

SUPPLEMENTAL MATERIAL

Table S1. Prevalence of vascular risk factors in patients with ischemic stroke

	All ages n=3311	<55 years n=735	55-65 years n=759	65-75 years n=881	≥75 years n=936
Men	1962 (59.3)	397 (54.0)	518 (68.2)	564 (64.0)	483 (51.6)
Non-Caucasian	139/2819 (4.9)	48/643 (7.5)	44/647 (6.8)	28/738 (3.8)	19/791 (2.4)
BMI ≥30 kg/m ²	453/2516 (18.0)	107/575 (18.6)	118/594 (19.9)	141/693 (20.3)	87/654 (13.3)
Hypertension	1793/3268 (54.9)	238/727 (32.7)	413/747 (55.3)	532/871 (61.1)	610/923 (66.1)
Hyperlipidemia	1142/3220 (35.5)	154/721 (21.4)	259/745 (34.8)	379/851 (44.5)	350/903 (38.8)
Diabetes mellitus	518/3252 (15.9)	62/724 (8.6)	84/479 (11.2)	190/860 (22.1)	182/919 (19.8)
Smoking	914/3145 (29.1)	315/717 (43.9)	288/724 (39.8)	202/841 (24.0)	109/863 (12.6)
Family history	900/2438 (36.9)	260/614 (42.3)	229/556 (41.2)	257/655 (39.2)	154/613 (25.1)

Data are in number (%). BMI, body mass index.

Table S2. Mean differences in the prevalence of vascular risk factors in patients with ischemic stroke

	<55 years n=735	55 to 65 years n=759	65 to 75 years* n=881	≥75 years n=936
Male	-10.0 (-14.8 to -5.2)	4.2 (-0.4 to 8.8)	-	-12.4 (-16.9 to -7.9)
Non-Caucasian	3.7 (1.2 to 6.1)	3.0 (0.6 to 5.4)	-	-1.4 (-3.1 to 0.4)
BMI ≥30 kg/m ²	-1.7 (-6.1 to 2.7)	-0.5 (-4.9 to 3.9)	-	-7.0 (-11.0 to -3.1)
Hypertension	-28.3 (-33.1 to -23.6)	-5.8 (-10.6 to -1.0)	-	5.0 (0.6 to 9.5)
Hyperlipidemia	-23.2 (-27.7 to -18.7)	-9.8 (-14.6 to -5.0)	-	-5.8 (-10.4 to -1.2)
Diabetes mellitus	-13.5 (-17.0 to -10.1)	-10.9 (-14.5 to -7.3)	-	-2.3 (-6.1 to 1.5)
Smoking	19.9 (15.3 to 24.6)	15.8 (11.2 to 20.4)	-	-11.4 (-15.0 to -7.7)
Family history	3.1 (-2.3 to 8.5)	2.0 (-3.6 to 7.5)	-	-14.1 (-19.2 to -9.0)

Data are in mean with 95% corresponding confidence intervals. BMI, body mass index.

* This age category was used as reference.

Table S3. Number of potentially modifiable risk factors* in stroke patients according to subtype

	0	1	2	3	4	5
Ischemic stroke						
<55 years (n=735)	27.4	37.6	22.0	8.6	3.4	1.0
55 to 65 years (n=759)	18.8	31.2	27.4	17.1	4.2	1.3
65 to 75 years (n=881)	18.1	28.3	25.9	19.2	7.5	1.0
≥75 years (n=936)	18.2	32.7	30.6	14.5	3.8	0.2
Large artery atherosclerosis						
<55 years (n=104)	5.8	37.9	30.4	16.3	5.6	4.3
55 to 65 years (n=207)	11.7	29.2	28.2	24.5	4.9	1.5
65 to 75 years (n=260)	11.3	25.3	26.1	26.1	9.9	1.3
≥75 years (n=244)	17.7	31.1	33.5	12.9	4.8	0.0
Small vessel disease						
<55 years (n=120)	14.9	32.3	27.0	14.6	9.9	1.3
55 to 65 years (n=182)	13.5	35.1	27.4	18.3	3.2	2.6
65 to 75 years (n=154)	18.8	34.4	21.9	14.0	9.1	1.9
≥75 years (n=176)	17.7	33.1	28.1	16.5	4.5	0.2
Cardioembolic stroke						
<55 years (n=70)	40.7	40.6	12.3	5.0	1.6	0.0
55 to 65 years (n=75)	22.3	33.1	25.6	15.1	4.1	0.0
65 to 75 years (n=122)	20.7	24.9	30.4	17.0	6.9	0.1
≥75 years (n=202)	17.7	35.1	34.0	12.2	1.1	0.0
Spontaneous intracerebral hemorrhage						
<55 years (n=73)	18.2	51.6	22.1	6.2	1.4	0.7
55 to 65 years (n=65)	22.5	46.5	18.0	10.2	3.2	0.0
65 to 75 years (n=98)	16.2	29.7	32.2	19.4	2.6	0.0
≥75 years (n=58)	20.9	30.7	32.8	10.9	5.0	0.0
Aneurysmal subarachnoid hemorrhage						
<55 years (n=196)	24.1	56.3	13.9	4.7	1.1	0.0
55 to 65 years (n=119)	24.5	46.7	11.4	11.2	5.0	1.4
65 to 75 years (n=74)	20.9	42.6	24.2	10.7	1.8	0.0
≥75 years (n=36)	9.2	46.7	24.9	11.3	8.2	0.0

Data are in percentage. n=number.

* Obesity, hypertension, hyperlipidemia, diabetes mellitus and smoking.

Table S4. Prevalence of vascular risk factors in patients ischemic stroke caused by large artery atherosclerosis

	All ages n=817	<55 years n=104	55-65 years n=207	65-75 years n=260	≥75 years n=244
Men	543 (66.5)	55 (52.9)	160 (77.2)	183 (70.4)	145 (58.9)
Non-Caucasian	22/734 (3.0)	3/99 (3.0)	9/189 (4.8)	6/227 (2.6)	4/219 (1.8)
BMI ≥30 kg/m ²	129/641 (20.1)	23/76 (30.3)	31/175 (17.7)	48/216 (22.2)	27/174 (15.5)
Hypertension	502/805 (62.4)	53/101 (52.5)	127/206 (61.7)	161/258 (62.4)	161/240 (67.1)
Hyperlipidemia	352/796 (44.2)	29/101 (28.7)	81/204 (39.7)	139/252 (55.2)	103/239 (43.1)
Diabetes mellitus	140/805 (17.4)	16/102 (15.7)	22/205 (10.7)	66/257 (25.7)	36/241 (14.9)
Smoking	305/794 (38.4)	67/103 (65.0)	114/202 (56.4)	93/257 (36.2)	31/232 (13.4)
Family history	247/624 (39.6)	45/81 (55.6)	65/157 (41.1)	88/209 (42.1)	49/177 (27.7)

Data are in number (%). BMI, body mass index.

Table S5. Mean differences in the prevalence of vascular risk factors in patients with ischemic stroke caused by large artery atherosclerosis

	<55 years n=104	55 to 65 years n=207	65 to 75 years* n=260	≥75 years n=244
Male	-17.5 (-28.7 to -6.3)	6.9 (-1.1 to 14.9)	-	-11.4 (-19.7 to -3.0)
Non-Caucasian	0.4 (-3.5 to 4.3)	2.1 (-1.6 to 5.8)	-	-0.8 (-3.6 to 2.0)
BMI ≥30 kg/m ²	8.0 (-3.9 to 19.9)	-4.5 (-12.5 to 3.5)	-	-6.7 (-14.5 to 1.1)
Hypertension	-9.9 (-21.2 to 1.4)	-0.8 (-9.7 to 8.2)	-	4.4 (-4.0 to 12.9)
Hyperlipidemia	-26.4 (-37.3 to -15.6)	-15.5 (-24.6 to -6.3)	-	-11.7 (-20.5 to -2.9)
Diabetes mellitus	-10.0 (-18.9 to -1.1)	-14.9 (-21.8 to -8.1)	-	-10.6 (-17.7 to -3.6)
Smoking	28.9 (17.8 to 39.9)	20.2 (11.2 to 29.3)	-	-23.1 (-30.5 to -15.8)
Family history	13.5 (0.7 to 26.2)	-0.7 (-11.0 to 9.6)	-	-14.1 (-23.6 to -4.6)

Data are in mean with 95% corresponding confidence intervals. BMI, body mass index.

* This age category was used as reference.

Table S6. Prevalence of vascular risk factors in patients with ischemic stroke caused by small vessel disease

	All ages n=632	<55 years n=120	55-65 years n=182	65-75 years n=154	≥75 years n=176
Men	347 (54.9)	70 (58.3)	120 (65.6)	79 (51.3)	78 (44.3)
Non-Caucasian	31/514 (6.0)	10/98 (10.2)	11/153 (7.2)	7/123 (5.7)	3/140 (2.1)
BMI ≥30 kg/m ²	86/468 (18.4)	26/92 (28.3)	18/125 (14.4)	24/120 (20.0)	18/131 (13.7)
Hypertension	366/630 (58.1)	54/118 (45.8)	104/182 (57.1)	94/154 (61.0)	114/176 (64.8)
Hyperlipidemia	236/624 (37.3)	38/117 (32.5)	71/182 (39.0)	60/151 (39.7)	67/174 (38.5)
Diabetes mellitus	129/627 (20.6)	22/118 (18.6)	33/183 (18.0)	33/151 (21.9)	41/175 (23.4)
Smoking	182/600 (30.3)	60/117 (51.3)	69/181 (38.1)	30/142 (21.1)	23/160 (14.4)
Family history	170/472 (36.0)	43/97 (44.3)	53/139 (38.1)	45/116 (38.8)	29/120 (24.2)

Data are in number (%). BMI, body mass index.

Table S7. Mean differences in the prevalence of vascular risk factors in patients with ischemic stroke caused by small vessel disease

	<55 years n=120	55-65 years n=182	65-75 years* n=154	≥75 years n=176
Male	7.0 (-4.9 to 19.0)	14.1 (3.5 to 24.7)	-	-7.0 (-17.8 to 3.9)
Non-Caucasian	4.5 (-2.8 to 11.9)	1.5 (-4.4 to 7.5)	-	-3.5 (-8.3 to 1.2)
BMI ≥30 kg/m ²	8.3 (-3.5 to 20.1)	-5.6 (-15.1 to 3.9)	-	-6.3 (-15.6 to 3.1)
Hypertension	-15.3 (-27.2 to -3.3)	-3.6 (-14.2 to 7.0)	-	3.7 (-6.8 to 14.2)
Hyperlipidemia	-7.3 (-18.9 to 4.4)	-0.5 (-11.1 to 10.1)	-	-1.2 (-11.9 to 9.5)
Diabetes mellitus	-3.2 (-13.0 to 6.6)	-3.7 (-12.4 to 4.9)	-	1.6 (-7.6 to 10.8)
Smoking	30.2 (18.8 to 41.5)	17.2 (7.4 to 27.0)	-	-6.8 (-15.5 to 2.0)
Family history	5.5 (-7.9 to 18.9)	-0.4 (-12.5 to 11.7)	-	-14.6 (-26.5 to -2.8)

Data are in mean with 95% corresponding confidence intervals. BMI, body mass index.

* This age category was used as reference.

Table S8. Prevalence of vascular risk factors in patients with cardioembolic stroke

	All ages n=469	<55 years n=70	55-65 years n=75	65-75 years n=122	≥75 years n=202
Men	284 (60.6)	43 (61.4)	53 (70.7)	84 (68.9)	104 (51.5)
Non-Caucasian	16/394 (4.1)	3/59 (5.1)	4/60 (6.7)	5/101 (5.0)	4/174 (3.3)
BMI ≥30 kg/m ²	56/345 (16.2)	10/61 (16.4)	18/67 (26.9)	14/82 (17.1)	14/135 (10.4)
Hypertension	273/462 (59.1)	16/70 (22.9)	42/74 (56.8)	75/118 (63.6)	140/200 (70.0)
Hyperlipidemia	142/446 (31.8)	9/69 (13.0)	24/73 (32.9)	50/112 (44.6)	59/192 (30.7)
Diabetes mellitus	76/453 (16.8)	6/69 (8.7)	4/73 (5.5)	26/114 (22.8)	40/197 (20.3)
Smoking	70/441 (15.9)	17/68 (25.0)	18/71 (25.4)	17/113 (15.0)	18/189 (9.5)
Family history	85/323 (26.3)	18/61 (29.5)	19/58 (32.8)	25/79 (31.6)	23/125 (18.4)

Data are in number (%). BMI, body mass index.

Table S9. Mean differences in the prevalence of vascular risk factors in patients with cardioembolic stroke

	<55 years n=70	55 to 65 years n=75	65 to 75 years* n=121	≥75 years n=201
Male	-8.0 (-22.3 to 6.3)	1.2 (-12.1 to 14.6)	-	-17.7 (-28.5 to -6.9)
Non-Caucasian	0.1 (7.0 to 7.2)	1.7 (-5.8 to 9.1)	-	-2.7 (-7.6 to 2.2)
BMI ≥30 kg/m ²	-0.7 (-13.3 to 11.9)	9.8 (-3.8 to 23.4)	-	-6.7 (-16.5 to 3.1)
Hypertension	-40.4 (-53.7 to -27.1)	-6.5 (-20.8 to 7.9)	-	6.6 (-4.3 to 17.5)
Hyperlipidemia	-31.6 (-43.9 to -19.3)	-11.8 (-26.1 to 2.6)	-	-14.3 (-25.7 to -2.9)
Diabetes mellitus	-14.1 (-24.4 to -3.8)	-17.3 (-26.7 to -7.9)	-	-2.9 (-12.4 to 6.6)
Smoking	9.8 (-2.6 to 22.3)	10.2 (-2.1 to 22.5)	-	-5.6 (-13.5 to 2.3)
Family history	-2.1 (-17.8 to 13.5)	1.1 (-15.0 to 17.2)	-	-13.2 (-25.7 to -0.8)

Data are in mean with 95% corresponding confidence intervals. BMI, body mass index.

* This age category was used as reference.

Table S10. Prevalence of vascular risk factors in patients with spontaneous intracerebral hemorrhage

	All ages n=294	<55 years n=73	55-65 years n=65	65-75 years n=98	≥75 years n=58
Men	178 (60.5)	46 (63.0)	41 (63.1)	64 (65.3)	27 (46.6)
Non-Caucasian	23/263 (8.7)	14/65 (21.5)	3/58 (5.2)	4/87 (4.6)	2/53 (3.8)
BMI ≥30 kg/m ²	41/219 (18.7)	14/56 (25.0)	14/50 (28.0)	10/73 (13.7)	3/40 (7.5)
Hypertension	173/293 (59.0)	35/73 (47.9)	33/64 (51.6)	69/98 (70.4)	36/58 (62.1)
Hyperlipidemia	75/288 (26.0)	7/72 (9.7)	10/64 (15.6)	36/95 (37.9)	88/57 (38.6)
Diabetes mellitus	35/294 (11.9)	5/73 (6.8)	3/65 (4.6)	17/98 (17.3)	10/58 (17.2)
Smoking	68/272 (25.0)	24/69 (34.8)	18/63 (28.6)	18/87 (20.7)	8/53 (15.1)
Family history	51/182 (28.0)	18/54 (33.3)	13/42 (31.0)	13/56 (23.2)	7/30 (23.3)

Data are in number (%). BMI, body mass index.

Table S11. Mean differences in the prevalence of vascular risk factors in patients with spontaneous intracerebral hemorrhage

	<55 years n=73	55 to 65 years n=65	65 to 75 years* n=98	≥75 years n=58
Male	-2.3 (-17.0 to 12.4)	-2.2 (-17.4 to 13.0)	-	-18.8 (-35.0 to -2.5)
Non-Caucasian	16.9 (5.8 to 28.1)	0.6 (-6.7 to 7.8)	-	-0.8 (-7.9 to 6.2)
BMI ≥30 kg/m ²	11.3 (-2.8 to 25.4)	14.3 (-0.8 to 29.4)	-	-6.2 (-17.8 to 5.4)
Hypertension	-22.5 (-37.1 to -7.7)	-18.8 (-34.3 to -3.4)	-	-8.3 (-24.0 to 7.4)
Hyperlipidemia	-28.2 (-40.3 to -16.1)	-22.3 (-35.7 to -8.9)	-	0.7 (-15.6 to 17.0)
Diabetes mellitus	-10.5 (-20.1 to -0.9)	-12.7 (-21.9 to -3.5)	-	-0.1 (-12.6 to 12.4)
Smoking	14.1 (-0.2 to 28.4)	7.9 (-6.4 to 22.2)	-	-5.6 (-19.1 to 7.9)
Family history	10.1 (-6.9 to 27.2)	7.7 (-10.5 to 26.0)	-	0.1 (-19.1 to 19.4)

Data are in mean with 95% corresponding confidence intervals. BMI, body mass index.

* This age category was used as reference.

Table S12. Prevalence of vascular risk factors in patients with aneurysmal subarachnoid hemorrhage

	All ages n=428	<55 years n=196	55-65 years n=119	65-75 years n=74	≥75 years n=39
Men	112 (26.2)	39 (19.9)	44 (37.0)	15 (20.3)	14 (35.9)
Non-Caucasian	25/425 (5.9)	17/194 (8.8)	3/119 (2.5)	5/73 (6.8)	0/39 (0.0)
BMI ≥30 kg/m ²	53/373 (14.2)	22/172 (12.8)	15/104 (14.4)	11/62 (17.7)	5/35 (14.3)
Hypertension	136/318 (32.1)	38/194 (19.6)	39/118 (33.1)	31/73 (42.5)	28/39 (71.8)
Hyperlipidemia	60/420 (14.3)	10/194 (5.2)	20/116 (17.2)	17/72 (23.6)	13/38 (34.2)
Diabetes mellitus	20/427 (4.7)	5/196 (2.6)	7/119 (5.9)	3/73 (4.1)	5/39 (12.8)
Smoking	219/405 (54.1)	119/191 (62.3)	65/113 (57.5)	27/68 (39.7)	8/33 (24.2)
Family history*	27/328 (8.2)	13/163 (8.0)	8/85 (9.4)	4/57 (7.0)	2/23 (8.7)

Data are in number (%). BMI, body mass index.

* A first degree relative with a past subarachnoid hemorrhage was considered as familial occurrence.

Table S13. Mean differences in the prevalence of vascular risk factors in patients with aneurysmal subarachnoid hemorrhage

	<55 years n=196	55 to 65 years* n=119	65 to 75 years n=74	≥75 years n=36
Male	-17.1 (-27.5 to -6.7)	-	-16.7 (-29.5 to -3.9)	-1.0 (-18.8 to 16.6)
Non-Caucasian	6.2 (1.3 to 11.2)	-	4.3 (-1.5 to 10.2)	-2.5 (-5.4 to 0.3)
BMI ≥30 kg/m ²	-1.6 (-10.0 to 6.7)	-	3.3 (-8.3 to 14.9)	-0.1 (-13.8 to 13.5)
Hypertension	-13.5 (-23.7 to -3.2)	-	9.4 (-4.7 to 23.8)	38.7 (21.7 to 55.8)
Hyperlipidemia	-12.1 (-19.7 to -4.5)	-	6.4 (-5.8 to 18.5)	17.0 (-0.2 to 34.1)
Diabetes mellitus	-3.3 (-7.7 to 1.0)	-	-1.8 (-8.3 to 4.8)	6.9 (-4.8 to 18.7)
Smoking	4.8 (-6.7 to 16.2)	-	-17.8 (-32.8 to -2.8)	-33.3 (-51.1 to -15.5)
Family history†	-1.4 (-8.8 to 5.9)	-	-2.4 (-11.9 to 7.1)	-0.7 (-14.3 to 12.9)

Data are in mean with 95% corresponding confidence intervals. BMI, body mass index.

* This age category was used as reference.

† First degree relative with a past subarachnoid hemorrhage.