

**SUPPLEMENTAL MATERIAL**

**Supplemental Table I.** Comparison of baseline characteristics between included and excluded participants

**Supplemental Table II.** Magnetic resonance imaging protocols used in the Shunyi study

**Supplemental Table III.** Associations between the 3 groups of inflammatory biomarkers and cerebral microbleeds and perivascular space according to imaging results

**Supplemental Table I.** Comparison of baseline characteristics between included and excluded participants

Characteristics	Included participants	Excluded participants	<i>P</i> value
	n=960	n=626	
Age, y	56.02±9.18	57.71±11.18	< 0.001
Female	616(64.17%)	336(53.67%)	< 0.001
Body mass index, kg/m <sup>2</sup>	26.55±3.80	26.09±3.84	0.022
SBP, mmHg	133.63±19.27	133.62±20.24	0.990
DBP, mmHg	78.72±10.82	78.55±11.58	0.769
Current smoker	210(22.41%)	171(28.45%)	0.008
Current drinker	21(2.24%)	36(6.00%)	0.001
Total cholesterol, mmol/L	5±0.93	4.73±0.96	<0.001
HDL-c, mmol/L	1.29±0.3	1.27±0.32	0.205
LDL-c, mmol/L	2.98±0.77	2.8±0.75	<0.001
Triglycerides, mmol/L	1.35(0.89, 2.00)	1.16(0.84, 1.71)	0.003
Hypertension	512(53.39%)	321(52.45%)	0.716
Diabetes mellitus	157(16.35%)	118(19.28%)	0.138
Hyperlipemia	483(50.31%)	248(40.62%)	< 0.001

SBP indicates systolic blood pressure; DBP, diastolic blood pressure; HDL-c, high density lipoprotein cholesterol; LDL-c, low density lipoprotein cholesterol.

Missing data of included participants: body mass index, 24; SBP, 4; DBP, 4; current smoker, 23; hypertension, 1; missing data of excluded participants: body mass index,

47; SBP, 23; DBP, 23; current smoker, 25; hypertension,14; diabetes mellitus, 14;  
hyperlipemia, 14.

**Supplemental Table II.** Magnetic resonance imaging protocols used in the Shunyi

study

Sequences	Parameters
Three-dimensional T1-weighted images	TR = 2,530 ms; TE = 3.43 ms; inversion time = 1,100 ms; FOV = 256 mm × 256 mm; voxel size = 1 mm × 1 mm × 1.3 mm; flip angle = 8°; 144 sagittal slices, in the axial plane
T2-weighted images	TR = 6,000 ms; TE = 125 ms; FOV = 230 mm × 230 mm; flip angle = 90°; slice thickness = 5 mm, gap = 1 mm; 80 axial slices, in the axial plane
FLAIR images	TR = 8,500 ms; TE = 81 ms; FOV = 230 mm × 230 mm; flip angle = 150°; slice thickness = 5 mm, gap = 1 mm; 80 axial slices, in the axial plane
SWI images	TR = 27 ms; TE = 20 ms; FOV = 208 mm × 230 mm, flip angle = 15°; slice thickness = 1.5 mm; 80 axial slices, in the axial plane

TR indicates repetition time; TE, echo time; FOV, field of view; FLAIR, fluid-attenuated inversion recovery; SWI, susceptibility-weighted imaging.

**Supplemental Table III.** Associations between the 3 groups of inflammatory biomarkers and cerebral microbleeds and perivascular space according to imaging results

	Systemic biomarkers*				Endothelial-related biomarkers†				Media-related biomarkers‡			
	Model 1		Model 2		Model 1		Model 2		Model 1		Model 2	
	R <sup>2</sup>	<i>p</i> value	R <sup>2</sup>	<i>p</i> value	R <sup>2</sup>	<i>p</i> value	R <sup>2</sup>	<i>p</i> value	R <sup>2</sup>	<i>p</i> value	R <sup>2</sup>	<i>p</i> value
CMBs												
Lobar only	0.066	0.713	0.086	0.538	0.083	0.559	0.096	0.710	0.072	0.510	0.090	0.484
Any deep	0.125	0.508	0.137	0.648	0.154	0.164	0.168	0.169	0.128	0.489	0.143	0.476
Severe PVS												
Severe PVS-BG	0.059	0.284	0.081	0.411	0.056	0.970	0.079	0.980	0.063	0.199	0.083	0.367
Severe PVS-WM	0.021	0.745	0.027	0.810	0.024	0.941	0.029	0.982	0.022	0.731	0.029	0.756

WMH indicates white matter hyperintensity; CMBs, cerebral microbleeds; PVS, perivascular space; DMVs, deep medullary veins.

\*Systemic biomarkers include hsCRP, IL-6, and TNF- $\alpha$ .

†Endothelial-related biomarkers include E-selectin, P-selectin, ICAM-1, VCAM-1, CD40L, tHcy, Lp-PLA2, and YKL-40.

‡ Media-related biomarkers include MMP-2, MMP-3, MMP-9, and OPN.

Model 1 is adjusted for age and sex; model 2 is adjusted for age, sex, current smoking, hypertension, diabetes mellitus, and hyperlipidemia.