

SUPPLEMENTAL MATERIAL

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Suppl. Table I. Characteristics of analysed and patients in the MR CLEAN trial

	Analysed patients (n=344)	MR CLEAN patients (n=500)	p
Allocation to intervention group (%)	156 (45.3)	233 (46.6)	0.22
Age (median [IQR])	66 [56-76]	66 [56-76]	0.64
Sex (male) (%)	204 (59.3)	292 (58.4)	0.85
NIHSS at baseline (median [IQR])	18 [14-22]	18 [14-22]	0.83
Previous stroke (%)	41 (11.9)	54 (10.8)	0.69
Atrial fibrillation (%)	92 (26.7)	135 (27.0)	1
Diabetes mellitus (%)	48 (14.0)	68 (13.6)	0.96
Smoking (%)	101 (29.4)	143 (28.6)	0.87
Myocardial infarction (%)	56 (16.3)	76 (15.0)	0.74
Hypertension (%)	149 (43.3)	227 (45.4)	0.60
Pre-stroke mRS \leq2 (%)	312 (90.7)	479 (95.8)	1
Systolic blood pressure at baseline (mmHg) (median [IQR])	143 [130-160]	143 [130-160]	0.88
Treatment with IV alteplase	304 (88.4)	445 (89.0)	0.86
ASPECTS \geq8 at baseline (%)	269 (78.9)	373 (74.6)	0.25
Location of intracranial occlusion (%)			0.80
ICA	4 (1.2)	4 (0.8)	
ICA-T	90 (26.2)	134 (26.9)	
M1	213 (61.9)	319 (63.9)	
M2	34 (9.9)	39 (7.8)	
A1 or A2	3 (0.9)	3 (0.6)	
Collateral status on baseline CTA (%)			1
Absent collaterals	19 (5.6)	26 (5.2)	
Poor collaterals	94 (27.7)	136 (27.2)	
Moderate collaterals	134 (39.5)	198 (39.6)	
Good collaterals	92 (27.1)	133 (26.6)	
Extracranial ICA$>$50% stenosis at symptomatic side (%)	40 (11.6)	57 (11.4)	1
Extracranial ICA occlusion at symptomatic side (%)	25 (7.3)	39 (7.8)	0.88
Time from stroke onset to randomization (minutes) (median [IQR])	189[145-248]	200 [150-261]	0.08

Suppl. Table II. Characteristics of patients according pattern of intracranial carotid artery calcification

	Intimal dominance (n=118)	Medial dominance (n=152)	p
Allocated to intervention group	57 (48.3)	65 (42.8)	0.433
Age(median [IQR])	63 [54-70]	76 [66-80]	<0.001
Sex (male) (%)	81 (68.6)	81 (53.3)	0.015
NIHSS at baseline (median [IQR])	18[15-21]	18[14-22]	0.330
Previous stroke (%)	11 (9.3)	22 (14.5)	0.274
Atrial fibrillation (%)	28 (23.7)	56 (36.8)	0.030
Diabetes mellitus (%)	12 (10.2)	31 (20.4)	0.035
Smoking (%)	42 (35.6)	35 (23.0)	0.033
Myocardial infarction (%)	11 (9.3)	40 (26.3)	0.001
Hypertension (%)	43 (36.4)	88 (57.9)	<0.001
Pre-stroke mRS ≤2 (%)	112 (94.9)	130 (85.5)	0.021
Systolic blood pressure at baseline (mmHg) (median [IQR])	140 [128-155]	152 [135-166]	<0.001
Treatment with IV alteplase	107 (90.7)	128 (84.2)	0.087
ASPECTS ≥8 at baseline (%) *	90 (76.9)	121 (79.6)	0.703
Location of intracranial occlusion (%)			0.366
ICA	1 (0.8)	3 (2.0)	
ICA-T	35 (29.7)	33 (21.7)	
M1	67 (56.8)	99 (65.1)	
M2	14 (11.9)	17 (11.2)	
A1 or A2	1 (0.8)	0	
Collateral status on baseline CTA(%) †			0.038
Absent collaterals	6 (5.2)	10 (6.6)	
Poor collaterals	24 (20.7)	53 (35.1)	
Moderate collaterals	56 (48.3)	51 (33.8)	
Good collaterals	30 (25.9)	37 (24.5)	
Extracranial ICA>50% stenosis at symptomatic side	11 (9.3)	24 (15.8)	0.166
Extracranial ICA occlusion at symptomatic side	14 (11.9)	8 (5.3)	0.081
Time from stroke onset to randomization ‡	195 [148-268]	186 [146-239]	0.294
Recanalization status on follow up CTA (%) §			0.622
No recanalization	20 (20.2)	29 (27.1)	
Incomplete recanalization, no distal contrast	4 (4.0)	4 (3.7)	
Incomplete recanalization but any distal contrast	13 (13.1)	10 (9.3)	
Complete recanalization	62 (62.6)	64 (59.8)	
Follow-up (5-7 days) infarct volume (mL) (median [IQR] 	65 [26-115]	83 [30-161]	0.083

* Alberta Stroke Program Early Computed Tomography Score (ASPECTS) was missing for three patients (1%).

† Data was missing for 5 (1%) patients.

‡ Data was missing for 3 (1%) patients.

§ Data was missing for 64 (19%) patients of which 28 patients died.

|| Data on follow-up infarct volume on NCCT 5-7 days was missing for 24 patients (9%) of which 8 patients died before assessment.

Suppl. Table III. Proportions of functional independence stratified by reperfusion grades in EVT-treated patients

mTICI-score *	EVT-patients with intimal ICAC (n=57)		EVT-patients with medial ICAC (n=65)	
	N (%)	mRS 0-2 (%)	N (%)	mRS 0-2 (%)
0-1	9 (19)	0/9	9 (17)	1/9 (11)
2a	13 (27)	2/13 (15)	11 (21)	3/11 (27)
2b-3	26 (54)	10/26 (38)	32 (62)	13/32 (40)
<i>cOR (95%CI)</i>	<i>1.03 (0.89-1.18)</i>		<i>1.21 (1.07-1.38)</i>	

*Score of 0 indicates no perfusion or anterograde flow beyond occlusion site, 1: penetration of contrast but not perfusion, 2A: some perfusion <50% of vascular territory, 2B: substantial perfusion ≥50, 3: complete perfusion of vascular territory.

To assess impact of reperfusion on functional outcome with ordinal logistic regression, complete scale of dependent (mRS) and independent (mTICI-score) variables were used.

Suppl. Table IV. Serious adverse events according pattern of intracranial carotid artery calcification for both treatment groups.

	Patient with intimal calcification pattern		Patient with medial calcification pattern	
	Intervention group (n=57)	Control group (n=61)	Intervention group (n=65)	Control group (n=87)
Any serious adverse event *	26 (46%)	17 (28%)	33 (51%)	44 (51%)
Symptomatic intracerebral haemorrhage	0	4 (7%)	5 (8%)	7 (8%)
Recurrent ischemic stroke	2 (4%)	0	5 (8%)	0
Progression of ischemic stroke	14 (25%)	10 (16%)	13 (20%)	14 (16%)
Pneumonia	6 (11%)	4 (6%)	11 (17%)	23 (26%)
Cardiac ischemia	1 (2%)	1 (2%)	0	3 (3%)
Extracranial haemorrhage	0	0	0	1 (1%)
Allergic complication	1 (2%)	0	0	0
Other complication	9 (16%)	5 (8%)	3 (5%)	16 (18%)

* Only first events of one type are listed. Patients experiencing multiple events of one type have been counted once.

Appendix

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