

## Supplementary

**Table S1** The top 100 cited articles on carotid stenosis

Rank	Article	Citations	Citation rate
1	Taylor DW. Beneficial effect of carotid endarterectomy in symptomatic patients with high-grade carotid stenosis. <i>N Engl J Med</i> 1991;325(7):445-53.	5,424	193.7
2	Walker MD, Marler JR, Goldstein M, et al. Endarterectomy for asymptomatic carotid-artery stenosis. <i>JAMA</i> 1995;273(18):1421-8.	3,568	148.7
3	Warlow C. MRC European Carotid Surgery Trial: interim results for symptomatic patients with severe (70-99%) or with mild (0-29%) carotid stenosis. European Carotid Surgery Trialists' Collaborative Group. <i>Lancet</i> 1991;337(8752):1235-43.	2,269	81
4	Barnett HJM, Taylor W, Eliasziw M, et al. Benefit of carotid endarterectomy in patients with symptomatic moderate or severe stenosis. <i>N Engl J Med</i> 1998;339(20):1415-25.	2,179	103.8
5	Farrell B, Fraser A, Sandercock P, et al. Randomised trial of endarterectomy for recently symptomatic carotid stenosis: final results of the MRC European carotid surgery trial (ECST). <i>Lancet</i> 1998;351(9113):1379-87.	1,990	94.8
6	Yadav JS, Wholey MH, Kuntz RE, et al. Protected carotid-artery stenting versus endarterectomy in high-risk patients. <i>N Engl J Med</i> 2004;351(15):1493-501.	1,807	120.5
7	Halliday A, Mansfield A, Marro J, et al. Prevention of disabling and fatal strokes by successful carotid endarterectomy in patients without recent neurological symptoms: randomised controlled trial. <i>Lancet</i> 2004;363(9420):1491-502.	1,568	104.5
8	Brott TG, Hobson RW, Howard G, et al. Stenting versus Endarterectomy for Treatment of Carotid-Artery Stenosis. <i>N Engl J Med</i> 2010;363(1):11-23.	1,555	172.8
9	Mas J, Chatellier G, Beyssen B, et al. Endarterectomy versus stenting in patients with symptomatic severe carotid stenosis. <i>N Engl J Med</i> 2006;355(16):1660-71.	1,032	79.4
10	Hobson RW, Weiss DG, Fields WS, et al. Efficacy of carotid endarterectomy for asymptomatic carotid stenosis. <i>N Engl J Med</i> 1993;328(4):221-7.	1,000	38.5
11	Selhub J, Jacques PF, Bostom AG, et al. Association between plasma homocysteine concentrations and extracranial carotid-artery stenosis. <i>N Engl J Med</i> 1995;332(5):286-91.	979	40.8
12	Ringleb PA, Allenberg J, Berger J, et al. 30 day results from the SPACE trial of stent-protected angioplasty versus carotid endarterectomy in symptomatic patients: a randomised non-inferiority trial. <i>Lancet</i> 2006;368(9543):1239-47.	967	74.4
13	Rothwell PM, Eliasziw M, Gutnikov SA, et al. Analysis of pooled data from the randomised controlled trials of endarterectomy for symptomatic carotid stenosis. <i>Lancet</i> 2003;361(9352):107-16.	962	60.1
14	Brown MM, Rogers J, Bland JM, et al. Endovascular versus surgical treatment in patients with carotid stenosis in the Carotid and Vertebral Artery Transluminal Angioplasty Study (CAVATAS): a randomised trial. <i>Lancet</i> 2001;357(9270):1729-37.	900	50
15	Rothwell PM, Eliasziw M, Gutnikov SA, et al. Endarterectomy for symptomatic carotid stenosis in relation to clinical subgroups and timing of surgery. <i>Lancet</i> 2004;363(9413):915-24.	867	57.8
16	Ederle J, Dobson J, Featherstone RL, et al. Carotid artery stenting compared with endarterectomy in patients with symptomatic carotid stenosis (International Carotid Stenting Study): an interim analysis of a randomised controlled trial. <i>Lancet</i> 2010;375(9719):985-97.	771	85.7
17	Crisby M, Nordin-Fredriksson G, Shah PK, et al. Pravastatin treatment increases collagen content and decreases lipid content, inflammation, metalloproteinases, and cell death in human carotid plaques- Implications for plaque stabilization. <i>Circulation</i> 2001;103(7):926-33.	765	42.5
18	Grant EG, Benson CB, Moneta GL, et al. Carotid artery stenosis: Gray-scale and Doppler US diagnosis-Society of Radiologists in Ultrasound consensus conference. <i>Radiology</i> 2003;229(2):340-6.	754	47.1

**Table S1 (continued)**

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Rank	Article	Citations	Citation rate
19	Barnett HJM. North American Symptomatic Carotid Endarterectomy Trial. Methods, patient characteristics, and progress. <i>Stroke</i> 1991;22(6):711-20.	688	24.6
20	Mayberg MR, Wilson SE, Yatsu F, et al. Carotid endarterectomy and prevention of cerebral-ischemia in symptomatic carotid stenosis. <i>JAMA</i> 1991;266(23):3289-94.	677	24.2
21	Oleary DH, Polak JF, Kronmal RA, et al. Distribution and correlates of sonographically detected carotid-artery disease in the cardiovascular health study. <i>Stroke</i> 1992;23(12):1752-60.	669	24.8
22	Ferguson GG, Eliasziw M, Barr HWK, et al. The North American Symptomatic Carotid Endarterectomy Trial - Surgical results in 1415 patients. <i>Stroke</i> 1999;30(9):1751-8.	618	30.9
23	Tawakol A, Migrino RQ, Bashian GG, et al. In vivo F-18-fluorodeoxyglucose positron emission tomography imaging provides a noninvasive measure of carotid plaque inflammation in patients. <i>J Am Coll Cardiol</i> 2006;48(9):1818-24.	581	44.7
24	Yuan C, Mitsumori LM, Ferguson MS, et al. In vivo accuracy of multispectral magnetic resonance imaging for identifying lipid-rich necrotic cores and intraplaque hemorrhage in advanced human carotid plaques. <i>Circulation</i> 2001;104(17):2051-6.	522	29
25	Roubin GS, New G, Iyer SS, et al. Immediate and late clinical outcomes of carotid artery stenting in patients with symptomatic and asymptomatic carotid artery stenosis - A 5-year prospective analysis. <i>Circulation</i> 2001;103(4):532-7.	521	28.9
26	Craven TE, Ryu JE, Espeland MA, et al. Evaluation of the associations between carotid-artery atherosclerosis and coronary-artery stenosis - a case-control study. <i>Circulation</i> 1990;82(4):1230-42.	518	17.9
27	Yadav JS, Roubin GS, Iyer S, et al. Elective stenting of the extracranial carotid arteries. <i>Circulation</i> 1997;95(2):376-81.	513	23.3
28	Takaya N, Yuan C, Chu BC, et al. Association between carotid plaque characteristics and subsequent ischemic cerebrovascular events - A prospective assessment with MRI - Initial results. <i>Stroke</i> 2006;37(3):818-23.	485	37.3
29	Eckstein HH, Ringleb P, Allenberg JR, et al. Results of the Stent-Protected Angioplasty versus Carotid Endarterectomy (SPACE) study to treat symptomatic stenoses at 2 years: a multinational, prospective, randomised trial. <i>Lancet Neurol</i> 2008;7(10):893-902.	477	43.4
30	Cai JM, Hastukami TS, Ferguson MS, et al. Classification of human carotid atherosclerotic lesions with in vivo multicontrast magnetic resonance imaging. <i>Circulation</i> 2002;106(11):1368-73.	472	27.8
31	Gurm HS, Yadav JS, Fayad P, et al. Long-term results of carotid stenting versus endarterectomy in high-risk patients. <i>N Engl J Med</i> 2008;358(15):1572-9.	467	42.5
32	Diethrich EB, Ndiaye M, Raid DB. Stenting in the carotid artery: Initial experience in 110 patients. <i>J Endovasc Surg</i> 1996;3(1):42-62.	459	20
33	Crouse JR, Byington RP, Bond MG, et al. Pravastatin, lipids, and atherosclerosis in the carotid arteries (PLAC-II). <i>Am J Cardiol</i> 1995;75(7):455-9.	455	19
34	Oleary DH, Polak JF, Wolfson SK, et al. Use of sonography to evaluate carotid atherosclerosis in the elderly - the cardiovascular health study. <i>Stroke</i> 1991;22(9):1155-63.	453	16.2
35	Asahara T, Bauters C, Pastore C, et al. Local-delivery of vascular endothelial growth-factor accelerates reendothelialization and attenuates intimal hyperplasia in balloon-injured rat carotid-artery. <i>Circulation</i> 1995;91(11):2793-801.	443	18.5
36	Markus HS, Droste DW, Kaps M, et al. Dual antiplatelet therapy with clopidogrel and aspirin in symptomatic carotid stenosis evaluated using Doppler embolic signal detection - The Clopidogrel and Aspirin for Reduction of Emboli in Symptomatic Carotid Stenosis (CARESS) trial. <i>Circulation</i> 2005;111(17):2233-40.	442	31.6

Table S1 (continued)

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Rank	Article	Citations	Citation rate
37	Inzitari D, Eliasziw M, Gates P, et al. The causes and risk of stroke in patients with asymptomatic internal-carotid-artery stenosis. <i>N Engl J Med</i> 2000;342(23):1693-700.	439	23.1
38	Kastrup A, Groschel K, Krapf H, et al. Early outcome of carotid angioplasty and stenting with and without cerebral protection devices - A systematic review of the literature. <i>Stroke</i> 2003;34(3):813-9.	424	26.5
39	Hatsukami TS, Ross R, Polissar NL, et al. Visualization of fibrous cap thickness and rupture in human atherosclerotic carotid plaque <i>in vivo</i> with high-resolution magnetic resonance imaging. <i>Circulation</i> 2000;102(9):959-64.	414	21.8
40	Halliday A, Harrison M, Hayter E, et al. 10-year stroke prevention after successful carotid endarterectomy for asymptomatic stenosis (ACST-1): a multicentre randomised trial. <i>Lancet</i> 2010;376(9746):1074-84.	407	45.2
41	Liapis CD, Bell PRF, Mikhailidis D, et al. ESVS Guidelines. Invasive Treatment for Carotid Stenosis: Indications, Techniques. <i>Eur J Vasc Endovasc Surg</i> 2009;37:S1-S19.	403	40.3
42	Mathiesen EB, Bonaa KH, Joakimsen O. Echolucent plaques are associated with high risk of ischemic cerebrovascular events in carotid stenosis - The Tromso Study. <i>Circulation</i> 2001;103(17):2171-5.	397	22.1
43	Hobson RW, Howard VJ, Roubin GS, et al. Carotid artery stenting is associated with increased complications in octogenarians: 30-day stroke and death rates in the CREST lead-in phase. <i>J Vasc Surg</i> 2004;40(6):1106-10.	389	25.9
44	Mas JL, Trinquart L, Leys D, et al. Endarterectomy Versus Angioplasty in Patients with Symptomatic Severe Carotid Stenosis (EVA-3S) trial: results up to 4 years from a randomised, multicentre trial. <i>Lancet Neurol</i> 2008;7(10):885-92.	379	34.5
45	Abbott AL. Medical (Nonsurgical) Intervention Alone Is Now Best for Prevention of Stroke Associated with Asymptomatic Severe Carotid Stenosis Results of a Systematic Review and Analysis. <i>Stroke</i> 2009;40(10):E573-E83.	373	37.3
46	Taylor DW, Barnett HJM, Haynes RB, et al. Low-dose and high-dose acetylsalicylic acid for patients undergoing carotid endarterectomy: a randomised controlled trial. <i>Lancet</i> 1999;353(9171):2179-84.	363	18.2
47	Wholey MH, Wholey M, Mathias K, et al. Global experience in cervical carotid artery stent placement. <i>Catheter Cardiovasc Interv</i> 2000;50(2):160-7.	359	18.9
48	Wennberg DE, Lucas FL, Birkmeyer JD, et al. Variation in carotid endarterectomy mortality in the Medicare population - Trial hospitals, volume, and patient characteristics. <i>JAMA</i> 1998;279(16):1278-81.	354	16.9
49	Bonati LH, Jongen LM, Haller S, et al. New ischaemic brain lesions on MRI after stenting or endarterectomy for symptomatic carotid stenosis: a substudy of the International Carotid Stenting Study (ICSS). <i>Lancet Neurol</i> 2010;9(4):353-62.	350	38.9
50	Wholey MH, Al-Mubarek N, Wholey MH. Updated review of the global carotid artery stent registry. <i>Catheter Cardiovasc Interv</i> 2003;60(2):259-66.	346	21.6
51	Moneta GL, Edwards JM, Papanicolaou G, et al. Screening for asymptomatic internal carotid artery stenosis: duplex criteria for discriminating 60% to 99% stenosis. <i>J Vasc Surg</i> 1995;21(6):989-94.	341	13.1
52	Gronholdt MLM, Nordestgaard BG, Schroeder TV, et al. Ultrasonic echolucent carotid plaques predict future strokes. <i>Circulation</i> 2001;104(1):68-73.	339	18.8
53	Naylor AR, Bolia A, Abbott RJ, et al. Randomized study of carotid angioplasty and stenting versus carotid endarterectomy: A stopped trial. <i>J Vasc Surg</i> 1998;28(2):326-34.	336	16
54	Norris JW, Zhu CZ, Bornstein NM, et al. Vascular risks of asymptomatic carotid stenosis. <i>Stroke</i> 1991;22(12):1485-90.	335	12
55	Silvestrini M, Vernieri F, Pasqualetti P, et al. Impaired cerebral vasoreactivity and risk of stroke in patients with asymptomatic carotid artery stenosis. <i>JAMA</i> 2000;283(16):2122-7.	332	17.5

Table S1 (continued)

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Rank	Article	Citations	Citation rate
56	Adams MR, Nakagomi A, Keech A, et al. Carotid intima-media thickness is only weakly correlated with the extent and severity of coronary-artery disease. <i>Circulation</i> 1995;92(8):2127-34.	332	13.8
57	Markus H, Cullinane M. Severely impaired cerebrovascular reactivity predicts stroke and TIA risk in patients with carotid artery stenosis and occlusion. <i>Brain</i> 2001;124:457-67.	329	18.3
58	Theron JG, Payelle GG, Coskun O, et al. Carotid artery stenosis: Treatment with protected balloon angioplasty and stent placement. <i>Radiology</i> 1996;201(3):627-36.	323	14
59	Fox AJ. How to measure carotid stenosis. <i>Radiology</i> 1993;186(2):316-8.	323	12.4
60	Redgrave JNE, Lovett JK, Gallagher PJ, et al. Histological assessment of 526 symptomatic carotid plaques in relation to the nature and timing of ischemic symptoms - The Oxford plaque study. <i>Circulation</i> 2006;113(19):2320-8.	322	24.8
61	Carr S, Farb A, Pearce WH, et al. Atherosclerotic plaque rupture in symptomatic carotid artery stenosis. <i>J Vasc Surg</i> 1996;23(5):755-65.	322	14
62	Chaturvedi S, Bruno A, Feasby T, et al. Carotid endarterectomy - An evidence-based review - Report of the therapeutics and technology assessment subcommittee of the American Academy of Neurology. <i>Neurology</i> 2005;65(6):794-801.	316	22.6
63	Blankenhorn DH, Selzer RH, Crawford DW, et al. Beneficial effects of colestipol-niacin therapy on the common carotid artery. Two- and four-year reduction of intima-media thickness measured by ultrasound. <i>Circulation</i> 1993;88(1):20-8.	314	12.1
64	Yuan C, Mitsumori LM, Beach KW, et al. Carotid atherosclerotic plaque: Noninvasive MR characterization and identification of vulnerable lesions. <i>Radiology</i> 2001;221(2):285-99.	312	17.3
65	Biasi GM, Froio A, Diethrich EB, et al. Carotid plaque echolucency increases the risk of stroke in carotid stenting - The Imaging in Carotid Angioplasty and Risk of Stroke (ICAROS) study. <i>Circulation</i> 2004;110(6):756-62.	301	20.1
66	Lewis SC, Warlow CP, Bodenham AR, et al. General anaesthesia versus local anaesthesia for carotid surgery (GALA): a multicentre, randomised controlled trial. <i>Lancet</i> 2008;372(9656):2132-42.	300	27.3
67	Eliasziw M, Streifler JY, Fox AJ, et al. Significance of plaque ulceration in symptomatic patients with high-grade carotid stenosis. <i>Stroke</i> 1994;25(2):304-8.	298	11.9
68	Rothwell PM, Warlow CP, European Carotid Surg Trialists Collaborative G. Prediction of benefit from carotid endarterectomy in individual patients: a risk-modelling study. <i>Lancet</i> 1999;353(9170):2105-10.	297	14.9
69	Moody AR, Murphy RE, Morgan PS, et al. Characterization of complicated carotid plaque with magnetic resonance direct thrombus imaging in patients with cerebral ischemia. <i>Circulation</i> 2003;107(24):3047-52.	294	18.4
70	Golledge J, McCann M, Mangan S, et al. Osteoprotegerin and osteopontin are expressed at high concentrations within symptomatic carotid atherosclerosis. <i>Stroke</i> 2004;35(7):1636-41.	292	15.4
71	Gray WA, Hopkins LN, Yadav S, et al. Protected carotid stenting in high-surgical-risk patients: The ARCHeR results. <i>J Vasc Surg</i> 2006;44(2):258-68.	290	22.3
72	Marquardt L, Geraghty OC, Mehta Z, et al. Low Risk of Ipsilateral Stroke in Patients with Asymptomatic Carotid Stenosis on Best Medical Treatment A Prospective, Population-Based Study. <i>Stroke</i> 2010;41(1):E11-E7.	286	31.8
73	Spagnoli LG, Mauriello A, Sangiorgi G, et al. Extracranial thrombotically active carotid plaque as a risk factor for ischemic stroke. <i>JAMA</i> 2004;292(15):1845-52.	285	19
74	Crouse JR, Craven TE, Hagaman AP, et al. Association of coronary-disease with segment-specific intimal-medial thickening of the extracranial carotid-artery. <i>Circulation</i> 1995;92(5):1141-7.	282	11.8

Table S1 (continued)

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Rank	Article	Citations	Citation rate
75	Rothwell PM, Gutnikov SA, Warlow CP, et al. Reanalysis of the final results of the European Carotid Surgery Trial. <i>Stroke</i> 2003;34(2):514-23.	279	17.4
76	Wofford JL, Kahl FR, Howard GR, et al. Relation of extent of extracranial carotid-artery atherosclerosis as measured by b-mode ultrasound to the extent of coronary atherosclerosis. <i>Arterioscler Thromb 1991</i> ;11(6):1786-94.	277	9.9
77	Ricotta JJ, AbuRahma A, Ascher E, et al. Updated Society for Vascular Surgery guidelines for management of extracranial carotid disease. <i>J Vasc Surg</i> 2011;54(3):E1-E31.	275	34.4
78	Bonati LH, Dobson J, Algra A, et al. Short-term outcome after stenting versus endarterectomy for symptomatic carotid stenosis: a preplanned meta-analysis of individual patient data. <i>Lancet</i> 2010;376(9746):1062-73.	273	30.3
79	Yuan C, Kerwin WS, Ferguson MS, et al. Contrast-enhanced high resolution MRI for atherosclerotic carotid artery tissue characterization. <i>J Magn Reson Imaging</i> 2002;15(1):62-7.	267	15.7
80	McCarthy MJ, Loftus IM, Thompson MM, et al. Angiogenesis and the atherosclerotic carotid plaque: An association between symptomatology and plaque morphology. <i>J Vasc Surg</i> 1999;30(2):261-8.	265	13.3
81	Brooks WH, McClure RR, Jones MR, et al. Carotid angioplasty and stenting versus carotid endarterectomy: Randomized trial in a community hospital. <i>J Am Coll Cardiol</i> 2001;38(6):1589-95.	263	14.6
82	Chu BC, Kampschulte A, Ferguson MS, et al. Hemorrhage in the atherosclerotic carotid plaque: A high-resolution MRI study. <i>Stroke</i> 2004;35(5):1079-84.	261	17.4
83	Polak JF, Shemanski L, O'Leary DH, et al. Hypoechoic plaque at US of the carotid artery: An independent risk factor for incident stroke in adults aged 65 years or older. <i>Radiology</i> 1998;208(3):649-54.	260	12.4
84	Rothwell PM, Slattery J, Warlow CP. Clinical and angiographic predictors of stroke and death from carotid endarterectomy: systematic review. <i>Bmj-British Medical Journal</i> 1997;315(7122):1571-7.	259	11.8
85	Sitzer M, Muller W, Siebler M, et al. Plaque ulceration and lumen thrombus are the main sources of cerebral microemboli in high-grade internal carotid-artery stenosis. <i>Stroke</i> 1995;26(7):1231-3.	258	10.8
86	Bots ML, Hofman A, Grobbee DE. Increased common carotid intima-media thickness - Adaptive response or a reflection of atherosclerosis? Findings from the Rotterdam study. <i>Stroke</i> 1997;28(12):2442-7.	256	11.6
87	Tang TY, Howarth SPS, Miller SR, et al. The ATHEROMA (Atorvastatin Therapy: Effects on Reduction of Macrophage Activity) Study Evaluation Using Ultrasmall Superparamagnetic Iron Oxide-Enhanced Magnetic Resonance Imaging in Carotid Disease. <i>J Am Coll Cardiol</i> 2009;53(22):2039-50.	252	25.2
88	Rothwell PM, Gibson R, Warlow CP, et al. Interrelation between plaque surface morphology and degree of stenosis on carotid angiograms and the risk of ischemic stroke in patients with symptomatic carotid stenosis. <i>Stroke</i> 2000;31(3):615-21.	249	13.1
89	Prati P, Vanuzzo D, Casaroli M, et al. Prevalence and determinants of carotid atherosclerosis in a general-population. <i>Stroke</i> 1992;23(12):1705-11.	247	9.1
90	Rothwell PM, Slattery J, Warlow CP. Systematic review of the risks of stroke and death due to endarterectomy for symptomatic carotid stenosis. <i>Stroke</i> 1996;27(2):260-5.	246	10.7
91	Riles TS, Imparato AM, Jacobowitz GR, et al. The cause of perioperative stroke after carotid endarterectomy. <i>J Vasc Surg</i> 1994;19(2):206-16.	245	9.8
92	Henderson RD, Eliasziw M, Fox AJ, et al. Angiographically defined collateral circulation and risk of stroke in patients with severe carotid artery stenosis. <i>Stroke</i> 2000;31(1):128-32.	243	12.8
93	Diener HC. Carotid surgery versus medical therapy in asymptomatic carotid stenosis. <i>Stroke</i> 1991;22(10):1229-35.	241	8.6

**Table S1** (continued)

**Table S1** (continued)

Rank	Article	Citations	Citation rate
94	Bonora E, Kiechl S, Willeit J, et al. Carotid atherosclerosis and coronary heart disease in the metabolic syndrome: prospective data from the Bruneck study. <i>Diabetes Care</i> 2003;26(4):1251-7.	239	14.9
95	Rothwell PM, Gibson RJ, Slattery J, et al. equivalence of measurements of carotid stenosis-a comparison of 3 methods on 1001 angiograms. <i>Stroke</i> 1994;25(12):2435-9.	238	9.5
96	Moore WS, Barnett HJM, Beebe HG, et al. Guidelines for carotid endarterectomy - a multidisciplinary consensus statement from the ad-hoc-committee, American-heart-association. <i>Circulation</i> 1995;91(2):566-79.	237	9.9
97	Trivedi RA, Mallawarachi C, U-King-Im JM, et al. Identifying inflamed carotid plaques using in vivo USPIO-enhanced MR imaging to label plaque macrophages. <i>Arterioscler Thromb Vasc Biol</i> 2006;26(7):1601-6.	235	18.1
98	Fineidelberg JS, Wolf PA, Oleary DH, et al. Precursors of extracranial carotid atherosclerosis in the Framingham-study. <i>Neurology</i> 1994;44(6):1046-50.	232	9.3
99	Brott TG, Howard G, Roubin GS, et al. Long-Term Results of Stenting versus Endarterectomy for Carotid-Artery Stenosis. <i>N Engl J Med</i> 2016;374(11):1021-31.	231	77
100	Mannami T, Konishi M, Baba S, et al. Prevalence of asymptomatic carotid atherosclerotic lesions detected by high-resolution ultrasonography and its relation to cardiovascular risk factors in the general population of a Japanese city - The Suita study. <i>Stroke</i> 1997;28(3):518-25.	230	10.5