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eTable1. Instrumental effects of migraine on the other cerebrovascular outcomes by inverse variance weighted Mendelian randomization

	effect		heterogeneity analysis		
Outcome*	OR [95% CI]	P value	Q, (df), p, all SNPs	Q, (df), p, retained SNPs	MR-PRESSO excluded SNPs
CeAD	1.69 [1.24 - 2.3]	0.0009	109.1 (39), 1.5E-08	65.4 (37), 0.003	rs11172113 (*LRP1*), rs9349379 (*PHACTR1*)
AS	0.95 [0.91 - 1.01]	0.0883	80.3 (39), 0.0001	-	-
IS	0.95 [0.89 - 1.01]	0.0783	66.2 (39), 0.0004	-	-

CE	0.97 [0.88 - 1.08]	0.6333	45.6 (39), 0.21	-	-
LAS	0.86 [0.76 - 0.96]	0.0067	74.4 (39), 0.0004	65.2 (38), 0.004	rs7940646 (*MRVI1*)
SVS	0.95 [0.83 - 1.08]	0.4195	77.0 (39), 0.0003	53.7 (37), 0.04	rs138556413 (*CARF*), rs7940646 (*MRVI1*)
*Abbreviations as in Table 1. ^Odds ratios (OR) are scaled to represent effect per doubling of migraine prevalence.					

eTable2. Sensitivity analysis of instrumental effects of migraine on the other cerebrovascular outcomes by several Mendelian randomization methods

Outcome*	MR Method	OR [95% CI]^	P value
CeAD	Weighted median	1.25 [0.9 - 1.73]	0.1872
	Robust adjusted profile score (RAPS)	1.39 [1.03 - 1.89]	0.0331
	MR Egger	1.84 [0.74 - 4.57]	0.1999
	MR Egger (bootstrap)	3.19 [2.04 - 4.98]	0
	MRPRESSO	1.33 [1.02 - 1.73]	0.04
IS	Weighted median	0.92 [0.86 - 0.98]	0.016
	Robust adjusted profile score (RAPS)	0.96 [0.9 - 1.02]	0.2204
	MR Egger	1.02 [0.86 - 1.21]	0.8178
	MR Egger (bootstrap)	0.9 [0.81 - 1]	0.029
	MRPRESSO	NA%	NA%
CE	Weighted median	0.99 [0.87 - 1.13]	0.8966
	Robust adjusted profile score (RAPS)	0.97 [0.88 - 1.08]	0.6311
	MR Egger	0.86 [0.64 - 1.17]	0.3472
	MR Egger (bootstrap)	1 [0.82 - 1.22]	0.496
	MRPRESSO	NA%	NA%
LAS	Weighted median	0.82 [0.7 - 0.97]	0.024
	Robust adjusted profile score (RAPS)	0.87 [0.76 - 0.99]	0.0293
	MR Egger	1.01 [0.73 - 1.39]	0.965
	MR Egger (bootstrap)	0.85 [0.66 - 1.08]	0.091
	MRPRESSO	NA%	NA%
AS	Weighted median	0.92 [0.87 - 0.98]	0.0093
	Robust adjusted profile score (RAPS)	0.96 [0.91 - 1.02]	0.1746
	MR Egger	1.04 [0.89 - 1.2]	0.6482
	MR Egger (bootstrap)	0.92 [0.84 - 1.01]	0.043
	MRPRESSO	0.95 [0.90 - 1.00]	0.039
SVS	Weighted median	0.96 [0.82 - 1.11]	0.5604
	Robust adjusted profile score (RAPS)	0.94 [0.82 - 1.07]	0.354
	MR Egger	1.15 [0.78 - 1.71]	0.4741
	MR Egger (bootstrap)	0.95 [0.75 - 1.21]	0.346

MRPRESSO	0.90 [0.80 - 1.02]	0.1

*Abbreviations as in Table 1. ^Odds ratios (OR) are scaled to represent effect per doubling of migraine prevalence. % No SNPs excluded by MR-PRESSO pleiotropy test.

eTable3. MR Egger intercept test for horizontal pleiotropy.

Outcome*	Egger intercept^ (SE), p
CeAD	-0.008 (0.04),0.85
IS	-0.007 (0.01),0.37
CE	0.012 (0.01),0.41
LAS	-0.016 (0.01),0.30
AS	-0.008 (0.01),0.26
SVS	-0.019 (0.02),0.29

*Abbreviations as in Table 1. ^Intercept on log odds scale.