a' ratio	0.95 (0.36)	0.91 (0.25)		1.3 (0.4)	1.3 (0.4)
Septal TDI (cm/s)					
s'	2.4 (0.6)	3.0 (0.6)		3.6 (0.6)	3.5 (0.5)
e'	2.8 (0.8)	3.6 (1.1)		4.7 (1.1)	4.8 (0.9)
a'	3.9 (1.1)	4.7 (1.4)		4.2 (0.8)	4.4 (0.8)
e':a' ratio	0.76 (0.21)	0.91 (0.25)		1.1 (0.9-1.3)	1.1 (0.9-1.3)
LV Free Wall Strain & SR TD					
Strain (%)	12.8 (3.3)	13.1 (3.6)		24.5 (3.8)	-
Systolic SR (1/s)	1.5 (0.6)	1.6 (0.5)		1.8 (0.4)	-
Diastolic E' SR (1/s)	1.8 (0.8)	2.0 (0.8)		3.2 (1.5)	-
Diastolic A' SR (1/s)	2.3 (0.7)	2.7 (1.2)		2.1 (1.3)	-
Septal Strain & SR TD					
Strain (%)	15.8 (2.8)	16.8 (3.6)		25.9 (4.8)	-
Systolic SR (1/s)	1.6 (0.3)	1.8 (0.5)		1.9 (0.6)	-
Diastolic E' SR (1/s)	1.7 (0.6)	2.2 (0.6)		3.2 (1.6)	-
Diastolic A' SR (1/s)	2.3 (0.7)	2.6 (1.2)		2.4 (0.9)	-
LV Dimensions					
Septal wall diameter (mm)	2.7 (0.6)	2.6 (0.6)		-	-
LV internal diameter (mm)	11.0 (2.2)	11.7 (2.1)		18 (3)	17 (2)
LV posterior wall diameter (mm)	2.5 (0.6)	2.4 (0.6)		-	-
LV length	17.7 (1.6)	18.4 (1.8)		30.8 (2.6)	30.7 (2.6)
LV Event Times					
IVCT (ms)	56 (13)	46 (11)		65 (14)	65 (12)
IVRT (ms)	58 (13)	52 (12)		53 (12)	52 (10)
Systolic time (ms)	147 (20)	150 (18)		188 (172-203)	184 (172-195)
Diastolic time (ms)	131 (22)	126 (22)		199 (42)	195 (44)
SD ratio	1.16 (0.17)	1.29 (0.23)		0.98 (0.24)	0.98 (0.19)
Myocardial performance index	0.87 (0.2)	0.72 (0.17)		0.61 (0.53-0.7)	0.61 (0.54-0.7)

Deformation STE				
LV GLS (%)	18.4 (3.5)	20.3 (3.2)	21.7 (1.9)	21.2 (1.8)
LV GLSRs (1/sec)	1.8 (0.3)	2.1 (0.3)	2.05 (1.9-2.28)	2.17 (1.93-2.43)

Right Ventricle				
	Premature (<29 weeks)		Term	
	D1	D2	D1	D2
Pulmonary Artery Diameter (mm)	5.7 (0.7)	5.6 (0.7)	9.0 (1.0)	9.5 (1.0)
Conventional				
PAAT (ms)	42 (10)	45 (12)	49 (17)	59 (15)
RVET (ms)	151 (21)	157 (29)	216 (24)	216 (23)
TDI				
RV TDI (cm/s)				
s'	3.6 (0.9)	4.4 (1.0)	6.55 (1.12)	6.54 (1.1)
e'	3.9 (1.3)	4.5 (1.1)	7.99 (1.6)	7.33 (1.3)
a'	6.7 (1.8)	8.6 (2.6)	8.27 (1.6)	8.01 (1.3)
e'/a'	-	-	0.99 (0.2)	0.93 (0.2)
RV strain & SR TD				
Strain (%)	22.1 (5.1)	23.1 (4.7)	28.3 (4.9)	-
Systolic strain rate (1/s)	2.0 (0.6)	2.4 (0.6)	1.9 (0.5)	-
Diastolic E' SR (1/s)	2.4 (0.9)	2.5 (0.6)	2.8 (0.8)	-
Diastolic A' SR (1/s)	3.4 (1.0)	4.4 (1.4)	2.1 (0.9)	-
RV TAPSE & FAC				
TD TAPSE (mm)	5.1 (1.0)	5.9 (1.1)	9.2 (1.4)	9.1 (1.3)
3D Chamber FAC (%)	43 (8)	48 (7)	39 (7)	38(6)
4D Chamber FAC (%)	37 (8)	43 (8)	26 (7)	27 (8)
Global FAC (%)	40 (7)	46 (6)	33 (5)	33 (4)
RV Dimensions				
Tricuspid valve annular diameter (mm)	6.4 (1.0)	6.4 (0.9)	12.9 (1.5)	13.1 (1.5)
Right ventricular basal diameter (mm)	11.1 (1.3)	10.9 (1.4)	17.1 (1.7)	17.4 (2.1)
Right ventricular mid cavity diameter (mm)	9.9 (1.6)	9.6 (1.6)	15.5 (1.9)	16.7 (1.7)
Right ventricular length (mm)	18.7 (2.2)	18.7 (2.4)	30.6 (2.3)	30.5 (2.3)
RV Event Times				
IVCV (cm/sec)	-	-	4.88 (1.52)	4.84 (1.39)
IVRT (msec)	-	-	41.38 (17.09)	43.32 (15.55)
Myocardial performance index	-	-	0.42 (0.15)	0.42 (0.12)
S'D' ratio	-	-	1.08 (0.26)	1.11 (0.31)
Deformation STE				
RV FWLS (%)	18.1 (4.0)	20.3 (3.2)	21.2 (5.3)	21.3 (5.4)
RV FWLSRs (1/sec)	1.9 (0.5)	2.2 (0.6)	-	-

References

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