# Appendix I

Table 1. Carotid Artery Stenting Trials

| Author/ Year | Study Design | Demographics | Results | |
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| | | | **CAS** | CEA |
| Brooks et al., 2001. | Rand. Trial n=104.<br>Inclusion: symptoms/signs cerebral ischemia ipsilateral ICA, events within 3 months of eval., >70% stenosis, life expect. 5 yrs., willingness, sign informed consent.<br>Exclusion: vertebral-basilar insuff., intracranial occlusive disease, NIH stroke scale >4, arrhythmia, allergy aspirin, heparin, ticlopidine, clopidogrel, bleeding or coagulopathy, h/o ICH.<br>Patients received aspirin and clopidogrel. | Mean age=66 yrs CAS group.<br>Mean age=70 yrs CEA group.<br>Male/female not reported.<br>Presenting symptoms= stroke, TIA, amaurosis fugax.<br>Mean follow-up not reported. | N=53.<br>Death=0.<br>Stroke=0.<br>Transient cerebral ischemia=1. | N=51.<br>Death=1.<br>Stroke=0.<br>Transient cerebral ischemia=0. |
| Brooks et al., 2004. | Randomized trial n=85.<br>Inclusion: >80% internal carotid stenosis by angiography, life expect. 5 yrs., willingness, sign informed consent.<br>Exclusion: any symptom cerebrovascular ischemia, arrhythmia, allergy aspirin, heparin, clopidogrel, bleeding or coagulopathy.<br>Patients received aspirin and clopidogrel. | Mean age=67 yrs CAS group.<br>Mean age=70 yrs CEA group.<br>Male/female not reported.<br>Mean follow-up not reported. | N=43.<br>Stroke/TIA=0. | N=42.<br>Stroke/TIA=0. |
| CAVATAS, 2001. | Randomized trial n=504.<br>Inclusion: stenosis of the common carotid artery, carotid bifurcation, or internal carotid artery that investigators believed needed treatment and was suitable for both carotid endarterectomy and endovascular treatment.<br>Exclusion: unsuitable for surgery because of medical or surgical risk factors (eg, recent myocardial infarction, poorly controlled hypertension or diabetes mellitus, renal disease, respiratory failure, inaccessible carotid stenosis, or severe cervical spondylosis), unwilling to undergo either procedure, unable to give informed consent, or if they had a disabling stroke with no useful recovery of function within the region supplied by the treatable artery, if angiography showed thrombus in the carotid artery, severe intracranial carotid artery stenosis beyond the skull base, or a stenosis unsuitable for endovascular treatment—eg, because of tortuous vascular anatomy. | Mean age=67 yrs endovascular group.<br>Mean age=67 yrs CEA group.<br>Male=69% endovascular group.<br>Malee=70% CEA group.<br>Mean follow-up=1.95 yrs. | N=251 for endovascular treatment.<br>Deaths=7.<br>Disabling stroke=9.<br>Non-disabling stroke=9.<br>Death or any stroke=25.<br><br>Subgroup N=55 stenting.<br>Stroke=3.<br>Cerebral hem =2. | N=253.<br>Deaths=4.<br>Disabling stroke=11.<br>Non-disabling stroke=10.<br>Death or any stroke=25. |
| Yadav et al., 2004. | Randomized trial n=334.<br>Patients were randomly assigned to a procedure only if all members of the team were in agreement that the patient was a suitable candidate for either endarterectomy or stenting.<br>Inclusion: Age ≥18 yr, unilateral or bilateral atherosclerotic or restenotic lesions in native carotid arteries, symptoms plus stenosis of more than 50% of the luminal diameter, no symptoms plus stenosis of more than 80% of the luminal diameter, criteria for high risk (at least one factor required) | Mean age=72.5 yrs CAS group.<br>Mean age=72.6 yrs CEA group.<br>Male=66.9% CAS group.<br>Male=67.1% CEA group.<br>Mean follow-up | Death=2.<br>Stroke=6.<br>MI=4.<br>Death, stroke or MI=8. | Death=4.<br>Stroke=5.<br>MI=10.<br>Death, stroke or MI=16. |

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| | -clinically significant cardiac disease (congestive heart failure, abnormal stress test, or need for open-heart surgery), severe pulmonary disease, contralateral carotid occlusion, contralateral laryngeal-nerve palsy, previous radical neck surgery or radiation therapy to the neck, recurrent stenosis after endarterectomy, age >80 yr. Exclusion: Ischemic stroke within previous 48 hr., intraluminal thrombus, total occlusion of target vessel, vascular disease precluding use of catheter-based techniques, intracranial aneurysm >9 mm in diameter, need > 2 stents, h/o bleeding disorder, percutaneous or surgical intervention planned within next 30 days, life expectancy <1 yr., ostial lesion of common carotid artery or brachiocephalic artery. | not reported. | | |