

Table S1 Overview of clinical and quantitative imaging data for all included patients

	Case 7	Case 8	Case 9	Case 10	Case 11	Case 12
Age (years), sex	70, M	61, M	46, M	57, M	62, M	58, M
Occluded vessel	L ICA	L ICA	R ICA	L ICA	R ICA	L ICA
Clinical presentation	R hemisyn-drome	R hemisyn-drome, aphasia	L hemisyn-drome, speech trouble	R hemisyn-drome	L hemisyn-drome, dysarthria	R hemisyn-drome, R facial palsy
Smoking	Yes	No	Yes	Yes	Yes	Yes
Hypertension	No	Yes	Yes	No	Yes	Yes
Dyslipedemia	Yes	Yes	Yes	Yes	Yes	Yes
Obesity (BMI >25 kg/m ²)	No	Yes	Yes	Yes	Yes	Yes
Diabetes	No	No	No	No	No	Yes
Previous stroke	No	No	Yes	No	No	Yes
NIHSS score pre-bypass	2	5	2	3	4	2
mRS score pre-bypass	1	3	1	2	2	2
BOLD-CVR						
Whole-brain pre-op	0.02	0.11	n/a	0.05	0.09	0.07
Affected hemisphere pre-op	-0.03	0.08	n/a	-0.01	0.03	-0.01
Unaffected hemisphere pre-op	0.07	0.23	n/a	0.07	0.17	0.12
Affected MCA territory pre-op	-0.10	0.07	n/a	-0.01	0.02	-0.05
Unaffected MCA territory pre-op	0.06	0.20	n/a	0.06	0.17	0.12
qMRA-NOVA						
Affected M1-flow pre-op	119	90	79	103	73	96
Contralateral M1-flow pre-op	327	199	175	272	162	214
M1-ratio pre-op, %	36.39	48.76	45.14	37.87	45.06	44.86
Affected A2-flow pre-op	36	57	46	40	37	34
contralateral A2-flow pre-op	76	96	107	147	98	101
Affected P2-flow pre-op	106	97	116	216	74	32
Contralateral P2-flow pre-op	94	76	89	127	60	63
Affected hemispheric VFR pre-op	261	244	241	359	184	162
Contralateral hemispheric VFR pre-op	497	371	371	546	320	378
Hemispheric VFR-ratio pre-op, %	52.52	65.77	64.96	65.75	57.50	42.86

A2, second segment of the anterior cerebral artery; BMI, body mass index; BOLD, blood oxygenation-level dependent; CVR, cerebrovascular reactivity; F, female; ICA, internal carotid artery; L, left; M, male; MCA, middle cerebral artery; M1, first segment of the middle cerebral artery; NOVA, non-invasive vessel analysis; P2, second segment of the posterior cerebral artery; qMRA, quantitative magnetic resonance angiography; R, right; VFR, volume flow rate