Supplementary Table 3. Baseline characteristics of participants without moyamoya disease according to the availability of intracranial atherosclerotic burden data

Variable	ICAS burden available (n=647)	ICAS burden unavailable (n=276)	*P*
Age (yr)	67.7±13.0	66.6±13.9	0.362
Female sex	236 (36.48)	108 (39.13)	0.445
RNF213 variant status			
Variant+	24 (3.71)	13 (4.71)	0.478
TOAST classification			<0.001
Large artery atherosclerosis	167 (25.81)	81 (29.35)	
Cardioembolic	128 (19.78)	70 (25.36)	
Small artery occlusion	170 (26.28)	39 (14.13)	
Other	66 (10.20)	31 (11.23)	
Undetermined	116 (17.93)	55 (19.93)	
ICA area (mm^2)	22.2±4.2	21.1±6.2	<0.001
GTIb	-0.2±0.7	0.2±0.9	0.065

Values are presented as mean±standard deviation for continuous variables and n (%) for categorical variables. Continuous variables were compared using the Wilcoxon rank-sum test. Categorical variables were compared using the chi-square test or Fisher's exact test, as appropriate. The *P*-value for TOAST classification represents the overall comparison across all five categories. The *P*-value for LAA versus non-LAA was 0.267.
ICAS, intracranial atherosclerosis; TOAST, Trial of ORG 10172 in Acute Stroke Treatment; ICA, internal carotid artery; GTIb, basal global tortuosity index; LAA, large artery atherosclerosis.

Supplementary Table 4. Association between *RNF213* variant status and laterality-specific ICA area in patients without moyamoya disease

	Ipsilateral ICA area (n=762)	Contralateral ICA area (n=762)
Intercept	2.934*** (2.836, 3.032)	3.010*** (2.915, 3.104)
RNF213 variant+	-0.189*** (-0.279, -0.099)	-0.196*** (-0.283, -0.110)
Age	0.002* (0.000, 0.003)	0.001 (-0.001, 0.002)
Sex	0.063*** (0.026, 0.099)	0.047** (0.012, 0.082)
LAA	-0.144*** (-0.183, -0.105)	-0.073*** (-0.111, -0.036)

Linear regression models were fitted to evaluate the independent association between *RNF213* variant status and the ICA area on the ipsilateral and contralateral sides of the index stroke. The ICA area was log-transformed prior to analysis. Models were adjusted for age, sex, and the presence of large artery atherosclerosis. Patients with bilateral lesions were excluded. Patients were also excluded if the ICA area could not be computed on either side (i.e., if only one side was available). Coefficients are presented as β with 95% confidence intervals.
ICA, internal carotid artery; LAA, large artery atherosclerosis.
*P<0.05; **P<0.01; ***P<0.001.

Supplementary Table 5. Discriminative performance of models for identifying *RNF213* variant carriers in the overall study population of the SMC cohort and the KUMC cohort

Model	AUC (95% CI)	ΔAUC	*P* (DeLong)
SMC cohort			
Clinical model	0.697 (0.624, 0.769)		
Clinical+ICA area	0.831 (0.770, 0.893)	+0.134	<0.001***
Clinical+ICA area+GTIb	0.855 (0.802, 0.908)	+0.024	0.051
KUMC cohort			
Clinical model	0.557 (0.398, 0.716)		
Clinical+ICA area	0.735 (0.627, 0.842)	+0.178	0.039*
Clinical+ICA area+GTIb	0.739 (0.636, 0.841)	+0.004	0.600

The clinical model included age, sex, and stroke etiology (large artery atherosclerosis vs. non-large artery atherosclerosis). ΔAUC values represent the incremental change in the area under the curve compared with the preceding model. *P*-values were calculated using DeLong's test for correlated receiver operating characteristic curves.
SMC, Samsung Medical Center; KUMC, Korea University Medical Center; AUC, area under the curve; CI, confidence interval; ICA, internal carotid artery; GTIb, basal global tortuosity index.
*P<0.05; **P<0.01; ***P<0.001.

https://doi.org/10.5853/jos.2025.06282