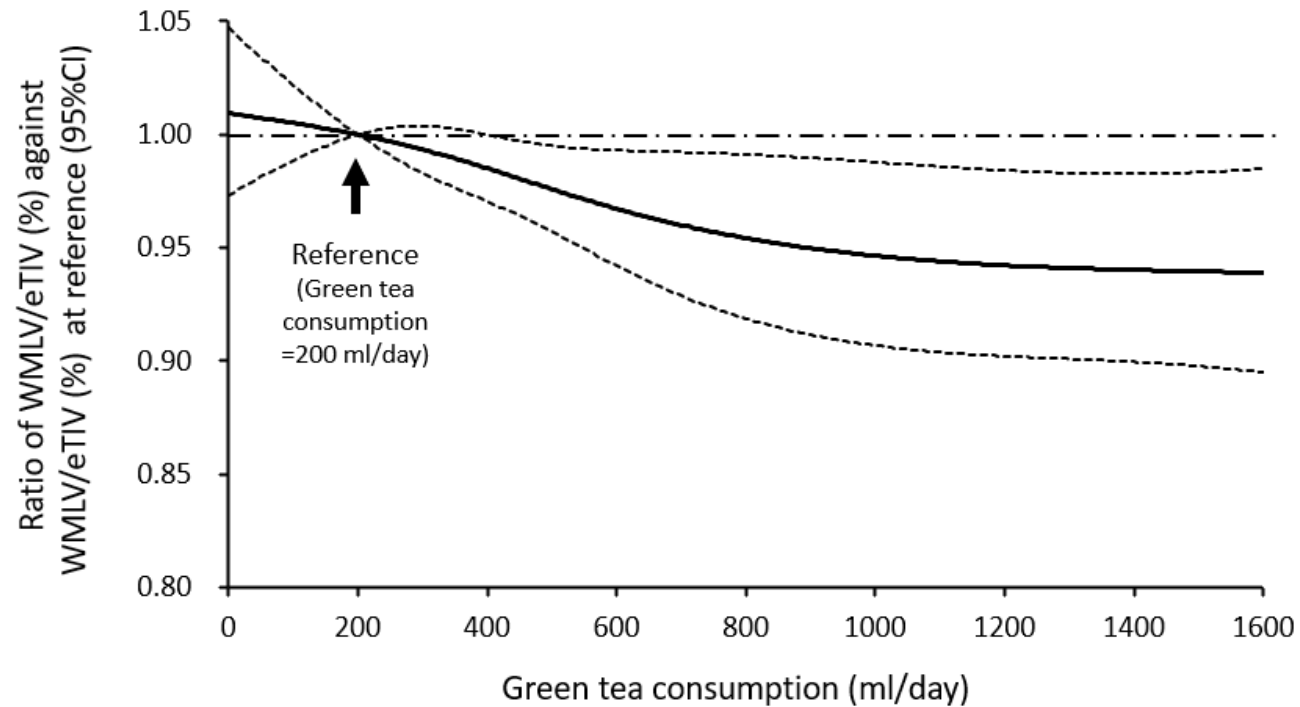


Supplementary Figure 1



Supplementary Fig. 1 . The association of daily consumption of green tea with Ratio of WMLV/eTIV against WMLV/eTIV at reference in older adults without dementia in multivariable-adjusted model.

Abbreviations: eTIV, estimated total intracranial volume; WMLV, White Matter Lesion Volume

Figure legends

Supplementary Fig. 1. The association of daily green tea consumption with the WMLV/eTIV ratio relative to the reference WMLV/eTIV ratio in older adults without dementia using a general linear model with restricted cubic splines

Solid lines represent the ratio of the WMLV/eTIV ratio relative to the reference (green tea consumption, 200 ml/day), while dashed lines represent the 95% confidence intervals of this ratio. The reference point was set at 200 ml/day for green tea intake. Knots were positioned at the 5th, 35th, 65th, and 95th percentiles (0, 300, 600, and 1,500 ml/day) of daily green tea consumption.

Abbreviations: eTIV, estimated total intracranial volume; WMLV, white matter lesion volume

Adjusted for age, sex, research site, educational levels, the presence of the apolipoprotein E ϵ 4 allele, hypertension, diabetes mellitus, history of stroke, electrocardiogram abnormalities, smoking and drinking habits, regular exercise, body mass index levels, and serum low-density lipoprotein and high-density lipoprotein cholesterol levels.

Supplementary table 1. Clinical characteristics according to the daily green tea consumption levels in cognitively unimpaired older adults

Variables	Green tea consumption (ml/day)			
	0-200	201-400	401-600	601-
N	2,200	982	1,323	2,742
Age, y, median, IQR	70 (67-74)	70 (67-74)	71 (68-76)	72 (68-77)*
Women, %	47.9	56.7	61.2	68.4*
Hypertension, %	73.1	71.7	71.8	70.9
DM, %	17.9	16.3	15.4	16
Serum LDL-chol, mg/dL, median, IQR	117 (97-138)	118 (99-140)	115 (96-137)	116 (97-136)
Serum HDL-chol, mg/dL, median, IQR	62 (51-73)	63 (51-75)	60 (50-73)	61 (51-73)
Education $\leq$ 12 y, %	24.5	23.1	27.0	25.8
Smoking habit, %	11.6	8.7	7.3	6.1*
Drinking habit, %	53.0	48.5	42.2	36.5*
<i>ApoE</i> ϵ 4, present, %	17.5	18.3	17.6	17.5
BMI, kg/m ² , median, IQR	23.3 (21.3-25.3)	23.2 (21.0-25.4)	23.0 (21.1-25.2)	23.2 (21.1-25.3)
Regular exercise, %	42.1	44.5	45	45.3*
History of stroke, %	4.8	4.7	3.7	4.4
Electrocardiogram abnormalities, %	12.7	11.8	11	12.4
GDS, score, median, IQR	2 (1-4)	2 (1-4)	2 (1-4)	2 (1-4)*
MMSE, score, median, IQR	29 (27-30)	29 (27-30)	29 (27-30)	29 (27-30)*

Abbreviations: *APOE*, Apolipoprotein E; BMI, body mass index; DM, diabetes mellitus; GDS, geriatric depression scale; HDL-chol, high-density lipoprotein cholesterol; IQR, interquartile range; LDL-chol, low-density lipoprotein cholesterol; MMSE, Mini-Mental State Examination * *p* for trend < 0.05.

Supplementary table 2. Clinical characteristics according to the daily coffee consumption levels in cognitively unimpaired older adults

Variables	Coffee consumption (ml/day)			
	0-200	201-400	401-600	601-
N	4,236	1,749	989	273
Age, y, median, IQR	73 (68-76)	71 (67-75)	71 (67-74)	71 (67-74)*
Women, %	58.5	62.1	60.8	47.6*
Hypertension, %	73.1	71.1	69.1	71.7*
DM, %	15.2	15.7	18	25.2*
Serum LDL-chol, mg/dL, median, IQR	118 (96-137)	120 (99-138)	119 (99-137)	119 (98-138)
Serum HDL-chol, mg/dL, median, IQR	63 (51-73)	64 (52-74)	64 (51-75)	62 (50-73)*
Education $\leq$ 12 y, %	26.9	23.7	22.2	21.6*
Smoking habit, %	7.4	8	10.5	16.8*
Drinking habit, %	43.8	45.7	43.4	44.6
<i>ApoE</i> ϵ 4, present, %	18	17.2	18.1	18.6
BMI, kg/m ² , median, IQR	23.4 (21.1-25.3)	23.4 (21.2-25.2)	23.3 (21.3-25.1)	24.0 (21.7-26.0)
Regular exercise, %	44.0	43.9	46.5	40.7
History of stroke, %	4.7	3.0	4.9	7.3
Electrocardiogram abnormalities, %	13.4	10.2	10.3	15.3*
GDS, score, median, IQR	3 (1-4)	3 (1-4)	3 (1-4)	3 (1-4)
MMSE, score, median, IQR	28 (27-30)	28 (27-30)	28 (27-30)	28 (27-30)

Abbreviations: *APOE*, Apolipoprotein E; BMI, body mass index; DM, diabetes mellitus; GDS, geriatric depression scale; HDL-chol, high-density lipoprotein cholesterol; IQR, interquartile range; LDL-chol, low-density lipoprotein cholesterol; MMSE, Mini-Mental State Examination * p for trend < 0.05

Supplementary table 3. Association of daily consumption of green tea and coffee with total brain volume, total hippocampal volume and white matter lesion volume in cognitively unimpaired older adults

Daily consumption (ml)	No. of Participants	Model 1			Model 2		
		TBV/eTIV (%)	HV/eTIV (%)	WMLV/eTIV, (%)	TBV/eTIV, (%)	HV/eTIV (%)	WMLV/eTIV, (%)
Green tea							
0~200	2200	59.29 (59.15-59.42)	0.5019 (0.4993-0.5046)	0.3642 (0.3485-0.3799)	58.58 (58.32-58.84)	0.4968 (0.4917-0.5019)	0.4604 (0.4310-0.4899)
201~400	982	59.37 (59.18-59.56)	0.5042 (0.5005-0.5078)	0.3623 (0.3404-0.3841)	58.59 (58.29-58.88)	0.4981 (0.4923-0.5039)	0.4672 (0.4338-0.5006)
401~600	1323	59.38 (59.21-59.54)	0.5029 (0.4997-0.5060)	0.3400 (0.3213-0.3587)	58.61 (58.33-58.89)	0.4971 (0.4916-0.5026)	0.4512 (0.4194-0.4830)
601~	2742	59.37 (59.24-59.50)	0.5063 (0.5038-0.5088)	0.3345 (0.3196-0.3493)	58.62 (58.36-58.88)	0.5004 (0.4954-0.5055)	0.4459 (0.4155-0.4753)
p for trend		0.771	0.094	0.001*	0.976	0.202	0.021*
Coffee							
0~200	4236	59.37 (59.26-59.47)	0.5034 (0.5014-0.5054)	0.3481 (0.3363-0.3599)	58.54 (58.29-58.78)	0.4972 (0.4925-0.5019)	0.4561 (0.4281-0.4842)
201~400	1749	59.13 (59.16-59.46)	0.5050 (0.521-0.5078)	0.3388 (0.3221-0.3555)	58.45 (58.19-58.72)	0.4988 (0.4936-0.5040)	0.4505 (0.4198-0.4812)
401~600	989	59.42 (59.23-59.61)	0.5052 (0.5015-0.5089)	0.3656 (0.3440-0.3873)	58.68 (58.39-58.96)	0.5005 (0.4950-0.5061)	0.4635 (0.4307-0.4963)
601~	273	59.00 (58.65-59.35)	0.5019 (0.4951-0.5086)	0.3580 (0.3180-0.3979)	58.26 (57.85-58.67)	0.4955 (0.4875-0.5035)	0.4354 (0.3887-0.4821)
p for trend		0.192	0.618	0.095	0.119	0.327	0.215

Abbreviations: eTIV, estimated total intracranial volume; HV, hippocampal volume; IQR, interquartile range; TBV, total brain volume; WMLV, white matter lesions volume.

Values were shown as a mean (95% confidence interval).

Model 1 was adjusted for age, sex, research site, and educational levels.

Model 2 was further adjusted for the presence of Apolipoprotein E ϵ 4 allele, hypertension, diabetes mellitus, history of stroke, electrocardiogram abnormalities, smoking habit, alcohol intake, regular exercise, body mass index levels, serum low-density lipoprotein and high-density lipoprotein cholesterol levels, regular exercise, and smoking and drinking habits.

* p for trend < 0.05

Supplementary table 4. Association of daily green tea consumption with white matter lesion volume examined by depression status in older adults without dementia.

Green tea consumption (ml)	Depression (-)		Depression (+)	
	No. of Participants	WMLV/eTIV, (%)	No. of Participants	WMLV/eTIV, (%)
0~200	2055	0.4707 (0.4401-0.5012)	431	0.6175 (0.5361-0.6989)
201~400	967	0.4783 (0.4438-0.5128)	145	0.6568 (0.5566-0.7570)
401~600	1311	0.4550 (0.4224-0.4876)	219	0.6341 (0.5435-0.7246)
601~	2695	0.4486 (0.4183-0.4790)	352	0.6374 (0.5532-0.7217)
<i>P</i> for trend		0.007*		0.457

Abbreviations: eTIV, estimated total intracranial volume; WMLV, white matter lesions volume.

Values were shown as a mean (95% confidence interval).

* *p* for trend < 0.05

Supplementary table 5. Association of daily green tea consumption with white matter lesion volume examined by *ApoE* ϵ 4 status in older adults without dementia.

Green tea consumption (ml)	<i>ApoE</i> ϵ 4 (-)		<i>ApoE</i> ϵ 4 (+)	
	No. of Participants	WMLV/eTIV, (%)	No. of Participants	WMLV/eTIV, (%)
0~200	2024	0.4873 (0.4567-0.5180)	462	0.5139 (0.4465-0.5813)
201~400	909	0.4905(0.4553-0.5258)	203	0.5560 (0.4786-0.6334)
401~600	1261	0.4715(0.4385-0.5044)	269	0.5212 (0.4477-0.5947)
601~	2511	0.4650 (0.4345-0.4955)	536	0.5280 (0.4597-0.5963)
<i>P</i> for trend		0.008*		0.491

Abbreviations: eTIV, estimated total intracranial volume; WMLV, white matter lesions volume.

* *p* for trend < 0.05