Supplemental Table 1: Methods of biomarker measurement.

Biomarker	Manufacturer	Catalogue number	Matrix type	Detection range	Units	Num of samples below the detection range*	Num of samples above the detection range*
MMP-1	Millipore	HMMP2MAG-55K	Plasma	27- 20000	pg/mL	0	0
MMP-2	Millipore	MMP2MAG-55K	Plasma	68- 50000	pg/mL	0	0
MMP-3	Millipore	HMMP1MAG-55K	Plasma	146-150000	pg/mL	0	0
MMP-7	Millipore	HMMP2MAG-55K	Plasma	548- 400000	pg/mL	0	0
MMP-9	Millipore	HMMP2MAG-55K	Plasma	14-10000	pg/mL	0	0
MMP-10	Millipore	HMMP2MAG-55K	Plasma	27- 20000	pg/mL	0	0
MMP-12	Millipore	HMMP1MAG-55K	Plasma	98- 100000	pg/mL	0	0
MMP-13	Millipore	HMMP1MAG-55K	Plasma	58- 60000	pg/mL	0	0
TIMP-1	Millipore	HTMP1MAG-54K	Plasma	20-20000	pg/mL	0	0
TIMP-2	Millipore	HTMP1MAG-54K	Plasma	49-50000	pg/mL	0	0
BDNF	Randox	Cerebral Array I EV3573	Serum	0 – 7500	pg/mL	0	0
CRP	Randox	Cerebral Array I EV3573	Serum	0-12	mg/L	0	15
D-dimer	Randox	Cerebral Array I EV3573	Serum	0-2000	ng/mL	0	41
FABP	Randox	Cerebral Array I EV3573	Serum	0 – 100	ng/mL	0	4
GFAP	Randox	Cerebral Array I EV3573	Serum	0 – 120	ng/mL	94	0
IL-6	Randox	Cerebral Array I EV3573	Serum	0 – 550	pg/ml	0	0
NGAL	Randox	Cerebral Array II EV3637	Serum	0-2000	ng/mL	0	6
NSE	Randox	Cerebral Array II EV3637	Serum	0-200	ng/mL	0	1
TNFR-1	Randox	Cerebral Array II EV3637	Serum	0-50	ng/mL	0	0
NT-proBNP	Roche Diagnostics	09315284190	Serum	5-3500	ng/L	0	0
Copeptin	Brahms ThermoFisher	857.050	Serum	0,7 - 500	pmol/L	0	0
MR-proANP	Brahms ThermoFisher	819.050	Serum	2,1 - 1000	pmol/L	0	0
Procalcitonin	Roche Diagnostics	08828679190	Serum	0,02 - 100	µg/L	44	0
IL-8	Siemens Healthineers	LK8P1	Serum	2 - 7500	pg/mL	92	0
LBP	Siemens Healthineers	LKLB1	Serum	1,2 - 200	µg/mL	0	0
IL-10	Siemens Healthineers	LKXP1	Serum	1 - 1000	pg/mL	93	0
MBL	Bioporto	KIT 029	Serum	50-4000	ng/mL	17	20

MMP-1: matrix metalloproteinase-1; MMP-2: matrix metalloproteinase-2; MMP-3: matrix metalloproteinase-3; MMP-7: matrix metalloproteinase-7; MMP-9: matrix metalloproteinase-9; MMP-10: matrix metalloproteinase-10; MMP-12: matrix metalloproteinase-12; MMP-13: matrix metalloproteinase-13; TIMP-1: TIMP metalloproteinase inhibitor 1; TIMP-2: TIMP metalloproteinase inhibitor 2; BDNF: brain-derived neurotrophic factor; CRP: C-reactive protein; FABP: fatty-acid-binding proteins; GFAP: glial fibrillary acidic protein; IL-6: interleukin-6; NGAL: neutrophil gelatinase-associated lipocalin; NSE: neuron-specific enolase; TNFR-1: tumor necrosis factor receptor 1; NT-proBNP: N-terminal pro-brain natriuretic peptide; MR-proANP: mid-regional pro-atrial natriuretic peptide; IL-8: Interleukin-8; LBP: lipopolysaccharide binding protein; IL-10: interleukin-10; MBL: mannose-binding lectin

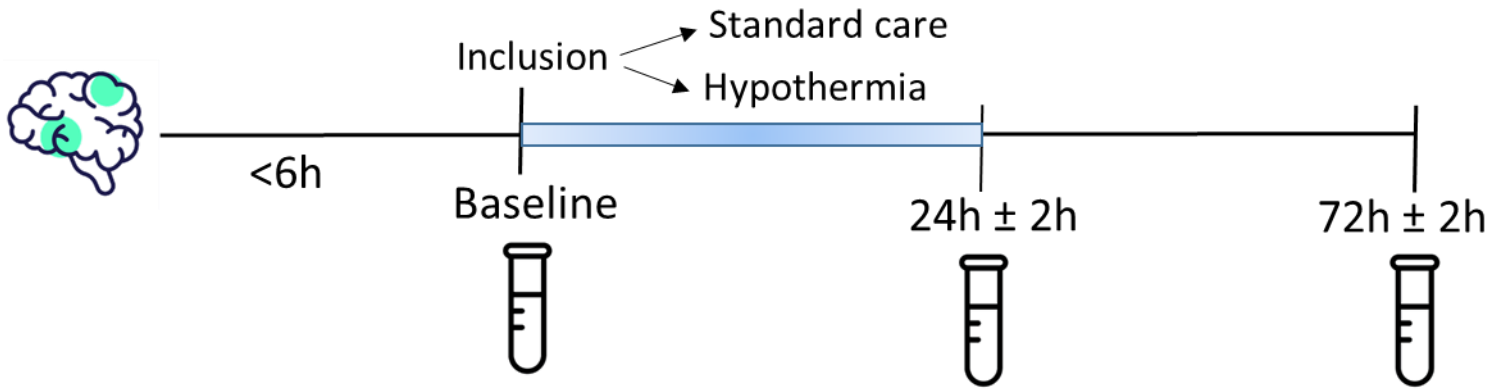
*149 samples were available to be tested.

Supplemental Table 2: Baseline characteristics of the study population.

	Total (n=54)	Controls (n=27)	Hypothermia (n=27)	P-value
Age	75.5 (70-80)	77 (71.5-80)	72 (68-79)	0.209
Sex (%female)	22 (40.7%)	13 (48.1%)	9 (33.3%)	0.268
Hypertension	31 (68.9%)	16 (76.2%)	15 (62.5%)	0.322
Diabetes	16 (35.6%)	7 (33.3%)	9 (37.5%)	0.771
Dyslipidemia	9 (20.0%)	6 (28.6%)	3 (12.5%)	0.179
Previous stroke	13 (28.9%)	7 (33.3%)	6 (25.0%)	0.538
Atrial fibrillation	4 (8.9%)	2 (9.5%)	2 (8.3%)	0.889
Pneumonia	6 (11.1%)	2 (7.4%)	4 (14.8%)	0.386
Infection	11 (20.4%)	3 (11.1%)	8 (29.6%)	0.091
NIHSS baseline	10 (7.75-16.25)	9 (8-16)	10 (7-17)	0.965
Thrombolysis	45 (83.3%)	23 (85.2%)	22 (81.5%)	0.715
mRS at 90 days>2	30 (57.7%)	17 (65.4%)	13 (50.0%)	0.262

NIHSS: National Institute of Health Stroke Scale; mRS:modified rankin scale

Supplemental Figure 1: Schematic time line of the study.



Patients were included within 6h after onset of symptoms and allocated to standard care or hypothermia. Cooling was maintained for 12-24 h. Blood samples were obtained at three time-points; baseline, 24 h ± 2 h, and 72 h ± 4 h since the initiation of the hypothermia treatment.

Supplemental Figure 2: Correlations between MMP-3, FABP, and IL-8 concentrations at 24h and 72h and the minimum temperature reached in patients treated with hypothermia.