

Supplementary Methods

We assessed demographic and clinical cerebrovascular and cardiovascular risk factors that were collected during the health check-up. Anthropometric factors, including height and weight, were measured as participants wore a light gown following overnight fasting. Body mass index was calculated as weight (kg) divided by height squared (m^2), and waist circumference was measured at the midpoint between the lowest rib margin and iliac crest in a standing position. Lifestyle and known medical conditions of each participant were investigated through structured questionnaires and interviews. Smoking status comprised non-smokers, ex-smokers, or current smokers. Regular exercise was defined as moderate or high-intensity exercise for >150 minutes per week. Information collected regarding the medical status of the patient included previously diagnosed comorbid conditions, including stroke or myocardial infarction/angina, as well as the use of related medications (i.e., antihypertensives; anti-

abetic, lipid-lowering, and antiplatelet drugs; and anticoagulants). Blood pressure (BP) was measured after 5 minutes of rest in the sitting position. Moreover, the following laboratory parameters were evaluated: fasting blood glucose, hemoglobin A1c (HbA1c), total cholesterol, triglycerides, high-density lipoprotein cholesterol, and low-density lipoprotein cholesterol. We calculated the estimated glomerular filtration rate using the Modification of Diet in Renal Disease formula. All serum samples were obtained after fasting for more than 12 hours. Participants were considered to have hypertension if they had a high systolic (≥ 140 mm Hg) or diastolic (≥ 90 mm Hg) BP or were currently being administered antihypertensive medications. Diabetes mellitus (DM) was defined as a fasting blood glucose level >126 mg/dL, HbA1c level $\geq 6.5\%$, or a self-reported prior diagnosis of DM along with the current use of insulin or oral hypoglycemic medications. Dyslipidemia was defined as a total serum cholesterol level ≥ 240 mg/dL or the current use of lipid-lowering drugs.

Supplementary Table 1. Multivariate analyses comparing coronary artery stenosis and cerebral small vessel diseases in the sensitivity analyses

Population	Coronary artery stenosis	Lacune	Cerebral microbleed	White matter hyperintensity
		aOR (95% CI)	aOR (95% CI)	β (95% CI)
Without intra/extracranial stenosis	None	1.00 (reference)	1.00 (reference)	0.00 (reference)
	Non-significant	2.09 (1.32–3.33)	1.56 (0.87–2.81)	0.00 (–0.12–0.11)
	Significant	2.59 (1.28–5.23)	1.22 (0.44–3.43)	0.21 (0.00–0.43)
	<i>P</i> for trend	0.008	0.699	0.048
Without antiplatelet or anticoagulant use	None	1.00 (reference)	1.00 (reference)	0.00 (reference)
	Non-significant	1.95 (1.18–3.24)	1.78 (0.94–3.36)	0.03 (–0.10–0.15)
	Significant	2.24 (1.04–4.82)	1.50 (0.52–4.32)	0.26 (0.04–0.48)
	<i>P</i> for trend	0.040	0.453	0.022

White matter hyperintensity is transformed into a square root scale. The results are adjusted for age, sex, body mass index, waist circumference, smoking and alcohol consumption status, exercise, estimated glomerular filtration rate, and the prevalence of hypertension, diabetes mellitus, and dyslipidemia. Coronary artery stenosis categories: none, 0%; non-significant, 1%–49%; significant, $\geq 50\%$.

aOR, adjusted odds ratio; CI, confidence interval.