

**Combining Imaging and Genetics to Predict Recurrence of
Anticoagulation-Associated Intracerebral Hemorrhage**

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SUPPLEMENTAL MATERIAL

Supplementary Table I. Univariable Analyses of ICH Recurrence

Variable	Hazard Ratio (95% CI)	p
Age (per 10 years)	1.05 (1.01 - 1.10)	0.030
Sex (Male)	0.78 (0.53 - 1.16)	0.23
Race / Ethnicity		
- White	Ref.	Ref.
- Black	1.29 (0.99 - 1.68)	0.061
- Hispanic	1.37 (0.97 - 1.94)	0.077
- Other	0.78 (0.54 - 1.13)	0.20
Education (> 12 years)	0.88 (0.76 - 1.01)	0.079
Hypertension	0.81 (0.60 - 1.09)	0.17
Diabetes Mellitus	1.39 (0.67 - 2.89)	0.39
Coronary Artery Disease	0.93 (0.82 - 1.06)	0.28
APOE ε2 or ε4 (≥ 1 copy)	2.06 (1.19 - 3.56)	0.010
ICH Location (Lobar)	1.78 (1.12 - 2.83)	0.015
ICH Volume (per 10 cc)	1.18 (0.96 - 1.45)	0.13
IVH Presence	1.25 (0.87 - 1.79)	0.23
Lobar CMBs (per each additional CMB)	1.93 (1.14 - 3.28)	0.016
Non-lobar CMBs (per each additional CMB)	1.25 (0.89 - 1.75)	0.21
Increasing CSS Severity (None - Focal - Disseminated)	1.73 (1.09 - 2.74)	0.021

Results derived from combined analysis of MGH-ICH and ERICH data (n = 230)

Abbreviations: 95% CI = 95% Confidence Interval, CMB = Cerebral Microbleeds, HR = Hazard Ratio, ICH = Intracerebral Hemorrhage, IVH = Intraventricular Hemorrhage, OAT = Oral Anticoagulation

Supplementary Table II. Multivariable Analysis of ICH Recurrence Risk after Lobar Anticoagulation-related ICH

<i>Variables</i>	HR	95% CI	P
Age (per 10 years)	1.05	0.99 - 1.11	0.099
Education (> 12 years)	0.85	0.69 - 1.05	0.14
Lobar CMBs (per each additional CMB)	1.74	1.09 - 2.77	0.022
Increasing CSS Severity (None - Focal - Disseminated)	1.64	1.14 - 2.36	0.009
APOE ε2 or ε4 (≥ 1 copy)	2.15	1.20 - 3.85	0.011

Results derived from combined analysis of MGH-ICH and ERICH data (n = 230)

Abbreviations: 95% CI = 95% Confidence Interval, APOE = Apolipoprotein E, CSS = Cortical Superficial Siderosis, CMB = Cerebral Microbleeds, HR = Hazard Ratio, ICH = Intracerebral Hemorrhage

Supplementary Table III. Multivariable Analysis of ICH Recurrence Risk after Non-lobar Anticoagulation-related ICH

<i>Variables</i>	HR	95% CI	P
Age (per 10 years)	1.09	0.90 - 1.32	0.40
Education (> 12 years)	0.81	0.54 - 1.21	0.33
Lobar CMBs (per each additional CMB)	1.52	1.04 - 2.22	0.035
Increasing CSS Severity (None - Focal - Disseminated)	1.37	1.01 - 1.86	0.046
APOE ϵ 2 or ϵ 4 (≥ 1 copy)	1.69	1.06 - 2.69	0.031

Results derived from combined analysis of MGH-ICH and ERICH data (n = 230)

Abbreviations: 95% CI = 95% Confidence Interval, APOE = Apolipoprotein E, CSS = Cortical Superficial Siderosis, CMB = Cerebral Microbleeds, HR = Hazard Ratio, ICH = Intracerebral Hemorrhage