

On-line Table 1: Baseline characteristics (unadjusted) of the studied patient population as stratified by leukoaraiosis severity^a

Characteristics	All Patients (n = 129)	None, Moderate LA (n = 100)	Severe LA (n = 29)	P Value
Age (yr)	71 (58–80)	65 (54–77)	81 (75–85)	<.001
Female sex	52 (40%)	36 (36%)	16 (55%)	.085
Admission NIHSS score	18 (12–21)	17 (11–21)	19 (17–22)	.094
Admission SBP (mm Hg)	148 (±28)	147 (±27)	150 (±28)	.608
Admission DBP (mm Hg)	79 (±19)	81 (±19)	74 (±17)	.115
Admission glucose level (mg/dL)	121 (106–142)	121 (106–136)	120 (112–144)	.925
Admission creatinine level (mg/dL)	1.00 (0.79–1.30)	0.91 (0.73–1.19)	1.30 (0.99–1.45)	.081
Admission white blood cell count (10 ³ /μL)	9.9 (±3.7)	10.1 (±3.7)	9.4 (±3.5)	.409
HbA1c (%)	6.1 (±1.1)	6.1 (±1.1)	5.8 (±0.6)	.365
LDL within 24 hours of admission (mg/dL)	79 (63–103)	80 (61–100)	78 (65–104)	.933
Time to rtPA (min)	118 (±61)	121 (±63)	105 (±53)	.400
Preadmission medications				
Antiplatelets	57 (44%)	41 (41%)	16 (55%)	.206
Oral anticoagulant	18 (14%)	11 (11%)	7 (24%)	.123
Statin	60 (47%)	44 (44%)	16 (55%)	.300
Antiglycemic	17 (13%)	13 (13%)	4 (14%)	1.000
Antihypertensive	60 (47%)	46 (46%)	14 (48%)	.836
Pre-existing risk factors				
Hypertension	101 (78%)	75 (75%)	26 (90%)	.125
Dyslipidemia	75 (58%)	56 (56%)	19 (66%)	.399
Diabetes	29 (23%)	22 (22%)	7 (24%)	.804
Prior stroke or transient ischemic attack ^b	29 (23%)	16 (16%)	13 (45%)	.002
Atrial fibrillation	44 (34%)	25 (25%)	19 (66%)	.001
Coronary artery disease	48 (37%)	32 (32%)	16 (55%)	.030
Congestive heart failure	26 (20%)	19 (19%)	7 (24%)	.601
Peripheral vascular disease	13 (10%)	6 (6%)	7 (24%)	.009
Tobacco use	46 (36%)	35 (35%)	11 (38%)	.827
Alcohol abuse	15 (12%)	13 (13%)	2 (7%)	.518
Final TOAST stroke mechanism				.014
Large-artery atherosclerosis	25 (19%)	22 (22%)	3 (10%)	
Cardioembolic	77 (60%)	53 (53%)	24 (83%)	
Stroke of other or undetermined cause	27 (21%)	25 (25%)	2 (7%)	
Leukoaraiosis grade (van Swieten score)				<.001
0	47 (36%)	47 (47%)	0 (0%)	
1	30 (23%)	30 (30%)	0 (0%)	
2	23 (18%)	23 (23%)	0 (0%)	
3	13 (10%)	0 (0%)	13 (45%)	
4	16 (12%)	0 (0%)	16 (55%)	
Acute intervention ^c				
IV rtPA	74 (57%)	55 (55%)	19 (66%)	.395
IA rtPA	78 (61%)	61 (61%)	17 (59%)	.832
Mechanical thrombectomy	109 (85%)	89 (89%)	20 (69%)	.017
Time to first run (min)	252 (180–338)	256 (190–345)	210 (146–315)	.483
Procedure duration (min)	92 (60–135)	99 (60–142)	90 (70–120)	.407
Time to recanalization (min) ^d	354 (285–443)	359 (299–439)	335 (271–451)	.329
Good collaterals (grades 3–4)	67 (55%)	48 (51%)	19 (70%)	.084
Good recanalization (TICI 2b–3)	104 (81%)	80 (80%)	24 (83%)	1.000
Parenchymal hemorrhage	37 (29%)	26 (26%)	11 (38%)	.246
Discharge mRS (0–2)	25 (19%)	23 (23%)	2 (7%)	.063
Discharge mRS (0–3)	45 (35%)	42 (42%)	3 (10%)	.002
In-hospital mortality (mRS 6)	42 (33%)	25 (25%)	17 (59%)	.001
Good 3-month mRS	55 (43%)	51 (51%)	4 (14%)	<.001

Note:—LA indicates leukoaraiosis; LDL, low-density lipoprotein; TOAST, Trial of Org 10172 in Acute Stroke Treatment; IA, intra-arterial; SBP, systolic blood pressure; DBP, diastolic blood pressure; HbA1c, glycated hemoglobin.

^a Data are No. (%), mean (± SD), or median (interquartile range).

^b Prior lesion not in the same hemisphere as current lesion.

^c Most patients had >1 treatment modality.

^d Defined as the time to final attempt at recanalization.

On-line Table 2: Baseline characteristics (unadjusted) of the studied patient population stratified according to 90-day outcome^a

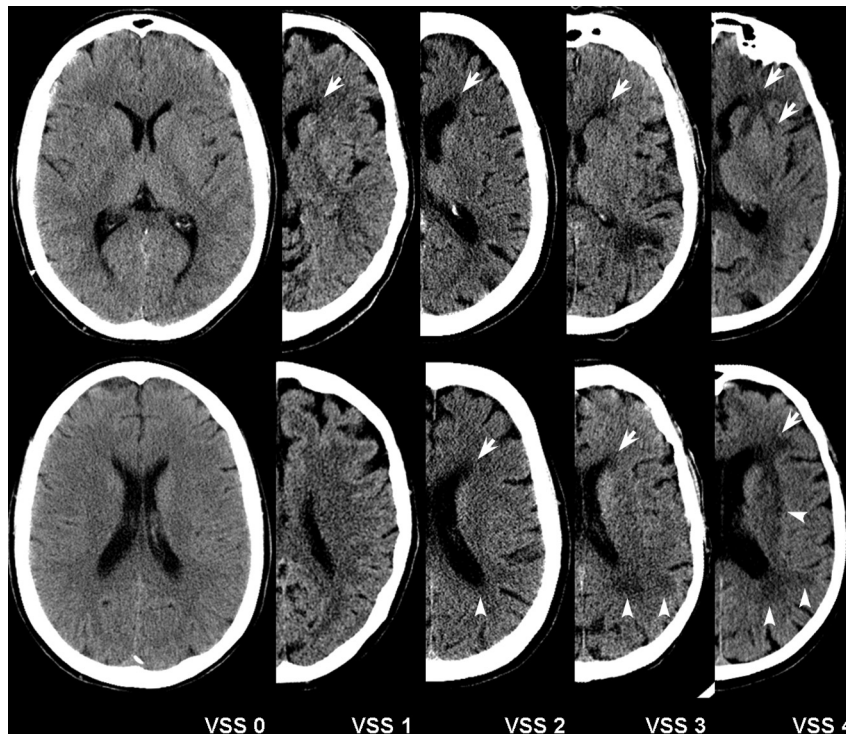
Characteristics	All Patients (n = 129)	Good Outcome (n = 55)	Poor Outcome (n = 74)	P Value
Age (yr)	71 (58–80)	63 (51–74)	77 (64–83)	<.001
Female sex	52 (40%)	20 (36%)	32 (43%)	.471
Admission NIHSS score	18 (12–21)	14 (10–19)	18 (16–22)	<.001
Admission SBP (mm Hg)	148 (±28)	146 (±24)	149 (±30)	.551
Admission DBP (mm Hg)	79 (±19)	79 (±16)	80 (±20)	.813
Admission glucose level (mg/dL)	121 (106–142)	117 (105–130)	124 (108–144)	.032
Admission creatinine level (mg/dL)	1.00 (0.79–1.30)	0.90 (0.79–1.14)	1.10 (0.80–1.40)	.020
Admission white blood cell count (10 ³ /μL)	9.9 (±3.7)	9.6 (±3.0)	10.1 (±4.1)	.402
HbA1c (%)	6.1 (±1.1)	6.0 (±0.8)	6.1 (±1.2)	.443
LDL within 24 hours of admission (mg/dL)	79 (63–103)	89 (66–115)	74 (59–92)	.031
Time to rtPA (min)	118 (±61)	124 (±78)	113 (±46)	.518
Preadmission medications				
Antiplatelets	57 (44%)	20 (36%)	37 (50%)	.152
Oral anticoagulant	18 (14%)	9 (16%)	9 (12%)	.609
Statin	60 (47%)	25 (45%)	35 (47%)	.860
Antiglycemic	17 (13%)	4 (7%)	13 (18%)	.116
Antihypertensive	60 (47%)	27 (49%)	33 (45%)	.721
Pre-existing risk factors				
Hypertension	101 (78%)	41 (75%)	60 (81%)	.395
Dyslipidemia	75 (58%)	34 (62%)	41 (55%)	.477
Diabetes	29 (23%)	12 (17%)	17 (23%)	1.000
Prior stroke or TIA ^b	29 (23%)	9 (16%)	20 (27%)	.201
Atrial fibrillation	44 (34%)	12 (22%)	32 (43%)	.014
Coronary artery disease	48 (37%)	15 (27%)	33 (45%)	.065
Congestive heart failure	26 (20%)	7 (13%)	19 (26%)	.079
Peripheral vascular disease	13 (10%)	2 (4%)	11 (15%)	.042
Tobacco use	46 (36%)	19 (35%)	27 (37%)	.854
Alcohol abuse	15 (12%)	8 (15%)	7 (10%)	.414
Final TOAST stroke mechanism				.193
Large-artery atherosclerosis	25 (19%)	12 (22%)	13 (18%)	
Cardioembolic	77 (60%)	28 (51%)	49 (66%)	
Stroke of other or undetermined cause	27 (21%)	15 (27%)	12 (16%)	
Leukoaraiosis grade (van Swieten scale score)				.005
0	47 (36%)	27 (49%)	20 (27%)	
1	30 (23%)	13 (24%)	17 (23%)	
2	23 (18%)	11 (20%)	11 (15%)	
3	13 (10%)	2 (4%)	12 (16%)	
4	16 (12%)	2 (4%)	14 (19%)	
Acute intervention ^c				
IV rtPA	74 (57%)	31 (56%)	43 (58%)	.859
IA rtPA	78 (61%)	35 (64%)	43 (58%)	.587
Mechanical thrombectomy	109 (85%)	48 (87%)	61 (82%)	.624
Time to first run, (min)	252 (180–338)	272 (177–360)	241 (180–317)	.482
Procedure duration (min)	92 (60–135)	91 (60–126)	98 (70–149)	.254
Good collaterals (grade 4)	29 (24%)	12 (23%)	17 (25%)	1.000
Good recanalization (TICI 2b–3)	104 (81%)	50 (91%)	54 (73%)	.013
Parenchymal hemorrhage	37 (29%)	7 (13%)	30 (41%)	.001

Note:—LDL, low-density lipoprotein; TOAST, Trial of Org 10172 in Acute Stroke Treatment; IA, intra-arterial; SBP, systolic blood pressure; DBP, diastolic blood pressure; HbA1c, glycated hemoglobin.

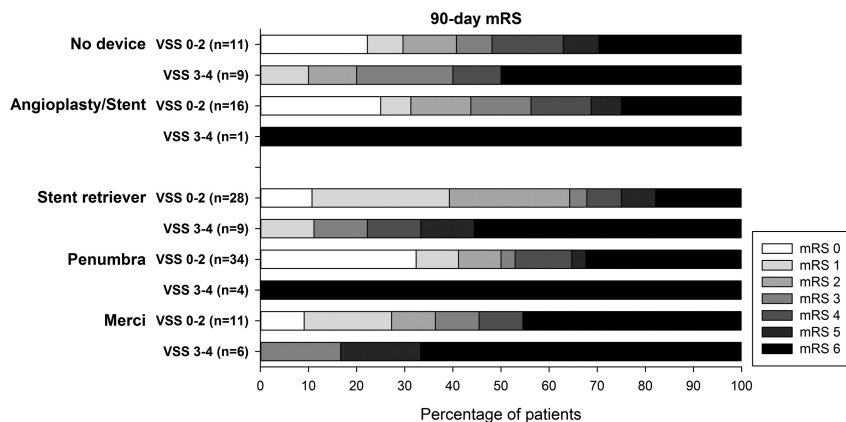
^a Data are No. (%), mean (± SD), or median (interquartile range).

^b Prior lesion not in the same hemisphere as current lesion.

^c Most patients had >1 acute treatment modality.



ON-LINE FIG 1. Representative noncontrast CT depicting advancing degrees of leukoaraiosis. The severity of leukoaraiosis was graded from 0 (no leukoaraiosis) to 2 (confluent white matter involvement from the ventricles to the gray matter) for the respective anterior (*white arrows*) and posterior (*arrowheads*) white matter at the levels of the choroid plexus (top row), section through the cella media (bottom row), and centrum semiovale (not shown). Summing the score from the anterior and posterior regions provides a total van Swieten scale score ranging from 0 to 4.²⁸



ON-LINE FIG 2. Outcome as stratified by leukoaraiosis severity and device type. Functional outcome at 3 months according to leukoaraiosis severity (unadjusted) and as stratified by an interventional approach. Scores of ≤ 2 or return to baseline on the mRS is considered a good outcome (darker shades indicate worse outcomes). Because most patients were treated with several modalities, they are grouped according to the interventional approach that achieved recanalization or that was used last if recanalization was not achieved. The van Swieten scale is the following: 0–2 = absent-to-moderate and 3–4 = severe leukoaraiosis.