

Online Supplemental Material

for

***Mechanical thrombectomy for pediatric arterial ischemic
stroke from acute M2 occlusion***

Supplementary Table 1: Pediatric patients with MCA-M2 segment occlusion treated with mechanical thrombectomy

Patient number	Sex (F/M)	Age (years)	Side of brain	IV tPA given	Clinical presentation	Stroke etiology	Hospital arrival time (hours since LSW) ^a	Timing of initial angiographic imaging (minutes since LSW) ^a	ASPECTS score on baseline CT or MRI	Successful thrombectomy technique utilized	Final mTICI score	Ped-NIHSS score pre	Ped-NIHSS score 24h post	Ped-mRS 3m post stroke	Ped-mRS final available	Ped-mRS timing of final score (months post)
1	M	16	R	No	Hemiparesis	Cardio-embolic	< 6 hours	154	9	Stent-retriever alone	3	13	3	1	0	12
2	M	14	L	No	Dysphasia	Paradoxical embolus	< 6 hours	161	8	Stent-retriever + aspiration	2b	6	0	0	0	48
3	M	3	R	No	Hemiparesis	Cardio-embolic	< 6 hours	310	8	Stent-retriever + aspiration	3	3	0	0	0	12
4	M	0.9	R	No	Hemiparesis	Paradoxical embolus	< 6 hours	495	8	Stent-retriever alone	2b	8 ^b	2 ^b	1	1	6
5	M	6	L	Yes	Hemiparesis, dysphasia	Paradoxical embolus	< 6 hours	139	9	Stent-retriever + aspiration	2b	9	3	1	1	3
6	F	15	R	Yes	Hemiparesis	Cardio-embolic	< 6 hours	60	10	Aspiration alone	2b	12	2	1	1	3

^a One thrombectomy patient and two control patients suffered their stroke episodes whilst being hospital inpatients.

^b This patient was 11 months of age at the time of treatment. The Ped-NIHSS is designed and validated for children > 2 years of age and several of the testing domains cannot be accurately assessed in an infant. The scores provided are based on the observational examination findings within the testable domains and therefore may be an underestimate of the true extent of disability.

ABBREVIATIONS: ASPECTS – Alberta Stroke Program Early CT Score, F – female, IV – intravenous, L – Left, LSW – last seen well, M – male, MCA-M2 – 2nd segment of the middle cerebral artery, mTICI – modified Treatment In Cerebral Ischemia scale, N/A – not applicable, NR – not recorded, Ped-mRS – Pediatric modified Rankin Scale score, Ped-NIHSS – Pediatric National Institute of Health Stroke Scale score, R – right, tPA – tissue plasminogen activator (thrombolysis)

Supplementary Table 2: Summary results comparing pediatric patients with MCA-M2 occlusion treated by mechanical thrombectomy

	Thrombectomy patients
Number of patients (n)	6
Sex	
Female	1
Male	5
Age (years)	
Mean, μ (SD)	9.2 (6.60)
Range	0.9 - 16
Administered IV thrombolysis (n)	2
Hemisphere involved	
Left	2
Right	4
Initial hospital arrival timing (mins since LSW)^a	
Mean, μ (SD)	109.2 (97.6)
Range	35 - 274
Timing of initial angiographic imaging (CTA, MRA, or DSA) (mins since LSW)^a	
Mean, μ (SD)	219.8 (157.3)
Range	60 - 495
Baseline ASPECTS	
Mean, μ (SD)	8.7 (0.82)
Range	8 - 10
Ped-mRS score at 3 months	
0	2
1	4
2	0
3	0
4	0
5	0
6	0
0 – 1 (Non-disabled)	6
2 – 6 (Mild to severe disability or death)	0
Ped-mRS score – final available	
0	3
1	3
2	0
3	0
4	0
5	0
6	0
0 – 1 (Non-disabled)	6
2 – 6 (Mild to severe disability or death)	0
Timing of final ped-mRS assessment (months post)	
Mean, μ (SD)	14.0 (17.15)
Range	3 - 48

^a One thrombectomy patient suffered their stroke episode whilst being a hospital inpatient.

ABBREVIATIONS: ASPECTS – Alberta Stroke Program Early CT Score, IV – intravenous, LSW – last seen well, MCA-M2 – 2nd segment of the middle cerebral artery, mTICI – modified Treatment In Cerebral Ischemia scale, N/A – not applicable, Ped-mRS – Pediatric modified Rankin Scale score, tPA – tissue plasminogen activator (thrombolysis)