

Table S1. Comparison of patients with pre-existing stroke, peri-operative stroke, or without any history of CVA.

	History of CVA (n = 12)	CVA After Surgery (n = 16)	None (n = 137)
Demographics			
Age (years)			
mean ± SD	58.9 ± 14.7	69.7 ± 7.8	70.3 ± 7.6
Over 60 [%]	75	92.3	100
Sex			
Male [%]	75	76.9	100
Female [%]	25	23.1	0
Not Reported [%]	0	0	0
Race			
Black [%]	8.3	7.7	25
White [%]	83.3	92.3	75
Other/Asian/Unknown [%]	8.3	0	0
Pre-Existing Conditions			
Weight (kg) [mean ± SD]	87.1 ± 23.0	86.0 ± 28.4	83.0 ± 15.9
BMI [mean ± SD]	28.9 ± 5.8	27.6 ± 7.3	26.8 ± 4.0
CCI [mean ± SD]	4.5 ± 2.1 *	4.6 ± 1.6 *	6.5 ± 1.3
ACS/MI [%]	16.7	23	50
CHF [%]	8.3	23	25
NT-BNP [mean ± SD]	5994.3 ± 8504.2	4651.8 ± 5861.7	3105.2 ± 4567.0
PVD [%]	8.3	15.4	25
COPD [%]	8.3	15.4	25
DM [%]	33.3	38.5	25
Hb1AC [mean ± SD]	5.8 ± 0.46	6.7 ± 2.2	6.1 ± 1.1
Anesthesia and Surgery Data			
Duration of anesthesia (min) [mean ± SD]	377.8 ± 114.4	418.0 ± 116.2	370.4 ± 104.8
Duration of surgery (min) [mean ± SD]	269.2 ± 99.5	305.4 ± 121.9	261.6 ± 98.3
Duration of cardiopulmonary bypass (min) [mean ± SD]	127.7 ± 56.7	167.4 ± 111.4	127.6 ± 61.5
Coronary artery bypass surgery (n)	12	9	129
Mitral valvuloplasty and replacement (n)	4	4	29
Aortic valvuloplasty and replacement (n)	3	2	56
Aortic aneurysm repair (n)	1	0	18
Others (n)	1	4	5
Estimated Blood Loss (mL) [mean ± SD]	262.5 ± 389.7	137.5 ± 43.3	205.3 ± 292.1
Peri-operative Management			
Transfusions during surgery			
Packed Red Blood Cells (mL) [mean ± SD]	9.0 ± 63.3	184.6 ± 357.9	100.7 ± 241.1
Fresh Frozen Plasma, (mL) [mean ± SD]	104.2 ± 225.1	269.2 ± 554.0	70.9 ± 215.9
Total crystalloid during surgery (mL) [mean ± SD]	1600.0 ± 797.5	1700.0 ± 892.6	1256.0 ± 528.8
Clinical Care during 24 h post-surgery			
Packed Red Blood Cells (mL) [mean ± SD]	50.0 ± 173.2	115.4 ± 195.1 *	9.0 ± 63.3
Fresh Frozen Plasma (mL) [mean ± SD]	0.0 ± 0.0	69.2 ± 249.6 *	0.0 ± 0.0
Opioids Administration (mg) [mean ± SD]	757.3 ± 270.1	660.7 ± 233.4	702.2 ± 233.4

Benzodiazepine administration (mg) [mean \pm SD]	2.6 \pm 6.8	2.5 \pm 6.5	0.13	\pm 0.47
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ACS = acute coronary syndrome , BMI = body mass index, CCI = Charlson Comorbidity Index , CHF = congestive heart failure, COPD = chronic obstructive pulmonary disease, CVA = , DM = diabetes melitis, MI = myocardial infarction, NT-BNP = N-terminal pro b-type natriuretic peptide, PVD = peripheral vascular disease, SD = standard deviation, * $p < 0.05$.

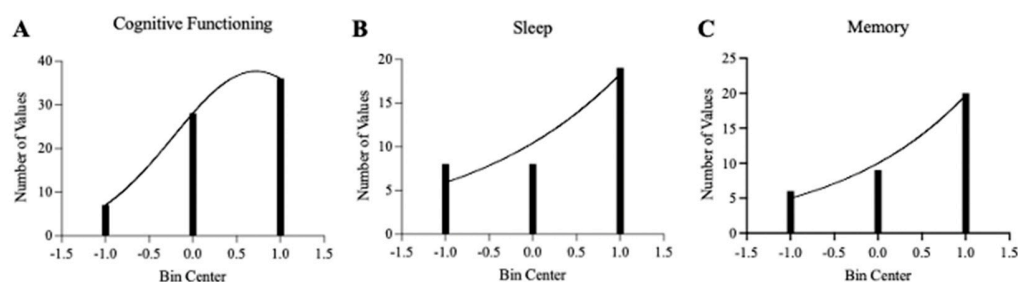


Figure S1. Cognitive assessments pre- and post-surgery. Distribution of cognitive function (A), sleep (B), and memory (C) assessment results. Pre-surgery baseline (bin center 0) compared with better (+1) or worse (-1) post-surgical assessment results.