

Full title: Association between Carotid Plaque and Cognitive Impairment in Chinese Stroke

Population: The SOS-Stroke Study

Running title: Carotid Plaque and Cognitive Impairment

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Supplementary Tables

Supplementary Table 1. Characteristics of patients according to the inclusion and exclusion.

Variable	Patients included n = 3116	Patients excluded n = 1048	p value
Age ,years	63.42 ± 11.87	65.45 ± 12.60	<0.0001
Sex (men)	2031 (65.18%)	671 (64.03%)	0.4987
Married (Yes)	2908 (93.32%)	999 (95.32%)	0.0200
Alcohol use (Yes)	960 (30.81%)	302 (28.82%)	0.2248
Tobacco use (Yes)	1219 (39.12%)	382 (36.45%)	0.1243
Physical activity (Yes)	1177 (37.77%)	372 (35.50%)	0.1872
Education level, n (%)			
Middle school and below	2822 (90.56%)	951 (90.74)	0.8632
High school and above	294 (9.44%)	97 (9.26%)	
History of disease, n (%)			
Hypertension	2064 (66.24%)	678 (64.69%)	0.3618
Diabetes	717 (23.01%)	255 (24.33%)	0.3815
Hypercholesterolemia	359 (11.52%)	84 (8.02%)	0.0015
Atrial fibrillation	143 (4.59%)	98 (9.35%)	<0.0001
Coronary artery disease	75 (2.41%)	22 (2.10%)	0.5678
NIHSS, score	4 (2-7)	5 (2-11)	<0.0001
TOAST classification, n (%)			

Large artery atherosclerosis	1733 (55.62%)	653 (62.31%)	<0.0001
Cardioembolism	157 (5.04%)	103 (9.83%)	
Small vessel occlusion	1082 (34.72%)	229 (21.85%)	
Other determined etiology and	144 (4.62%)	63 (6.01%)	
Undetermined etiology			

SD: Standard Deviation; MMSE: Mini-Mental State Examination; NIHSS: National Institutes of Health Stroke Scale; TOAST: Trial of Org 10172 in Acute Stroke Treatment.

Supplementary Table 2. Odds ratios of different cognitive domains in MMSE by carotid plaques *.

MMSE	Plaque numbers		Artery numbers with plaque		Plaque echo	
	1 [#]	≥2 [#]	1 [#]	≥2 [#]	Hyperechoic [#]	Hypoechoic [#]
Orientation	1.30 (1.05-1.60)	1.53 (1.28-1.84)	1.29 (1.05-1.58)	1.56 (1.29-1.87)	1.42 (1.20-1.68)	1.67 (1.08-2.57)
Registration	1.30 (1.03-1.65)	1.39 (1.13-1.71)	1.25 (0.99-1.58)	1.44 (1.17-1.78)	1.34 (1.12-1.62)	1.67 (1.04-2.66)
Attention and Calculation	1.45 (1.21-1.73)	1.49 (1.27-1.74)	1.42 (1.20-1.69)	1.51 (1.29-1.77)	1.46 (1.27-1.68)	1.76 (1.20-2.58)
Recall	1.39 (1.16-1.68)	1.48 (1.26-1.75)	1.42 (1.19-1.71)	1.47 (1.24-1.73)	1.42 (1.23-1.64)	1.99 (1.35-2.94)
Language	1.25 (1.05-1.50)	1.39 (1.18-1.62)	1.25 (1.05-1.49)	1.40 (1.19-1.64)	1.30 (1.13-1.50)	2.03 (1.39-3.00)

* Adjusted for as age, sex, education level, marriage status, alcohol use, tobacco use, physical activity, hypertension, diabetes, hypercholesterolemia, atrial fibrillation, coronary artery disease, NIHSS and TOAST.

[#] Refer to the group without carotid plaque.

MMSE: Mini-Mental State Examination; NIHSS: National Institutes of Health Stroke Scale; TOAST: Trial of Org 10172 in Acute Stroke Treatment.