

On-line Table 1: Preliminary analysis^a

Region	Model 1			Model 2			Change		
	R ²	P	P ^b	R ²	P	P ^b	ΔR ²	P	P ^b
Left thalamus	0.163	.000	.000	0.484	.000	.000	0.321	.000	.000
Right thalamus	0.198	.000	.000	0.503	.000	.00	0.305	.000	.000
Left caudate	0.126	.000	.000	0.343	.000	.000	0.217	.000	.000
Right caudate	0.088	.000	.000	0.316	.000	.000	0.228	.000	.000
Left putamen	0.066	.002	.010	0.250	.000	.000	0.184	.000	.000
Right putamen	0.105	.000	.000	0.349	.000	.000	0.244	.000	.000
Left globus pallidus	−0.010	.727	.727	0.148	.000	.000	0.158	.000	.000
Right globus pallidus	0.040	.019	.057	0.108	.000	.000	0.068	.000	.000
Left hippocampus	0.090	.000	.000	0.246	.000	.000	0.156	.000	.000
Right hippocampus	0.093	.000	.000	0.228	.000	.000	0.135	.000	.000
Left amygdala	0.053	.007	.028	0.117	.000	.000	0.064	.000	.000
Right amygdala	0.004	.300	.600	−0.001	.436	.436	−0.005	.720	.720
Left accumbens	0.149	.000	.000	0.296	.000	.000	0.147	.000	.000
Right accumbens	0.207	.000	.000	0.296	.000	.000	0.089	.000	.000

^a Hierarchic regression analysis predicting cross-sectional regional SGM volumes at 5-year follow-up. Predictors included in each model are as follows: model 1, age, sex, disease duration; model 2, age, sex, disease duration, disruption of connected WM tracts.

^b Holm-Bonferroni–corrected *P* values. All *P* values are significant.

On-line Table 2: Cross-sectional analysis controlling for T2LV and WBV^a

Region	Model 1			Model 2			Change		
	R ²	P	P ^b	R ²	P	P ^b	ΔR ²	P	P ^b
Left thalamus	0.726	.000	.000	0.728	.000	.000	0.002	.120	1.00
Right thalamus	0.740	.000	.000	0.744	.000	.000	0.004	.068	.748
Left caudate	0.506	.000	.000	0.514	.000	.000	0.008	.049	.588
Right caudate	0.468	.000	.000	0.473	.000	.000	0.005	.124	1.00
Left putamen	0.500	.000	.000	0.501	.000	.000	0.001	.224	1.00
Right putamen	0.514	.000	.000	0.512	.000	.000	−0.002	.486	1.00
Left globus pallidus	0.243	.000	.000	0.247	.000	.000	0.003	.159	1.00
Right globus pallidus	0.231	.000	.000	0.230	.000	.000	−0.001	.372	1.00
Left hippocampus	0.395	.000	.000	0.394	.000	.000	−0.001	.432	1.00
Right hippocampus	0.376	.000	.000	0.373	.000	.000	−0.003	.738	1.00
Left amygdala	0.167	.000	.000	0.170	.000	.000	0.003	.200	1.00
Right amygdala	0.035	.052	.052	0.060	.011	.011	0.025	.019	.247
Left accumbens	0.376	.000	.000	0.394	.000	.000	0.018	.014	.196
Right accumbens	0.381	.000	.000	0.381	.000	.000	0.000	.239	1.00

^a Hierarchic regression analyses predicting regional SGM atrophy. Predictors included in each model are as follows: model 1, age, sex, disease duration, WBV, T2LV; model 2, age, sex, disease duration, WBV, T2LV, disruption of connected WM tracts.

^b Holm-Bonferroni–corrected *P* values. All *P* values are significant.

On-line Table 3: Separate analysis of T2-FLAIR and TIWI black hole lesions^a

Region	Model 1			Model 2			Change		
	R ²	P	P ^b	R ²	P	P ^b	ΔR ²	P	P ^b
Left thalamus	0.156	.000	.000	0.155	.000	.000	−0.001	.181	.984
Right thalamus	0.141	.000	.000	0.141	.000	.000	0.000	.137	.984
Left caudate	0.067	.007	.028	0.072	.005	.015	0.005	.135	.984
Right caudate	0.084	.002	.014	0.114	.001	.008	0.030	.123	.984
Left putamen	0.146	.000	.000	0.162	.000	.000	0.016	.034	.340
Right putamen	0.055	.016	.036	0.131	.000	.000	0.076	.000	.000
Left globus pallidus	0.140	.000	.000	0.162	.000	.000	0.022	.017	.187
Right globus pallidus	0.152	.000	.000	0.160	.000	.000	0.008	.101	.909
Left hippocampus	0.102	.000	.000	0.101	.001	.008	−0.001	.729	1.00
Right hippocampus	0.098	.001	.008	0.093	.001	.008	−0.005	.590	1.00
Left amygdala	0.059	.012	.036	0.062	.012	.024	0.003	.207	.984
Right amygdala	−0.013	.711	.711	0.019	.106	.106	0.032	.005	.065
Left accumbens	0.070	.005	.025	0.107	.001	.008	0.037	.008	.090
Right accumbens	0.084	.002	.014	0.082	.002	.008	−0.002	.240	.984

^a Hierarchic regression analyses predicting annualized regional SGM atrophy with T2-FLAIR and TIWI black hole lesions combined. Predictor variables included in each model are as follows: model 1, age, sex, disease duration, ΔWBV, ΔT2LV, baseline tract disruption; model 2, age, sex, disease duration, ΔWBV, ΔT2LV, baseline tract disruption, longitudinal change in the disruption of connected WM tracts.

^b Holm-Bonferroni–corrected *P* values. All *P* values are significant.