

Supplementary Materials for Schizophrenia and types of stroke: a Mendelian randomization study

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Supplementary Table 1. Description of summary data used in the analyses

Traits	First authors /Consortia	Sample size	Population	Sex	Adjustments
Schizophrenia	Trubetskoy/PGC [13]	Case: 53, 386 Control: 77, 258	European	Mixed	Principal components
Ischemic stroke	Malik/MEGASTROKE [14]	Case: 34,217 Control: 406,111	European	Mixed	Principal components, Sex, age
Large artery stroke	Malik/MEGASTROKE [14]	Case: 4,373 Control: 146,392	European	Mixed	Principal components, Sex, age
Small vessel stroke	Malik/MEGASTROKE [14]	Case: 5,386 Control: 192,662	European	Mixed	Principal components, Sex, age
Cardioembolic stroke	Malik/MEGASTROKE [14]	Case: 7,193 Control: 204,570	European	Mixed	Principal components, Sex, age
Intracerebral hemorrhage	FinnGen [15]	Case: 1,687 Control: 201,146	European	Mixed	Principal components
Smoking initiation	Liu/GSCAN [24]	Case: 311,629 Control: 321,173	European	Mixed	Principal components

PGC, Psychiatric Genomics Consortium; GSCAN, GWAS and Sequencing Consortium of Alcohol and Nicotine use

Supplementary Table 2. Heterogeneity test of inverse variance weighted fixed effect estimates

	Q	P-value	I ² index
Ischemic stroke	322.9	<0.000	23.8
Large artery stroke	323.9	<0.000	25.0
Small vessel stroke	254.9	0.319	3.9
Cardioembolic stroke	254.5	0.267	4.9
Intracerebral hemorrhage	267.0	0.139	9.0

Supplementary Table 3. Multivariable Mendelian randomization analysis of the associations between schizophrenia and stroke subtypes including smoking initiation

Outcomes	OR	95% CI	P-value	Q (P-value)
Ischemic stroke (365 SNPs)	1.009	0.984–1.035	0.485	459.1 (<0.000)
Large artery stroke (363 SNPs)	1.002	0.951–1.054	0.954	439.7 (0.002)
Small vessel stroke (364 SNPs)	1.043	0.989–1.100	0.125	385.0 (0.185)
Cardioembolic stroke (361 SNPs)	1.063	1.016–1.112	0.009	396.0 (0.081)
Intracerebral hemorrhage (361 SNPs)	1.070	0.984–1.164	0.114	446.7 (0.001)

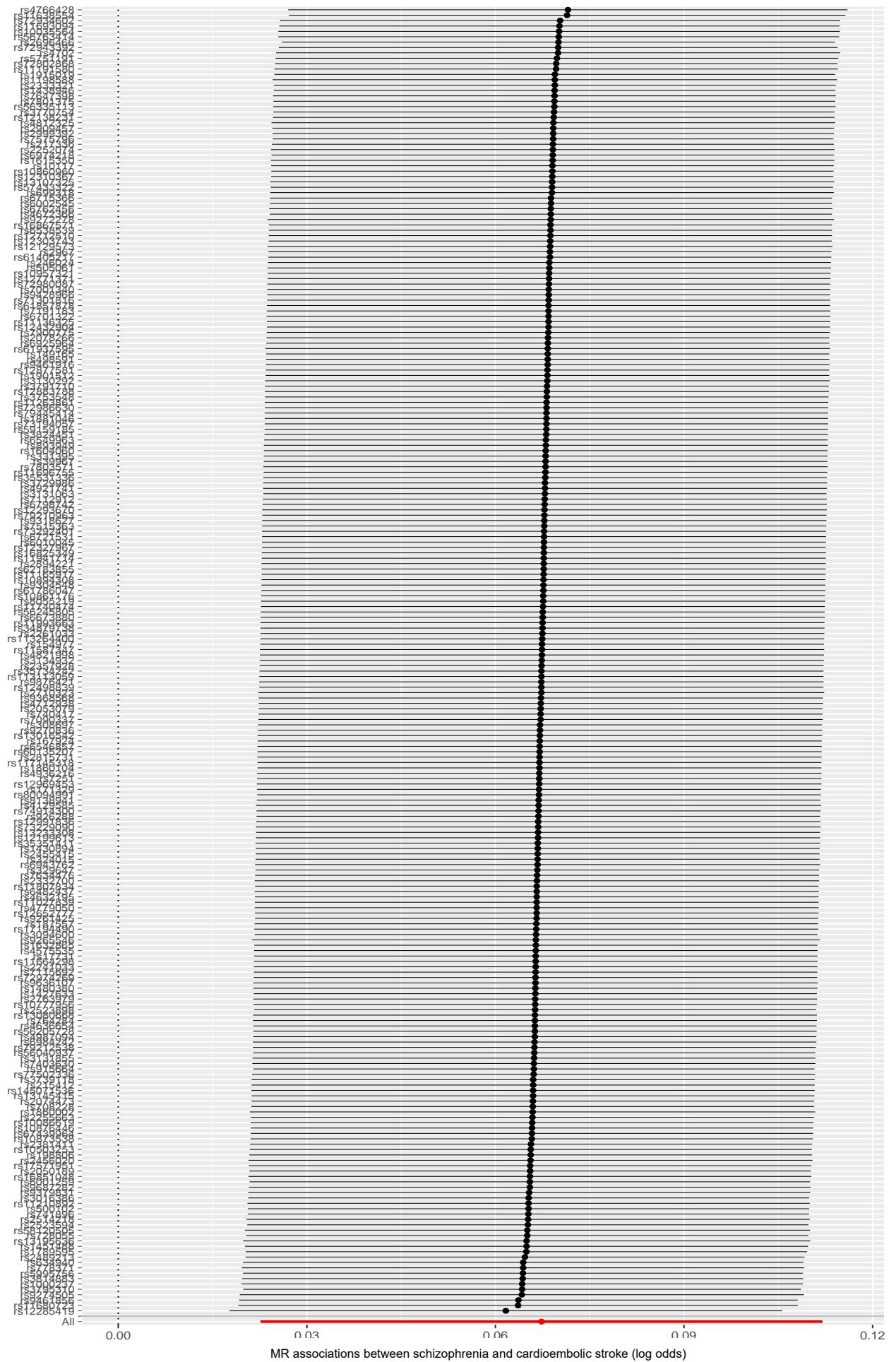
OR, odds ratio; CI, confidence interval; SNPs, single nucleotide polymorphisms; MR, Mendelian randomization

Supplementary Table 4. Results of leave one out analysis for the association between schizophrenia and intracerebral hemorrhage restricted to influential SNPs

SNP	OR (95% CI)	P-value
rs12293670	1.08 (1.00–1.17)	0.053
rs2252074	1.08 (1.00–1.17)	0.052
rs2455415	1.08 (1.00–1.17)	0.051
rs2456020	1.08 (1.00–1.17)	0.052
rs72802868	1.08 (1.00–1.17)	0.050

SNP, single nucleotide polymorphism; OR, odds ratio; CI, confidence interval

Supplementary Figure 1. Leave one out analysis for the association between schizophrenia and cardioembolic stroke using the inverse variance weighing method



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