

Treatment of Asymptomatic Carotid Artery Disease: Similar Early Outcomes after Carotid Stenting for High Risk Patients and Endarterectomy for Standard Risk Patients

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OBJECTIVES: The role of carotid angioplasty and stenting (CAS) in the treatment of asymptomatic patients with carotid disease remains controversial. The purpose of this report was to compare outcomes in asymptomatic patients treated with CEA or CAS. The same team of vascular surgeons performed either CEA on standard risk patients, or CAS on high risk patients. For most of the surgeons, despite extensive endovascular experience, this was their initial experience performing CAS. **METHODS:** Patients with >70% asymptomatic carotid stenosis treated between September 2003 (when the first CAS was performed) and December 2004 were identified. CEA was the first therapeutic consideration in all patients. CAS was reserved for high risk patients using SAPHIRE trial criteria. **RESULTS:** 67 CAS and 116 CEA cases for asymptomatic stenosis were performed. Carotid protection devices (CPD) were used in 90% of CAS patients. In the CAS group, there were no deaths and 1 stroke (1.5%). In the CEA group, 3 strokes (2.6%, p=NS) occurred, one associated with death. The CAS group had 1.24 ± 0.84 SAPHIRE risk factors versus 0.42 ± 0.80 in the CEA group ($p < 0.001$). There was no difference in symptomatic post-procedural rates of MI or severe arrhythmias. Median CAS and CEA length of stay was 1 day. **CONCLUSIONS:** CAS for asymptomatic carotid stenosis demonstrated equivalent outcomes compared with CEA in the hands of experienced surgeons, despite a) CAS being reserved for use in a disadvantaged subset of patients and b) no prior experience performing CAS procedures for most of the surgeons. These results suggest that expansion of CAS to treat standard risk asymptomatic patients should be considered. Enthusiasm for CAS should be tempered by the recognition that long-term outcomes in CAS treated asymptomatic patients remains unknown.