

Supplemental Material

Table S1. Comparison of event types between patients receiving MRI and CT

	Ischemic stroke	TIA	Mimic	P <0.001
CT	91%	8%	1.4%	
MRI	84%	14%	1.9%	

Table S2. Baseline characteristics of patients according to final diagnosis

	Ischemic stroke	TIA	Stroke/TIA mimic	p-value
Clinical Characteristics	N=1,693	N=377	N=42	
Age, years	71.4 (59.6-80.5)	70.3 (59.1-79.4)	48.65 (37.4-57.5)	<0.001
Female Sex	689 (40.7%)	187 (49.6%)	27 (64.3%)	<0.001
NIHSS admission	3 (1-8)	0 (0-1)	0 (0-2)	<0.001
Living at home before event	1,611 (95.5%)	359 (95.2%)	40 (95.2%)	0.97
1st systolic blood pressure, mmHg	160 (139-180)	157.5 (140-177)	138 (126-160)	<0.001
Hypertension	1,138 (67.3%)	233 (61.8%)	8 (19.0%)	<0.001
Diabetes	299 (17.7%)	52 (13.8%)	2 (4.8%)	0.021
Hyperlipidemia	980 (58.0%)	152 (40.3%)	16 (38.1%)	<0.001
Smoking	407 (24.5%)	76 (20.2%)	13 (31.0%)	0.11
Atrial Fibrillation	363 (21.5%)	42 (11.1%)	3 (7.1%)	<0.001
Coronary heart disease	259 (15.3%)	58 (15.4%)	5 (11.9%)	0.83
Peripheral artery disease	67 (4.0%)	22 (5.8%)	1 (2.4%)	0.22
Active cancer	68 (4.0%)	10 (2.7%)	0 (0.0%)	0.19
1st glucose, mmol/L	6.4 (5.6-7.7)	8.3 (8.3-8.3)	NA	0.27
1st creatinine, umol/L	80 (67-94)	78 (66-92)	69 (57-83)	<0.001

NIHSS: National Institute of Health Stroke Severity Scale.

Table S3. Full model for prediction of stroke mimic

Variable	Odds Ratio	Standard error	Z	P> z	Lower 95% confidence interval	Upper 95% confidence interval
Age, years	.9546463	.0125021	-3.54	0.000	.9304545	.979467
Female sex	3.205605	1.146679	3.26	0.001	1.590106	6.462401
1 st systolic blood pressure after admission, mmHg	.9983998	.0068523	-0.23	0.816	.9850595	1.011921
Medical history of arterial hypertension	.2478853	.1222059	-2.83	0.005	.0943222	.6514599
Medical history of prior transient ischemic attack	.9408665	.7083861	-0.08	0.935	.2151054	4.115329
Medical history of diabetes mellitus	.5585549	.4500273	-0.72	0.470	.1151472	2.709433
Medical history of atrial fibrillation	.9448546	.63339	-0.08	0.933	.2539545	3.515394
1st creatinine level after admission, umol/L	1.010199	.0031162	3.29	0.001	1.00411	1.016325
Age related white-matter hyperintensities severity score, ordinal ranging from 0-3	1.328679	.3698693	1.02	0.307	.76996	2.292832
Chronic covert brain infarction	.2619454	.1661211	-2.11	0.035	.0755777	.9078784

Full model showing association of CBI (SBIany) with lower probability of a final diagnosis of stroke mimic with adjustment for covariates identified using lasso regression.

Number of observations 2061, Likelihood ratio (χ^2): 80.59, $P < 0.001$, Pseudo- R^2 0.2042, Log likelihood = -156.99672

Fig S1. Flow Chart of Patient In/Exclusion

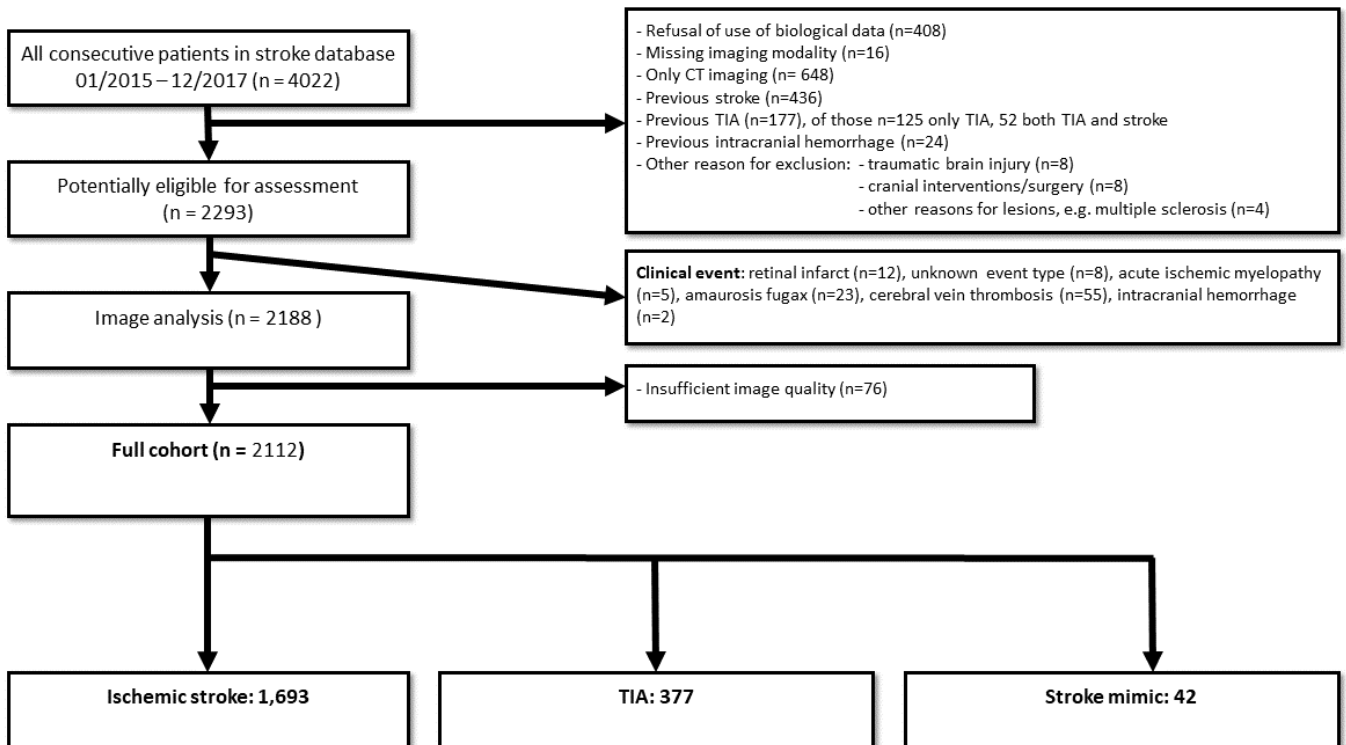
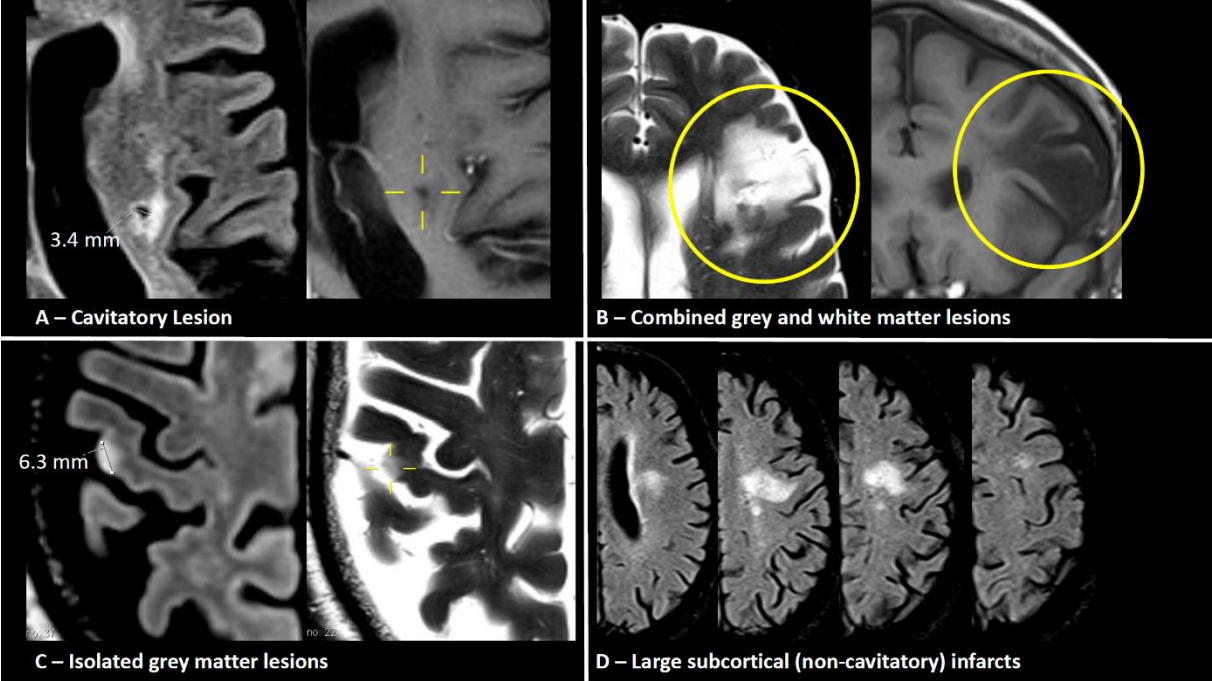
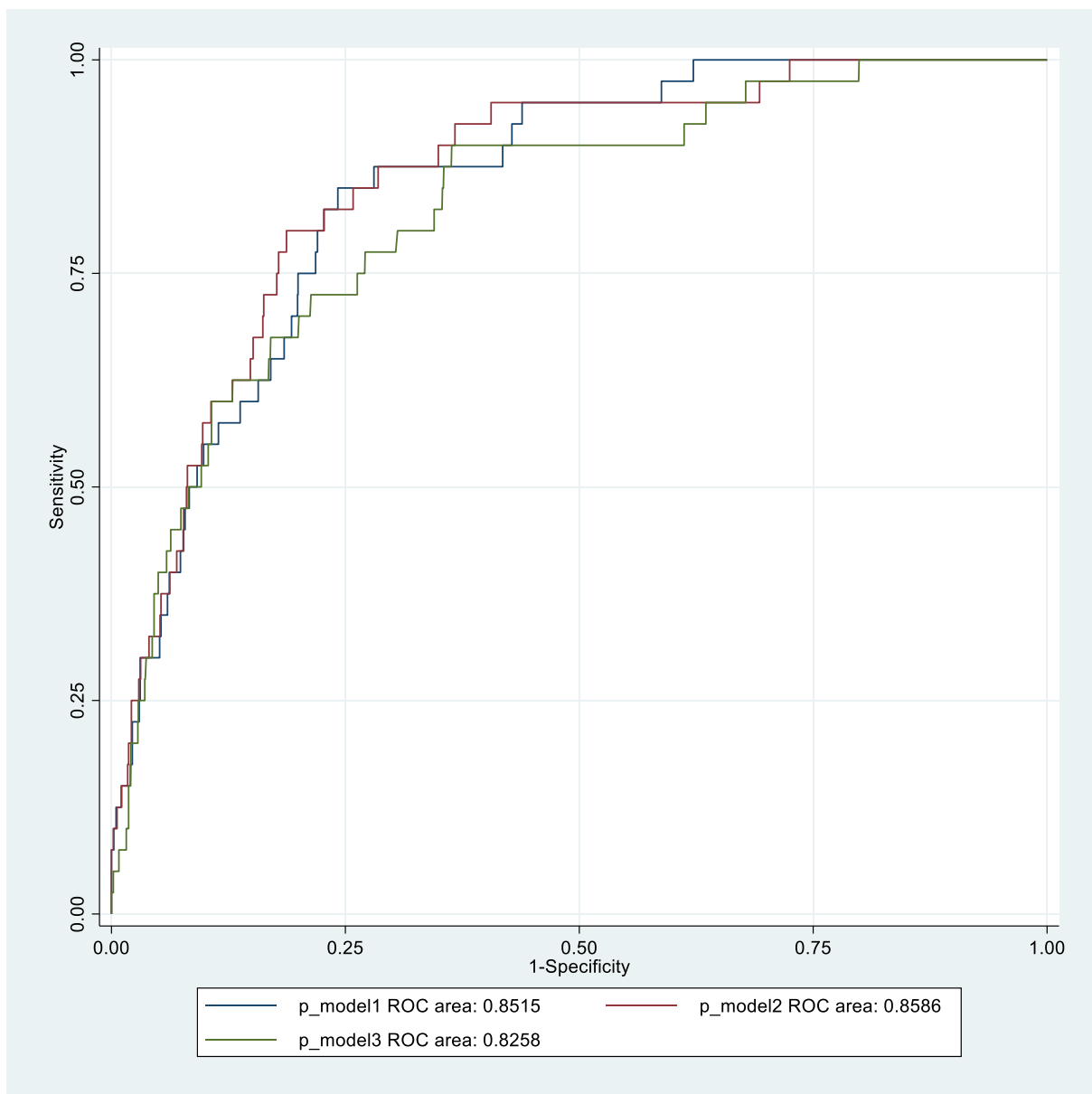


Figure S2. Examples of phenotypes of covert brain infarction



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Figure S3. Predictive Performance to identify stroke mimics



p_model1 (blue) only clinical variables (Age, sex, systolic blood pressure, history of hypertension, TIA, diabetes, atrial fibrillation and creatinine), model 2 (red) clinical AND neuroimaging (presence of any CBI and WMH severity), model 3 (green) only age, sex and neuroimaging (presence of any CBI and WMH severity)