



**Figure E1.** A, X-Y plot showing MDI and PDI scores for 111 patients with no risk factors (low birth weight, genetic syndrome, or *APOE*  $\epsilon$ 2 allele). The x-axis is the MDI score and the y-axis is the PDI score. B, X-Y plot showing MDI and PDI scores for 77 patients with one or more risk factors (low birth weight, genetic syndrome, or *APOE*  $\epsilon$ 2 allele). The x-axis is the MDI score and the y-axis is the PDI score. The number of patient with low scores on both measures is increased compared with patients with no risk factors (A). *BW*, Birth weight; *APOE*, apolipoprotein E; *MDI*, Mental Developmental Index; *PDI*, Psychomotor Developmental Index.

**TABLE E1.** Preoperative and intraoperative characteristics of the patients who returned and of those who did not return

Variable	Patients evaluated at 1 year				Patients who did not return				Stat	P
	Sample	n	Mean (%)	SD	Sample	n	Mean (%)	SD		
Gender	188				55				2.229	.135
Female		85	45.2%			18	32.7%			
Male		103	54.8%			37	67.3%			
Ethnicity	188				55	1			2.364	.669
White		136	72.3%			35	63.6%			
Asian/Pacific Islander		4	2.1%			1	1.8%			
Black		23	12.2%			11	20.0%			
Hispanic		6	3.2%			2	3.6%			
American Indian		0	0.0%			0	0.0%			
Other		19	10.1%			6	10.9%			
APOE genotype	188				55				2.168	.826
APOE ε22/ε23		22	11.7%			9	16.4%			
APOE ε33		117	62.2%			33	60.0%			
APOE ε33/ε44		42	22.3%			10	18.2%			
APOE ε24		5	2.7%			1	1.8%			
Unknown		2	1.1%			2	3.6%			
Diagnosis	188				55	5			6.417	.093
TGA/IVS		39	20.7%			5	9.1%			
VSD		34	18.1%			15	27.3%			
TOF		56	29.8%			21	38.2%			
Other		59	31.4%			14	25.5%			
Birth history										
Type of delivery	186				48					
Cesarean section		129	69.4%			31	64.6%		0.211	.646
Vaginal		57	30.6%			17	35.4%			
Multiple gestation	187				47					
Yes		10	5.3%			0	0.0%		74.397	.000
No		177	94.7%			47	100%			
Gestational age (wk)	188	38.40	2.44	49		38.63	2.27	-0.632	.529	
APGAR 1 min	184	7.72	1.65	46		7.93	1.36	-0.906	.368	
APGAR 5 min	184	8.63	0.94	46		8.76	0.71	-1.043	.300	
Birth weight (g)	187	3107	667	50		3128	630	-0.213	.832	
Birth length (cm)	182	49.41	3.73	46		49.03	3.39	0.676	.501	
Birth head circumference (cm)	183	33.47	2.18	46		33.04	2.26	1.161	.250	
Preoperative variables										
Intubation	186				48					
Yes		45	24.2%			10	20.8%		0.089	.765
No		141	75.8%			38	79.2%			
Prostaglandin infusion	186				48					
Yes		51	27.4%			9	18.8%		1.084	.298
No		135	72.4%			39	81.2%			
Preoperative LOS (d)	188	2.15	4.92	55		1.49	2.09	1.454	.147	
Operative variables										
Age at operation (d)	188	61.34	54.59	55		80.33	61.02	-2.078	.041	
Weight at operation (kg)	188	4.26	1.35	55		4.39	1.30	-0.641	.523	
Total support time (min)	188	86.99	43.47	55		73.85	28.07	2.660	.009	
CPB duration (min)	188	75.32	46.63	55		63.58	29.61	2.239	.027	
Use of DHCA	188				55				0.546	.460
Yes		67	35.6%			16	29.1%			
No		121	64.4%			39	70.1%			
DHCA duration (min)	67	32.7	14.8	16		35.3	10.3	-0.819	.419	
Cooling time (min)	188	12.40	6.09	55		12.58	7.07	-0.174	.862	
Lowest NP temperature (°C)	188	22.80	5.30	55		23.93	5.02	-1.442	.153	
Hematocrit after hemodilution (%)	188	27.22	4.15	55		27.53	3.98	-0.502	.617	

**TABLE E1. Continued**

Variable	Patients evaluated at 1 year				Patients who did not return				Stat	P
	Sample	n	Mean (%)	SD	Sample	n	Mean (%)	SD		
ECMO/VAD	188				55					
Yes		2	1.1%			0	0.0%		104.292	.000
No		186	98.9%			55	100%			
Delayed sternal closure	188				55				70.719	.000
Yes		13	6.9%			0	0.0%			
No		175	93.1%			55	100%			
Postoperative variables										
Total hospital LOS (d)	188		10.91	13.02	55		8.40	6.77	1.909	.058
Postoperative LOS (d)	188		8.76	10.73	55		6.91	5.56	1.708	.089

*APOE*, Apolipoprotein E; *TGA/IVS*, transposition of the great arteries with intact ventricular septum; *VSD*, ventricular septal defect; *TOF*, tetralogy of Fallot; *LOS*, length of stay; *CPB*, cardiopulmonary bypass; *DHCA*, deep hypothermic circulatory arrest; *Total support time*, CPB time + DHCA time; *NP*, nasopharyngeal; *ECMO*, extracorporeal membrane oxygenation; *VAD*, ventricular assist device.