

Supplementary Materials

**Title: Silent lacunar infarction and incident cognitive impairment in older adults:
a five year ambispective cohort study**

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Table S1. Comparison of baseline characteristics between participants lost to follow-up and those who completed follow-up

Variable	Complete the follow-up group (n=186)	Lost-to-follow-u p group (n=29)	t / χ^2	<i>p value</i>
Age (years)	65.60±6.73	65.72±8.84	-0.091	0.928
Men [n (%)]	85 (45.7)	15 (51.7)	0.366	0.545
High school or above[n(%)]	78 (41.9)	17 (58.6)	2.832	0.092
BMI $\geq$ 24kg/m ² [n(%)]	137 (73.7)	13 (44.8)	9.885	0.002
Smoking, n (%)	74 (39.8)	2 (6.9)	11.874	0.001
Alcohol consumption, n (%)	52 (28.0)	7 (24.1)	0.184	0.668
CMMSE score	26.47±2.99	28.38±1.08	-3.408	0.001
Hypertension, n (%)	69 (37.1)	12 (41.4)	0.196	0.658
Diabetes mellitus, n (%)	83 (44.6)	8 (27.6)	2.983	0.084
Silent lacunar infarction	90(48.4)	15(51.7)	0.112	0.738
Fasting blood glucose (mmol/L)	5.80±1.92	5.37±0.83	1.196	0.233
TC, mmol/L	4.40±0.89	4.10±0.56	1.756	0.08
TG, mmol/L	1.63±0.57	1.52±0.29	1.017	0.31
LDL-C, mmol/L	2.98±0.92	2.74±0.56	1.375	0.171
HDL-C, mmol/L	0.98±0.36	1.06±0.23	-1.119	0.264
Hcy, umol/L	19.14±6.03	18.67±3.17	3.864	<0.001
white matter lesions	2.92±1.11	2.45±1.02	2.168	0.031

Table S2. Sensitivity analysis of Cox proportional hazards regression including participants lost to follow-up

Variable	<i>B</i>	<i>SE</i>	<i>Z</i>	<i>HR</i> (95% <i>CI</i>)	<i>p value</i>
Silent lacunar infarction	1.40	0.33	4.27	4.06(2.13, 7.71)	<0.001
Age	0.04	0.02	1.57	1.04(0.99, 1.08)	0.117
Sex	-0.03	0.28	-0.11	0.97(0.56, 1.68)	0.912
BMI $\geq$ 24kg/m ² [n(%)]	0.60	0.39	1.55	1.82 (0.85, 3.89)	0.121
Smoking	0.77	0.29	2.68	2.17(1.23, 3.82)	0.007
Alcohol consumption	1.42	0.32	4.52	4.15 (2.24, 7.70)	<0.001
High school or above[n(%)]	-0.29	0.29	-0.98	0.75(0.42, 1.33)	0.326
Hypertension	0.71	0.29	2.47	2.04 (1.16, 3.60)	0.014
Diabetes mellitus	0.38	0.28	1.34	1.46(0.84, 2.55)	0.18
Hcy	0.12	0.02	4.68	1.12 (1.07, 1.18)	<0.001
white matter lesions	0.56	0.14	3.87	1.75 (1.32, 2.32)	<0.001

Table S3. Collinearity diagnostics of COX model

Variable	VIF
SLI	1.297
Age	1.129
Sex	1.100
BMI	1.111
Smoking	1.164
Drinking	1.391
Education	1.238
Hypertension	1.140
Diabetes	1.104
Hcy	1.168
White matter lesions	1.306

Table S4. Collinearity diagnostics of COX model

Variable	Chi-square	df	P
sli	2.51794	1	0.113
age	0.11648	1	0.733
sex	0.22263	1	0.637
bmi_group	1.64294	1	0.2
smoking	2.4279	1	0.119
drinking	0.60032	1	0.438
edu2	0.00535	1	0.942
hypertension	1.32521	1	0.25
diabetes	0.14887	1	0.7
hcy	2.42966	1	0.119
nbzbb	4.14875	1	0.042
GLOBAL	16.7563	11	0.115

Figure S1. Scaled Schoenfeld residual plot for white matter lesions

