

SUPPLEMENTAL MATERIAL

Table I: Total number of patients in each collateral status by treatment type, percentage of patients with 90-day good clinical outcome (mRS 0-1), difference in rate of good outcome between treatment types with 95% confidence interval using the three collateral scores.

Collateral Score Type		Endovascular Treatment		IV tPA Only		Treatment Difference (%)	95% CI	
		N	% mRS 0-1	N	% mRS 0-1			
Score 1	Good (8-10)	46	34.8	24	29.2	5.6	-17.2	28.4
	Intermediate (6-7)	42	38.1	18	0	38.1	23.4	52.8
	Poor (0-5)	38	13.2	17	17.6	-4.5	-25.6	16.6
Score 2	Good (3-5)	47	36.2	26	26.9	9.2	-12.6	31.1
	Intermediate (2)	60	31.7	26	7.7	24	8.4	39.6
	Poor (0-1)	19	5.3	7	14.3	-9	-36.8	18.8
Score 3	Good (3)	62	35.5	26	26.9	8.6	-12.2	29.4
	Intermediate (2)	30	36.7	17	11.8	24.9	1.8	48
	Poor (0-1)	34	11.8	16	6.3	5.5	-10.5	21.6

Table II: 90 day mRS stratified by the three collateral scores (trichotomized into good, intermediate and poor based on pre-defined cut-points of the ordinal scales).

Collateral Score		90 day mRS	IV Only %	Endovascular %	van Elteren test p-value	
Score 1 (0-2/3-7/8-10)	Good (8-10)	0	8.3	15.6	0.201	
		1	20.8	20		
		2	12.5	22.2		
		3	16.7	17.8		
		4	20.8	11.1		
		5-6	20.8	13.3		
	Intermediate (3-7)	0	3.2	15.9	0.0085	
		1	6.5	17.5		
		2	16.1	7.9		
		3	9.7	12.7		
		4	12.9	22.2		
		5-6	51.6	23.8		
	Poor (0-2)	3	25	8.3	0.0905	
		4	25	0		
		5-6	50	91.7		
	Score 1 (0-5/6-7/8-10)	Good (8-10)	0	8.3	15.6	0.201
			1	20.8	20	
			2	12.5	22.2	
3			16.7	17.8		
4			20.8	11.1		
5-6			20.8	13.3		
Intermediate (6-7)		0	0	14.6	0.0128	
		1	0	24.4		

		2	22.2	7.3	0.7446
		3	11.1	12.2	
		4	22.2	19.5	
		5-6	44.4	22	
	Poor (0-5)	0	5.9	11.8	
		1	11.8	2.9	
		2	5.9	5.9	
		3	11.8	11.8	
		4	5.9	17.6	
		5-6	58.8	50	
Score 2 (0-1/2-3/4-5)	Good (4-5)	0	16.7	13.3	0.4743
		1	16.7	20	
		2	16.7	13.3	
		3	50	20	
		4	0	26.7	
		5-6	0	6.7	
	Intermediate (2-3)	0	4.3	15.7	0.0027
		1	10.9	19.1	
		2	15.2	14.6	
		3	8.7	13.5	
		4	19.6	16.9	
		5-6	41.3	20.2	
	Poor (0-1)	0	0	6.3	0.2985
		1	14.3	0	
		3	14.3	12.5	
		4	14.3	0	

		5-6	57.1	81.3	
Score 2 (0-1/2/3-5)	Good (3-5)	0	7.7	17.4	0.1219
		1	19.2	19.6	
		2	15.4	21.7	
		3	15.4	17.4	
		4	19.2	10.9	
		5-6	23.1	13	
	Intermediate (2)	0	3.8	13.8	0.012
		1	3.8	19	
		2	15.4	8.6	
		3	11.5	12.1	
		4	15.4	24.1	
		5-6	50	22.4	
	Poor (0-1)	0	0	6.3	0.2985
		1	14.3	0	
		3	14.3	12.5	
4		14.3	0		
5-6		57.1	81.3		
Score 3 (0-1/2/3)	Good (3)	0	7.7	13.1	0.3227
		1	19.2	23	
		2	15.4	16.4	
		3	19.2	16.4	
		4	15.4	14.8	
		5-6	23.1	16.4	
	Intermediate (2)	0	5.9	20.7	0.2288
		1	5.9	17.2	

		2	11.8	6.9	
		3	11.8	6.9	
		4	29.4	17.2	
		5-6	35.3	31	
	Poor (0-1)	0	0	10	0.1545
		1	6.3	3.3	
		2	12.5	10	
		3	6.3	16.7	
		4	6.3	16.7	
		5-6	68.8	43.3	

Table III: Effect of collateral status on clinical outcome (collateral status was categorized as good/intermediate vs. poor across all 3 scores). Results are reported as Risk Ratios with 95% Confidence Intervals for dichotomous outcomes (mRS 0-2 and 0-1 at 90 days) and as Odds ratios with 95% Confidence Intervals for the ordinal mRS at 90 days.

For mRS 0-2 as outcome				
Collateral Score	Collateral Status	Unadjusted RR	95% CI	
Score 1	Intermediate/Good	1.5341	0.955	2.4643
	Poor	0.7829	0.264	2.3221
Score 2	Intermediate/Good	1.4579	0.9412	2.2584
	Poor	0.3684	0.0265	5.126
Score 3	Intermediate/Good	1.4022	0.8864	2.2182
	Poor	1.098	0.3258	3.7007
For mRS 0-1 as outcome				
Collateral Score	Collateral Status	Unadjusted RR	95% CI	
Score 1	Intermediate/Good	2.1818	1.0509	4.53
	Poor	0.7456	0.2008	2.7693
Score 2	Intermediate/Good	1.9439	1.0138	3.7273
	Poor	0.3684	0.0265	5.126
Score 3	Intermediate/Good	1.7138	0.9019	3.2566
	Poor	1.8824	0.2284	15.5138
For ordinal mRS				
Collateral Score	Collateral Status	Unadjusted OR	95% CI	
Score 1	Intermediate/Good	2.2526	1.162	4.3666
	Poor	1.2019	0.4034	3.5812
Score 2	Proportional odds assumption not valid			
Score 3	Intermediate/Good	1.7585	0.9215	3.3556
	Poor	2.6054	0.7815	8.6859

