

Supplementary Method

Work-up for stroke

Age, sex, and stroke risk factors, including hypertension, diabetes mellitus, hyperlipidemia, and smoking habits, were obtained for all patients. The type of primary cancer lesion, histology, and presence of systemic metastasis were also recorded. Routine laboratory data were collected for all patients. Both cancer stroke and stroke control patients underwent electrocardiography, 24-hour Holter monitoring or 72-hour in-patient telemonitoring, echocardiography, brain MRI, and MR angiography. The patterns of acute stroke on diffusion-weighted imaging were reviewed and classified as single/multiple lesions involving one vascular ter-

ritory or multiple lesions involving multiple vascular territories by two independent readers (J.W.C. and W.K.S.). Stroke mechanisms were determined using the Causative Classification System (SSS-TOAST)¹ at a regular consensus meeting. To find additional thrombotic disease, such as pulmonary thromboembolism and deep vein thrombosis, we did not routinely perform pulmonary computed tomography angiogram or duplex sonography.

Supplementary Reference

1. Ay H, Furie KL, Singhal A, Smith WS, Sorensen AG, Koroshetz WJ. An evidence-based causative classification system for acute ischemic stroke. *Ann Neurol* 2005;58:688-697.

Supplementary Table 1. Baseline characteristics of developing cohort

	Healthy-control (n=48)	Cancer-control (n=23)	Stroke-control (n=40)	Cancer-stroke (n=32)	P
Age (yr)	57.9±9.8	60.0±9.5	75.0±9.2	65.3±11.8	<0.001
Male sex	14 (29.2)	12 (52.2)	17 (42.5)	15 (46.9)	0.209
Risk factor					
Hypertension	14 (29.2)	7 (30.4)	32 (80.0)	11 (34.4)	<0.001
Diabetes	5 (10.4)	4 (17.4)	16 (40.0)	6 (18.8)	0.010
Dyslipidemia	5 (10.4)	3 (13.0)	11 (27.5)	3 (9.4)	0.128
Smoking	7 (14.6)	5 (21.7)	3 (7.5)	3 (9.4)	0.374
Prior stroke	-	-	10 (25.0)	8 (25.0)	<0.001
Systemic cancer					
Lung cancer	-	20 (87.0)	-	13 (40.6)	-
Metastasis	-	15 (65.2)	-	28 (87.5)	-

Data are presented as mean±standard deviation or n (%).

Supplementary Table 2. Baseline characteristics of validation cohort

	Healthy-control (n=28)	Cancer-control (n=16)	Stroke-control (n=20)	Cancer-stroke (n=13)	P
Age (yr)	59.3±5.5	62.6±8.2	68.3±14.0	64.6±7.6	0.013
Male sex	10 (35.7)	9 (56.2)	15 (75.0)	4 (30.8)	0.024
Risk factor					
Hypertension	8 (28.6)	5 (31.2)	13 (65.0)	4 (30.8)	0.061
Diabetes	3 (10.7)	1 (6.2)	6 (30.0)	1 (7.7)	0.193
Dyslipidemia	3 (10.7)	2 (12.5)	10 (50.0)	2 (15.4)	0.010
Smoking	4 (14.3)	9 (56.2)	5 (25.0)	1 (7.7)	0.010
Prior stroke	-	-	5 (25.0)	2 (15.4)	<0.001
Systemic cancer					
Lung cancer	-	16 (100.0)	-	6 (46.2)	-
Metastasis	-	13 (81.2)	-	10 (76.9)	-

Data are presented as mean±standard deviation or n (%).