

**Supplementary Table 1.** Baseline characteristics and clinical outcomes of anterior circulation stroke patients according to three etiologies

Characteristic	ICAS-O (n=67)	AT-O (n=50)	CA-O (n=229)	P
Age (yr)	65.5 (61.0–74.0)	68.5 (63.3–73.0)	74.0 (65.0–79.0)	<0.01
Female sex	13 (19.4)	6 (12.0)	117 (51.1)	<0.01
Initial NIHSS	9.0 (6.0–13.0)	10.0 (8.0–12.3)	14.0 (10.0–17.0)	<0.01
Hypertension	47 (70.1)	27 (54.0)	146 (63.8)	0.20
Diabetes	20 (29.9)	15 (30.0)	59 (25.8)	0.71
Hyperlipidemia	16 (23.9)	11 (22.0)	51 (22.3)	0.96
Current smoking	26 (38.8)	24 (48.0)	21 (9.2)	<0.01
Previous stroke	13 (19.4)	9 (18.0)	49 (21.4)	0.84
Atrial fibrillation	0 (0)	0 (0)	195 (85.2)	<0.01
Occlusion site				
Middle cerebral artery	46 (68.7)	30 (60.0)	161 (70.3)	0.36
M1	37 (55.2)	25 (50.0)	125 (54.6)	0.82
M2	10 (14.9)	7 (14.0)	40 (17.5)	0.78
Anterior cerebral artery	0 (0)	3 (4.0)	10 (4.4)	0.22
Internal carotid artery	21 (31.3)	38 (76.0)	83 (36.2)	<0.01
Common carotid artery	0 (0)	3 (6.0)	2 (0.9)	0.03
Clear onset	32 (47.8)	28 (54.9)	124 (54.1)	0.60
Intravenous tPA	12 (17.9)	13 (26.0)	72 (31.4)	0.09
Time variables (min)				
Onset-to-door	505.0 (155.0–1,177.0)	274.0 (132.5–752.3)	120.0 (36.5–354.0)	<0.01
Door-to-groin puncture	212.0 (149.0–596.0)	156.5 (123.5–313.8)	132.0 (110.0–178.0)	<0.01
Puncture-to-recanalization	73.0 (57.0–94.0)	61.5 (45.5–96.0)	51.0 (36.0–70.5)	<0.01*
Onset-to-recanalization	950.0 (528.0–1,960.0)	559.5 (320.5–1,351.5)	346.0 (237.5–571.0)	<0.01†
Modalities of EVT				
Suction thrombectomy	18 (26.9)	27 (54.0)	135 (59.0)	<0.01
Angioplasty	43 (64.2)	38 (76.0)	10 (4.4)	<0.01
Stent retriever	35 (52.2)	32 (64.0)	167 (72.9)	<0.01
Stent insertion	32 (47.8)	29 (58.0)	12 (5.2)	<0.01‡
Instant re-thrombosis	7 (10.4)	5 (10.0)	1 (0.4)	<0.01
Tirofiban use	7 (10.4)	4 (8.0)	2 (0.9)	<0.01
mTICI				<0.01
mTICI 0–1	1 (1.5)	2 (4.0)	16 (7.0)	
mTICI 2a	4 (6.0)	0 (0.0)	10 (4.4)	
mTICI 2b	15 (22.4)	26 (52.0)	97 (42.4)	
mTICI 3	47 (70.1)	22 (44.0)	106 (46.3)	
Successful recanalization (mTICI 2b–3)	62 (92.5)	48 (96.0)	203 (88.6)	0.27
Recanalization in follow-up imaging	55/62 (88.7)	43/46 (93.5)	198/213 (93.0)	0.52§
Symptomatic ICH	2/62 (3.2)	2/46 (4.3)	20/213 (9.4)	0.24
ICH at follow-up imaging	14/62 (22.6)	18/46 (39.1)	103/213 (48.4)	<0.01
Types of ICH				0.99
HI-1	6 (42.9)	7 (38.9)	39 (37.9)	
HI-2	5 (35.7)	7 (38.9)	34 (33.0)	
PH-1	2 (14.3)	3 (16.7)	16 (15.5)	
PH-2	1 (7.1)	1 (5.6)	14 (13.6)	
mRS 0–2 at 3 months	35 (52.2)	24 (48.0)	89 (38.9)	0.11
Mortality at 3 months	2 (3.0)	3 (6.0)	18 (7.9)	0.45

Values are presented as median (interquartile range) or number (%). The three groups were compared using Pearson chi-square test or the Kruskal-Wallis test, whichever was appropriate.

ICAS-O, intracranial arterial steno-occlusion; AT-O, artery-to-artery embolic occlusion; CA-O, cardioembolic occlusion; NIHSS, National Institutes of Health Stroke Scale; tPA, tissue plasminogen activator; EVT, endovascular treatment; mTICI, modified thrombolysis in cerebral infarction; ICH, intracerebral hemorrhage; HI, hemorrhagic infarction; PH, parenchymal hemorrhage; mRS, modified Rankin Scale.

\*†Puncture-to-recanalization time and onset-to-recanalization time were calculated in patients in whom successful recanalization was achieved; ‡Stent insertion refers to intracranial stenting in patients with ICAS-O or CA-O and extracranial (proximal) stenting in patients with AT-O; §Follow-up images were available for 62, 46, and 213 patients for the ICAS-O, the AT-O, and the CA-O group, respectively.