

Left ventricle structure and function in young adults born very preterm and association with neonatal characteristics

Table S1. Supplementary LV echocardiography markers.

	Term N=85		Preterm N=86		p-value	p-value (adjusted for BSA)
	Missing n (%)	Mean $\pm$ SD	Missing n (%)	Mean $\pm$ SD		
Simpson's disc method dimensions and functional 2D assessment						
LV length in systole (A4C), mm	12 (14)	66 $\pm$ 8.2	10 (12)	61.2 $\pm$ 8.5	0.007	0.345
ESV in A4C, mL	12 (14)	45.7 $\pm$ 16.2	10 (12)	39.7 $\pm$ 15.4	0.069	0.916
Doppler - Mitral valve						
MV deceleration time, ms	1 (1)	186 $\pm$ 34	1 (1)	182 $\pm$ 30	0.629	-
MV A wave duration, ms	1 (1)	117 $\pm$ 10	1 (1)	116 $\pm$ 9	0.72	-
LV IVRT, ms	3 (4)	56.5 $\pm$ 6.1	1 (1)	56.7 $\pm$ 6.1	0.888	-
LV IVCT, ms	3 (4)	60.1 $\pm$ 7.3	1 (1)	61.2 $\pm$ 9.3	0.629	-

A4C: apical 4-chamber view, ESV: end systolic volume estimate, LV: left ventricle. MV: mitral valve. IVRT: isovolumic relaxation time, IVCT: isovolumic contraction time. P-values were computed after adjustment for multiple comparisons using the False Discovery Rate method.

Table S2. Speckle-Tracking Echocardiography.

	Term N=85		Preterm N=86		Mean difference
	Missing n (%)	Mean $\pm$ SD	Missing n (%)	Mean $\pm$ SD	
Circumferential					
Peak Early Diastolic Circumferential Strain Rate, 1/s	12 (14)	2.11 $\pm$ 0.48	11 (13)	2.12 $\pm$ 0.5	0.02 (-0.14, 0.17)
Longitudinal					
Peak Longitudinal Strain LV – Apical 2 Chamber, %	15 (18)	-22.5 $\pm$ 4.7	16 (19)	-22.5 $\pm$ 5	0.03 (-1.58, 1.63)
Peak Longitudinal Strain LV – Apical 3 Chamber, %	23 (27)	-20.8 $\pm$ 4.6	20 (23)	-20.3 $\pm$ 4.7	0.48 (-1.14, 2.1)
Peak Longitudinal Strain Rate LV – Apical 2 Chamber, 1/s	15 (18)	-1.13 $\pm$ 0.27	16 (19)	-1.16 $\pm$ 0.29	-0.03 (-0.12, 0.06)
Peak Longitudinal Strain Rate LV – Apical 3 Chamber, 1/s	23 (27)	-1.07 $\pm$ 0.22	20 (23)	-1.03 $\pm$ 0.27	0.05 (-0.04, 0.13)
Peak Early Diastolic Longitudinal LV Strain Rate Apical 4 Chamber, 1/s	13 (15)	1.6 $\pm$ 0.39	10 (12)	1.58 $\pm$ 0.44	-0.02 (-0.16, 0.11)

LV: left ventricle. * P<0.05 after adjustment for multiple comparisons. Adjusted mean difference: mean difference after adjustment for body surface area.

Table S3. LV echocardiography markers according to sex and birth status.

	Term N=85		Preterm N=86		p-value
	Missing n (%)	Mean $\pm$ SD	Missing n (%)	Mean $\pm$ SD	
Male					
LV mass, g	1 (3)	129 $\pm$ 27	1 (3)	118 $\pm$ 25	0.090
LV EF, %	4 (11)	55.8 $\pm$ 6.5	5 (13)	56.9 $\pm$ 6.9	0.50
LV CO, L/min	3 (8)	4.47 $\pm$ 0.68	2 (5)	4.14 $\pm$ 0.55	0.030
LV E/A	1 (3)	1.8 $\pm$ 0.48	1 (3)	1.77 $\pm$ 0.39	0.75
LV e', cm/s	2 (6)	19.3 $\pm$ 2.4	1 (3)	17.6 $\pm$ 3.1	0.012
Peak Global Longitudinal Strain (%)	4 (11)	-21.1 $\pm$ 3.9	5 (13)	-21.1 $\pm$ 4.5	0.98
Female					
LV mass, g	0 (0)	104.2 $\pm$ 28.1	0 (0)	92.5 $\pm$ 20.8	0.022
LV EF, %	8 (16)	57.6 $\pm$ 6.5	5 (10)	56.8 $\pm$ 6.9	0.59
LV CO, L/min	1 (2)	4.4 $\pm$ 0.55	0 (0)	4.16 $\pm$ 0.49	0.030
LV E/A	0 (0)	1.79 $\pm$ 0.38	0 (0)	1.69 $\pm$ 0.38	0.21

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LV e', cm/s	1 (2)	19.1 ± 2.8	0 (0)	17.8 ± 2.6	0.019
Peak Global Longitudinal Strain (%)	8 (16)	-21.2 ± 3.9	5 (10)	-21.4 ± 3.3	0.87

LV: left ventricle; EDV: end diastolic volume. P values are calculated without adjustment for multiple comparisons.