

Supplementary materials

Table S1. Changes of blood cells classification

Index	Group	before thrombus injection	60 mins after injection	60 mins after drug admin	6 days after drug admin
WBC (10 ⁹ /L)	Sham operation	7.34 (4.51 – 11.59)	4.70 (2.30 – 10.6)	5.36 (2.15 – 10.32)	10.84 (9.49 – 35.12)
	Vehicle	6.32 (4.93 – 11.93)	2.46 (0.95 – 7.07)	3.54 (1.47 – 8.49)	12.00 (9.98 – 16.50)
	Alteplase	6.93 (5.93 – 14.22)	5.24 (0.76 – 9.80)	5.03 (1.84 – 19.56)	12.56 (10.16 – 15.63)
	Retepase	5.85 (4.52 – 12.10)	3.98 (3.27 – 9.78)	5.38 (3.51 – 7.91)	11.46 (9.78 – 16.32)
RBC (10 ¹² /L)	Sham operation	4.82 (1.48 – 5.49)	5.00 (3.98 – 6.70)	4.94 (4.49 – 6.54)	6.28 (5.05 – 6.56)
	Vehicle	5.31 (5.14 – 5.91)	5.68 (4.98 – 6.56)	6.13 (5.23 – 7.54)	6.42 (5.76 – 7.12)
	Alteplase	4.70 (4.29 – 6.29)	5.58 (4.53 – 7.11)	5.93 (5.10 – 7.93)	6.04 (5.54 – 6.91)
	Retepase	5.53 (4.53 – 6.96)	6.22 (4.59 – 8.91)	6.40 (5.00 – 7.53)	6.43 (6.09 – 7.28)
NEUT (10 ⁹ /L)	Sham operation	5.06 (3.02 – 8.00)	3.40 (1.57 – 7.70)	3.78 (1.31 – 7.89)	7.24 (6.11 – 23.50)
	Vehicle	4.01 (2.27 – 9.21)	1.21 (0.35 – 5.09)	2.28 (0.83 – 6.72)	7.60 (6.11 – 12.26)
	Alteplase	4.31 (3.17 – 10.35)	2.97 (0.05 – 7.79)	3.43 (0.01 – 17.36)	8.30 (6.35 – 11.25)
	Retepase	4.07 (2.62 – 8.34)	2.50 (1.59 – 7.25)	3.67 (2.20 – 5.42)	7.79 (5.20 – 11.26)
LYMPH (10 ⁹ /L)	Sham operation	1.65 (1.11 – 2.93)	1.08 (0.57 – 2.09)	1.21 (0.65 – 1.69)	2.84 (2.31 – 4.62)
	Vehicle	1.51 (1.36 – 1.98)	1.09 (0.50 – 1.38)	0.96 (0.55 – 1.19)	2.98 (2.70 – 3.26)
	Alteplase	2.21 (1.47 – 2.88)	1.31 (0.64 – 1.78)	1.20 (0.70 – 1.65)	3.19 (2.74 – 3.98)
	Retepase	1.50 (0.98 – 2.83)	0.95 (0.67 – 1.87)	1.19 (0.70 – 2.16)	3.20 (2.13 – 4.01)
MONO (10 ⁹ /L)	Sham operation	0.36 (0.15 – 0.61)	0.13 (0.02 – 0.48)	0.14 (0.06 – 0.44)	0.52 (0.34 – 6.45)
	Vehicle	0.43 (0.17 – 0.56)	0.04 (0.03 – 0.40)	0.14 (0.03 – 0.33)	0.70 (0.46 – 1.24)
	Alteplase	0.43 (0.29 – 0.79)	0.19 (0.01 – 0.46)	0.25 (0.01 – 0.75)	0.50 (0.34 – 0.60)
	Retepase	0.34 (0.20 – 0.65)	0.14 (0.04 – 0.49)	0.35 (0.15 – 0.89)	0.62 (0.28 – 0.91)
EOS (10 ⁹ /L)	Sham operation	0.25 (0.11 – 0.73)	0.16 (0.06 – 0.51)	0.17 (0.03 – 0.51)	0.25 (0.11 – 0.47)
	Vehicle	0.24 (0.15 – 0.37)	0.08 (0.05 – 0.17)	0.12 (0.03 – 0.19)	0.32 (0.13 – 0.48)
	Alteplase	0.42 (0.16 – 0.53)	0.17 (0.05 – 0.27)	0.13 (0.09 – 0.35)	0.31 (0.20 – 0.36)
	Retepase	0.24 (0.15 – 0.40)	0.12 (0.07 – 0.29)	0.20 (0.10 – 0.29)	0.32 (0.18 – 0.79)
BASO (10 ⁹ /L)	Sham operation	0.06 (0.01 – 0.21)	0.02 (0.01 – 0.04)	0.02 (0.01 – 0.05)	0.04 (0.02 – 0.20)
	Vehicle	0.08 (0.03 – 0.12)	0.02 (0.02 – 0.03)	0.03 (0.02 – 0.03)	0.05 (0.03 – 0.08)
	Alteplase	0.03 (0.01 – 0.20)	0.01 (0.01 – 0.05)	0.01 (0.01 – 0.09)	0.05 (0.02 – 0.07)
	Retepase	0.02 (0.01 – 0.10)	0.01 (0.01 – 0.05)	0.01 (0.01 – 0.13)	0.06 (0.03 – 0.08)
LUC (10 ⁹ /L)	Sham operation	0.01 (0.01 – 0.02)	0.01 (0.01 – 0.01)	0.01 (0.01 – 0.01)	0.03 (0.02 – 0.23)
	Vehicle	0.03 (0.01 – 0.05)	0.01 (0.01 – 0.01)	0.02 (0.01 – 0.03)	0.04 (0.02 – 0.07)

Index	Group	before thrombus injection	60 mins after injection	60 mins after drug admin	6 days after drug admin
	Alteplase	0.05 (0.02 – 0.06)	0.02 (0.01 – 0.04)	0.01 (0.01 – 0.03)	0.05 (0.03 – 0.10)
	Retepase	0.05(0.01 – 0.08)	0.02 (0.01 – 0.06)	0.03 (0.01 – 0.05)	0.04 (0.03 – 0.17)
NEUT (%)	Sham operation	66.55 (58.40 – 69.10)	70.55 (68.00 – 74.70)	68.15 (61.10 – 76.40)	65.60 (63.00 – 71.00)
	Vehicle	65.45 (46.20 – 77.30)	54.60 (36.40 – 72.00)	63.70 (52.70 – 79.20)	64.10 (61.00 – 74.30)
	Alteplase	63.05 (49.40 – 72.70)	64.56.(6.50 – 79.50)	70.00 (0.70 – 88.80)	66.25 (62.30 – 74.70)
	Retepase	64.00 (47.10 – 74.80)	68.75 (40.80 – 76.60)	65.50 (39.50 – 76.20)	67.95 (51.80 – 69.00)
	Sham operation	24.85 (20.70 – 28.60)	22.40 (16.70 – 26.40)	22.80 (16.40 – 30.40)	26.10 (13.10 – 28.50)
LYMPH (%)	Vehicle	23.20 (14.20 – 40.20)	39.70 (19.50 – 52.50)	29.40 (14.00 – 39.60)	25.50 (18.00 – 29.80)
	Alteplase	26.30 (19.90 – 35.40)	27.45 (13.00 – 84.80)	20.85 (5.70 – 89.80)	25.85 (21.00 – 29.60)
	Retepase	24.15 (17.10 – 37.80)	19.80 (13.90 – 26.70)	24.05 (13.90 – 37.60)	24.70 (21.80 – 35.30)
	Sham operation	3.75 (3.40 – 8.40)	2.50 (1.00 – 4.60)	2.85 (2.00 – 4.90)	4.80 (3.40 – 18.40)
MONO (%)	Vehicle	5.20 (3.00 – 9.30)	1.80 (1.40 – 5.70)	3.45 (1.90 – 5.40)	5.70 (3.90 – 10.10)
	Alteplase	5.40 (2.90 – 8.20)	2.65 (1.00 – 9.40)	4.00 (0.70 – 8.20)	3.85 (2.40 – 5.30)
	Retepase	4.90 (3.60 – 7.30)	3.65 (1.30 – 6.10)	6.30 (3.50 – 15.50)	4.30 (2.60 – 7.70)
	Sham operation	3.70 (1.80 – 6.60)	3.35 (1.30 – 6.70)	3.30 (0.90 – 7.00)	2.50 (0.30 – 3.90)
EOS (%)	Vehicle	3.40 (2.20 – 5.00)	3.30 (2.40 – 5.30)	2.40 (2.00 – 4.80)	2.35 (1.30 – 3.90)
	Alteplase	3.90 (2.30 – 7.30)	3.85 (1.00 – 6.50)	2.50 (0.70 – 8.00)	2.40 (1.40 – 3.30)
	Retepase	4.05 (1.50 – 6.60)	3.60 (1.20 – 7.40)	3.75 (1.20 – 6.70)	2.35 (1.80 – 6.30)
	Sham operation	0.35 (0.20 – 1.30)	0.30 (0.10 – 0.80)	0.45 (0.20 – 0.70)	0.30 (0.20 – 0.60)
BASO (%)	Vehicle	1.10 (0.50 – 2.10)	0.80 (0.40 – 1.80)	0.70 (0.40 – 1.90)	0.40 (0.30 – 0.50)
	Alteplase	0.35 (0.01 – 3.20)	0.25 (0.10 – 0.80)	0.25 (0.10 – 0.80)	0.35 (0.20 – 0.50)
	Retepase	0.40 (0.10 – 1.50)	0.30 (0.10 – 1.50)	0.25 (0.10 – 2.20)	0.40 (0.30 -0.50)
	Sham operation	0.15 (0.10 – 0.30)	0.10 (0.10 – 0.30)	0.10 (0.10 – 0.20)	0.30 (0.20 – 0.70)
LUC (%)	Vehicle	0.35 (0.10 – 0.80)	0.30 (0.10 – 0.50)	0.45 (0.20 – 0.90)	0.30 (0.20 – 0.60)
	Alteplase	0.55 (0.20 – 0.90)	0.20 (0.01 – 0.80)	0.15 (0.01 – 0.60)	0.35 (0.20 – 0.90)
	Retepase	0.65 (0.20 – 1.20)	0.35 (0.10 – 1.50)	0.45 (0.10 – 0.90)	0.30 (0.20 – 1.70)
	Sham operation	123 (114 - 132)	125.5 (114 – 160)	127 (120 - 155)	152.5 (133 - 156)
HGB (g/L)	Vehicle	133 (128 – 140)	143 (133 -160)	153 (126 - 191)	161.5 (149 - 170)

Index	Group	before thrombus injection	60 mins after injection	60 mins after drug admin	6 days after drug admin
	Alteplase	123.5 (117 - 158)	132.5 (121 - 175)	149.5 (121 - 193)	152 (137 - 162)
	Retepase	133 (117 - 165)	133 (30 - 167)	153.5 (129 - 181)	156 (147 - 176)
	Sham operation	39.95 (11.10 – 43.90)	39.30 (29.50 – 51.00)	40.35 (31.30 – 49.30)	43.40 (36.30 – 53.00)
HCT (%)	Vehicle	44.10 (41.20 – 45.60)	44.40 (40.70 – 52.10)	47.95 (42.20 – 62.70)	44.10 (40.20 – 55.70)
	Alteplase	37.55 (32.70 – 51.80)	42.35 (34.80 – 59.00)	43.15 (37.30 – 64.20)	43.00 (38.80 – 52.30)
	Retepase	42.25 (35.40 – 51.40)	45.40 (33.60 – 67.50)	45.35 (37.70 – 57.70)	44.55 (40.50 – 47.90)
	Sham operation	25.75 (23.60 – 78.70)	25.05 (23.30 – 28.60)	25.15 (23.20 – 27.50)	23.85 (23.40 – 27.20)
MCH (pg)	Vehicle	25.25 (23.70 – 26.10)	25.60 (23.50 – 26.60)	24.85 (23.10 – 26.00)	24.65 (22.70 – 28.30)
	Alteplase	25.10 (23.90 – 31.60)	24.00 (23.20 – 28.10)	23.75 (23.30 – 27.70)	24.75 (23.40 – 27.30)
	Retepase	24.15 (23.80 – 27.60)	23.65 (3.40 – 26.50)	23.95 (23.50 – 25.70)	24.25 (23.70 – 25.70)
	Sham operation	301 (289 - 339)	314.5 (299 - 385)	316 (298 - 331)	350.5 (294 - 388)
MCHC (g/L)	Vehicle	308 (287 - 323)	322 (307 - 326)	307.5 (298 - 331)	367.5 (288 - 391)
	Alteplase	322 (305 - 417)	313 (297 - 366)	322.5 (300 - 370)	343 (309 - 390)
	Retepase	325.5 (302 - 361)	318.5 (44 - 361)	323 (303 - 343)	348.5 (339 - 386)
	Sham operation	12.20 (11.90 – 14.30)	13.20 (12.70 – 14.10)	12.95 (12.10 – 17.10)	13.95 (12.20 – 15.00)
RDW (%)	Vehicle	12.65 (11.90 – 14.90)	13.50 (12.30 – 14.90)	12.95 (12.00 – 15.20)	13.90 (12.70 – 16.00)
	Alteplase	12.30 (11.80 – 14.90)	13.15 (12.70 – 15.70)	14.30 (12.60 – 17.00)	14.15 (12.80 – 15.30)
	Retepase	12.85 (11.90 – 14.80)	14.10 (12.10 – 15.00)	13.90 (12.70 – 16.50)	14.25 (13.40 – 15.90)
	Sham operation	292 (222 - 824)	235 (196 - 272)	227.5 (197 - 245)	317.5 (118 - 438)
PLT (10 ⁹ /L)	Vehicle	303 (199 - 372)	214 (129 - 251)	209.5 (112 - 301)	272 (179 - 314)
	Alteplase	332.5 (237 - 690)	242.5 (149 - 266)	227.5 (123 - 277)	342 (315 - 383) [#]
	Retepase	304.5 (237 - 779)	231 (111 - 282)	242 (163 - 272)	331 (270 - 459)
	Sham operation	17.80 (16.50 – 28.70)	17.15 (14.50 – 20.60)	16.80 (15.40 – 20.40)	20.00 (14.90 – 25.70)
MPV (fL)	Vehicle	16.35 (15.40 – 16.80)	16.00 (13.90 – 16.50)	16.25 (14.60 – 17.80)	15.75 (13.90 – 24.00)

Index	Group	before thrombus injection	60 mins after injection	60 mins after drug admin	6 days after drug admin
	Alteplase	17.00 (11.30 – 25.00)	15.60 (11.40 – 23.10)	14.90 (14.30 – 21.20)	18.05 (15.80 – 23.10)
	Reteplase	15.30 (10.10 – 28.50)	14.85 (9.80 – 18.40)	14.35 (9.80 – 20.10)	18.60 (13.50 – 22.00)

Data presented as median (range: min - max). (n = 6).

Compared to vehicle group, # $P < 0.05$.

Table S2. Changes of the blood biochemical indexes

Index	Group	before thrombus injection	60 mins after injection	60 mins after drug admin	6 days after drug admin
ALP (U/L)	Sham operation	72.95 (34.60 – 109.90)	84.55 (35.30 – 115.80)	75.25 (35.90 – 110.80)	113.00 (79.40 – 130.60)
	Vehicle	69.20 (62.40 – 141.50)	71.20 (63.40 – 155.10)	87.60 (64.50 – 154.70)	98.50 (56.00 – 189.10)
	Alteplase	94.80 (55.30 – 166.80)	91.60 (54.50 – 187.10)	82.75 (59.20 – 166.40)	125.15 (84.60 – 202.60)
	Reteplase	91.85 (68.90 – 114.70)	100.65 (75.20 – 116.90)	90.95 (75.20 – 158.60)	128.55 (84.60 – 163.50)
ALT (U/L)	Sham operation	24.0 (19.0 – 34.0)	25.0 (19.0 – 36.0)	26.0 (18.0 – 36.0)	27.5 (20.0 – 30.0)
	Vehicle	23.5 (21.0 – 26.0)	22.5 (20.0 – 30.0)	23.0 (20.0 – 27.0)	25.5 (23.0 – 31.0)
	Alteplase	27.0 (22.0 – 30.0)	25.5 (19.0 – 32.0)	27.0 (17.0 – 29.0)	26.5 (24.0 – 43.0)
	Reteplase	24.5 (20.0 – 29.0)	24.0 (21.0 – 33.0)	25.0 (21.0 – 34.0)	25.5 (21.0 – 41.0)
AST (U/L)	Sham operation	20.85 (17.80 – 26.90)	20.15 (16.10 – 29.80)	21.15 (15.50 – 28.40)	23.10 (20.00 – 35.50)
	Vehicle	25.05 (19.70 – 30.05)	20.15 (17.40 – 33.60)	22.70 (19.00 – 28.80)	29.45 (24.90 – 31.60)
	Alteplase	23.55 (18.50 – 28.70)	23.65 (16.50 – 25.40)	23.85 (18.40 – 30.10)	26.25 (24.80 – 30.00)
	Reteplase	20.35 (16.90 – 23.00)	21.80 (17.50 – 24.00)	24.35 (19.80 – 28.20)	23.90 (20.00 – 31.70)
CK (U/L)	Sham operation	115.5 (78 - 243)	158 (96 - 348)	147.5 (100 - 375)	137 (71 - 226)
	Vehicle	128.5 (89 - 212)	167.5 (88 - 341)	167 (107 - 265)	159 (98 - 208)
	Alteplase	134.5 (98 - 322)	191.5 (125 - 315)	217.5 (167 - 372)	193 (151 - 230)
	Reteplase	128.5 (107 - 182)	183 (130 - 243)	188.5 (130 - 243)	132.5 (107 - 147)
UREA (mmol/L)	Sham operation	5.40 (4.43 – 6.59)	4.90 (4.14 – 6.47)	5.09 (4.04 – 6.57)	3.93 (3.24 – 4.57)
	Vehicle	5.37 (4.15 – 6.41)	5.17 (4.04 – 5.93)	4.46 (3.78 – 6.11)	4.41 (3.25 – 5.14)
	Alteplase	5.69 (4.74 – 6.32)	4.73 (4.16 – 5.51)	4.82 (3.41 – 6.00)	4.54 (3.60 – 4.81)
	Reteplase	4.72 (3.13 – 6.13)	4.29 (3.25 – 5.12)	4.57 (3.32 – 5.68)	4.12 (3.46 – 4.24)

Index	Group	before thrombus injection	60 mins after injection	60 mins after drug admin	6 days after drug admin
CREA ($\mu\text{mol/L}$)	Sham operation	47.70 (37.70 – 59.20)	45.56 (32.90 – 53.60)	47.95 (36.10 – 69.60)	51.35 (48.70 – 53.70)
	Vehicle	46.20 (35.70 – 60.30)	42.90 (31.40 – 55.00)	39.25 (32.30 – 48.00)	51.30 (42.00 – 62.20)
	Alteplase	51.30 (19.20 – 66.60)	44.35 (34.50 – 49.10)	37.80 (26.20 – 53.20)	53.65 (43.90 – 71.10)
	Reteplase	42.90 (37.50 – 50.70)	39.80 (33.40 – 46.30)	34.70 (29.80 – 43.30)	49.65 (45.30 – 57.40)
TP2 (g/L)	Sham operation	50.30 (43.20 – 53.80)	50.20 (45.40 – 54.10)	51.60 (49.20 – 55.00)	57.70 (49.90 – 59.50)
	Vehicle	51.55 (43.70 – 59.70)	54.55 (45.10 – 60.30)	53.00 (50.20 – 57.00)	57.90 (45.00 – 69.60)
	Alteplase	53.90 (44.30 – 61.40)	51.60 (44.10 – 57.50)	52.25 (36.60 – 56.90)	56.05 (51.70 – 65.70)
	Reteplase	48.95 (42.60 – 64.90)	51.65 (4.60 – 56.50)	50.40 (49.80 – 54.40)	57.40 (52.90 – 61.20)
ALB (g/L)	Sham operation	33.25 (27.50 – 34.50)	31.65 (28.80 – 34.80)	33.30 (31.20 – 34.10)	33.95 (29.90 – 36.60)
	Vehicle	32.35 (29.30 – 35.50)	33.60 (29.80 – 40.20)	32.80 (32.30 – 34.60)	36.55 (25.90 – 37.00)
	Alteplase	32.50 (29.10 – 35.70)	30.75 (26.90 – 38.30)	30.85 (22.50 – 34.40)	33.30 (30.40 – 35.30)
	Reteplase	30.90 (28.20 – 40.10)	31.90 (29.80 – 35.70)	31.60 (29.80 – 33.00)	34.3 (32.70 – 38.20)
GLB (g/L)	Sham operation	17.50 (15.70 – 20.40)	18.70 (16.60 – 19.30)	19.45 (16.00 – 21.00)	22.00 (20.00 – 28.60)
	Vehicle	18.15 (14.40 – 25.10)	19.45 (15.30 – 23.50)	19.35 (17.60 – 24.70)	21.00 (17.10 – 32.60)
	Alteplase	19.30 (15.10 – 28.60)	18.80 (16.00 – 25.60)	18.60 (14.10 – 25.50)	24.20 (16.60 – 31.50)
	Reteplase	18.20 (14.40 – 24.80)	19.45 (17.70 – 21.40)	19.50 (16.80 – 22.60)	22.45 (18.80 – 25.40)
A/G	Sham operation	4.24 (1.64 – 6.20)	4.38 (1.62 – 10.78)	4.44 (1.52 – 19.69)	4.40 (1.05 – 7.02)
	Vehicle	4.32 (1.35 – 5.96)	4.51 (1.38 – 7.21)	4.30 (1.31 – 7.17)	4.81 (1.13 – 7.07)
	Alteplase	4.30 (1.15 – 5.98)	4.14 (1.13 – 14.26)	3.95 (1.16 – 14.87)	4.95 (1.09 – 6.10)
	Reteplase	3.92 (1.42 – 7.89)	4.28 (1.53 – 15.24)	4.15 (1.41 – 7.85)	5.20 (1.41 – 5.83)

Index	Group	before thrombus injection	60 mins after injection	60 mins after drug admin	6 days after drug admin
GLU (mmol/L)	Sham operation	5.84 (5.23 – 6.20)	7.14 (5.66 – 10.78)	6.59 (5.09 – 19.69)	5.23 (4.35 – 5.51)
	Vehicle	5.18 (4.73 – 5.96)	5.95 (5.42 – 7.21)	5.80 (5.47 – 7.17)	5.40 (4.11 – 6.24)
	Alteplase	5.73 (5.04 – 5.98)	9.65 (5.31 – 14.26)	7.25 (5.61 – 14.87)	5.41 (4.90 – 5.73)
	Reteplase	5.91 (5.16 – 7.89)	7.70 (6.15 – 15.24)	6.24 (4.86 – 7.85)	5.67 (5.25 – 5.78)
CHO (mmol/L)	Sham operation	4.24 (2.71 – 5.19)	4.38 (3.05 – 4.98)	4.44 (4.09 – 5.04)	4.93 (3.89 – 7.02)
	Vehicle	4.32 (3.71 – 5.10)	4.51 (3.82 – 5.26)	4.30 (3.84 – 5.56)	5.53 (2.99 – 7.07)
	Alteplase	4.30 (3.39 – 5.34)	4.14 (3.39 – 5.17)	3.95 (3.16 – 4.81)	5.06 (4.39 – 6.10)
	Reteplase	3.92 (3.67 – 4.89)	4.28 (3.86 – 4.78)	4.15 (3.19 – 4.64)	5.22 (4.70 – 5.83)
TRIGL (mmol/L)	Sham operation	0.49 (0.29 – 0.76)	0.46 (0.34 – 0.68)	0.46 (0.38 – 0.69)	0.64 (0.55 – 1.03)
	Vehicle	0.46 (0.40 – 0.60)	0.53 (0.31 – 0.73)	0.45 (0.39 – 0.56)	0.76 (0.40 – 1.25)
	Alteplase	0.48 (0.34 – 0.63)	0.41 (0.34 – 0.67)	0.41 (0.30 – 0.57)	0.74 (0.64 – 1.03)
	Reteplase	0.37 (0.32 – 0.66)	0.40 (0.32 – 0.54)	0.38 (0.35 – 0.57)	0.70 (0.65 – 1.26)
K ⁺ (mmol/L)	Sham operation	3.93 (3.50 – 4.44)	3.70 (3.22 – 4.45)	3.84 (3.33 – 4.36)	4.24 (3.77 – 4.53)
	Vehicle	4.05 (3.40 – 4.32)	3.98 (3.74 – 4.20)	3.94 (3.63 – 4.20)	4.37 (4.01 – 4.88)
	Alteplase	3.86 (3.54 – 4.35)	3.58 (3.22 – 3.94)	3.67 (2.79 – 4.02)	4.67 (4.28 – 4.89)
	Reteplase	3.78 (3.21 – 4.39)	3.33 (3.01 – 3.85)	3.78 (3.30 – 4.10)	4.34 (3.89 – 5.20)
Na ⁺ (mmol/L)	Sham operation	148 (144 - 151)	146 (144 -149)	147.5 (141 - 159)	139.5 (134 - 145)
	Vehicle	147 (141 - 153)	146 (143 - 152)	145.5 (144 - 150)	144 (139 - 147)
	Alteplase	145 (132 - 153)	141.5 (126 - 148)	139 (126 - 148)	137 (122 - 145)
	Reteplase	145 (132 - 149)	143 (129 - 146)	144 (128 - 148)	140 (122- 148)
Cl ⁻ (mmol/L)	Sham operation	108.05 (106.5 – 112.8)	107.85 (103.4 – 111.6)	109.15 (103.8 – 115.8)	100.45 (94.8 – 102.8)
	Vehicle	106.2 (104.7 – 114.7)	106.3 (104.8 – 113.3)	107.55 (105.6 – 113.0)	105.55 (98.2 – 108.2)

Index	Group	before thrombus injection	60 mins after injection	60 mins after drug admin	6 days after drug admin
	Alteplase	105.8 (98 – 110.6)	103.3 (94.3 – 107.9)	99.8 (95.5 – 107.6)	100.65 (88.7- 105)
	Reteplase	105.2 (99.2 – 110.1)	104.5 (96 – 106.8)	106.55 (94.8 – 111.3)	100.7 (87.6 – 108.8)
	Sham operation	2.62 (2.35 – 2.80)	2.74 (2.46 – 2.96)	2.72 (2.60 – 2.95)	2.72 (2.45 – 2.89)
Ca ²⁺ (mmol/L)	Vehicle	2.51 (2.25 – 2.74)	2.66 (2.41 – 2.77)	2.60 (2.50 – 2.75)	2.75 (2.30 – 2.99)
	Alteplase	2.60 (2.42 – 2.68)	2.56 (2.33 – 2.69)	2.49 (2.50 – 2.75)	2.76 (2.61 – 2.89)
	Reteplase	2.55 (2.31 – 2.76)	2.66 (2.49 – 2.78)	2.62 (2.50 – 2.78)	2.78 (2.55 – 2.90)
BILT (μmol/L)	Sham operation	0.55 (0.01 – 1.0)	0.40 (0.10 – 2.0)	0.55 (0.1 – 2.4)	0.55 (0.25 – 1.2)
	Vehicle	0.65 (-0.3 – 1.2)	0.25 (0.01 – 1.3)	0.65 (0.4 – 1.6)	0.55 (0.1 – 1.3)
	Alteplase	0.50 (0.01 – 1.1)	0.70 (0.3 – 1.2)	0.85 (0.7 – 1.4)	0.70 (0.5 – 1.6)
	Reteplase	0.55 (0.20 – 1.1)	0.60 (0.5 – 2.6)	1.0 (0.1 – 1.4)	0.55 (0.3 – 0.7)

Data presented as median (range: min - max). (n = 6).

Table S3. Changes of blood gas indexes

Index	Group	before thrombus injection	60 mins after injection	right after drug admin	60 mins after drug admin	120 mins after drug admin
pH	Sham operation	7.27 (7.25 – 7.30)	7.26 (7.23 – 7.29)	7.27 (7.22 – 7.27)	7.25 (7.17 – 7.29)	7.28 (7.23 – 7.32)
	Vehicle	7.28 (7.27 – 7.31)	7.25 (7.24 – 7.35)	7.26 (7.24 – 7.32)	7.30 (7.24 – 7.33)	7.31 (7.19 – 7.37)
	Alteplase	7.29 (7.27 – 7.31)	7.26 (7.15 – 7.35)	7.27 (7.10 – 7.32)	7.25 (7.14 – 7.31)	7.26 (7.12 – 7.31)
	Reteplase	7.29 (7.24 – 7.34)	7.30 (7.24 – 7.35)	7.31 (7.21 – 7.35)	7.27 (7.18 – 7.30)	7.26 (7.16 – 7.39)
PCO ₂ (mmHg)	Sham operation	50.85 (43.7 – 58.3)	50.05 (43.5 – 58.2)	53.45 (46.7 – 62.6)	52.85 (40.1 – 69.2)	46.85 (44.4 – 60.2)
	Vehicle	50.4(33.4 – 59.1)	50.5 (38.2 – 56.3)	48.5 (41.4 – 52.5)	44.65 (36.9 – 51.3)	40.45 (35.2 – 62.0)
	Alteplase	51.6 (41.6 – 55.5)	47.7 (37.4 – 73.8)	50.6 (41.7 – 82.8)	52.35 (43.3 – 72.8)	52.45 (35.4 – 73.3)
	Reteplase	46.35 (45.3 – 55.6)	49.75 (37.5 – 58.8)	49.1 (41.2 – 54.2)	52.1 (45.5 – 61.9)	55.4 (36.4 - 71)
PO ₂ (mmHg)	Sham operation	79 (74 - 237)	101.5 (85 - 241)	105.5 (87 - 237)	170 (83 - 311)	109 (81 - 299)
	Vehicle	136.5 (27- 236)	174 (99 - 219)	178 (99 - 234)	101 (98 - 224)	101.5 (77 - 337)
	Alteplase	327.5 (82 - 501)	217 (102 - 269)	207 (99 - 267)	236.5 (110 - 298)	188.5 (102 - 276)
	Reteplase	76.5 (71 - 570)	191.5 (86 - 361)	224.5 (119 - 367)	172 (106 - 271)	89.5 (83 - 367)
TCO ₂ (mmol/L)	Sham operation	24.5 (23 - 28)	23 (22 -28)	25 (23 - 28)	24.5 (21 - 28)	23.5 (21 - 29)
	Vehicle	26.5 (17 - 29)	25 (21 - 26)	23 (22 - 26)	23 (21 - 25)	22 (21 - 26)
	Alteplase	26 (22 - 28)	23 (21 - 29)	25.5 (23 - 30)	24.5 (22 - 28)	25.5 (19 - 26)
	Reteplase	25.5 (23 - 27)	25 (22 - 29)	25 (22 - 27)	24.5 (23 - 29)	25 (22 - 29)
sO ₂ (%)	Sham operation	94 (92 - 100)	97 (94 - 100)	97.5 (94 - 100)	98.5 (95 - 100)	97 (94 - 100)
	Vehicle	98 (95 -100)	99 (97 - 100)	99(97 - 100)	97 (97 - 100)	97 (95 - 100)
	Alteplase	100 (95 - 100)	99.5 (97 - 100)	100 (97 - 100)	99.5 (98 - 100)	99 (97 - 100)
	Reteplase	94 (90 -100)	98 (95 - 100)	100 (98 - 100)	98.5 (96 - 100)	96.5 (92 - 100)
HCO ₃ ⁻ (mmol/L)	Sham operation	23.05 (21.30 – 26.70)	21.6 (20.4 – 26.7)	23.3 (21.6 – 26.4)	23.1 (19.4 – 26.7)	22.2 (19.9 - 27)
	Vehicle	25.3 (16.3 – 27.2)	23.1 (19.6 – 25.0)	21.75 (20.3 – 24.9)	21.8 (19.6 – 23.1)	20.95 (19.7 – 23.8)

	Alteplase	24.35 (20.6 – 26.7)	21.7 (19.9 – 26.8)	24.1 (21.3 – 27.7)	22.7 (20.9 – 25.8)	23.6 (17.9 – 24.3)
	Retepase	24.1 (21.7 – 25.5)	23.35 (20.7 – 27.5)	23.1 (21.1 – 25.3)	22.9 (21.2 – 27.5)	23.35 (20.6 – 27.0)
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BEecf (mmol/L)	Sham operation	-3.5 (-6 - 0)	-6 (-7 - 0)	-3.5 (-6 - -1)	-5 (-7 - 0)	-4.5 (-7 - 0)
	Vehicle	-1 (-10 - 0)	-4 (-8 - -1)	-5 (-7 - -1)	-5 (-6 - -3)	-5 (-7 - -3)
	Alteplase	-2.5 (-6 - 0)	-4.5 (-7 - 0)	-3.5 (-5 - 0)	-4.5 (-7 - -1)	-5 (-8 - -2)
	Retepase	-2.5 (-5 - 0)	-3.5 (-5 - 1)	-4 (-6 - -1)	-4.5 (-6 - 0)	-3.5 (-6 - 0)

Data presented as median (range: min - max). (n = 6).