

**Carotid Artery Stenting: Evaluation of a Neurology-Cardiology Team Approach**

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Background: Periprocedural complication rates of carotid stenting (CAS) vary substantially depending on patient characteristics, case volume load and examiner bias. We present safety and efficacy data of our prospectively conducted CAS registry reflecting the results of a joint vascular neurology and cardiology team approach.

Methods: A multidisciplinary system for the treatment of carotid stenosis was established in June 2004. A neurologist assessed all patients to determine indication and mode of carotid revascularization. High-risk subjects, as defined by current guidelines, were pretreated by dual antiplatelet therapy and referred to CAS which was performed by an interventional cardiologist using a protective device. Patients were thoroughly examined by a neurologist immediately post-procedure and transferred to the stroke unit where they were managed until discharge. Follow-up was performed at the stroke outpatient clinic.

Results: Over a 5-year period 238 procedures of CAS in 216 patients were performed. Age ranged from 40 to 92 (69±9) years; 75% were male. 23 patients (10%) were octogenarians, 36% were symptomatic, 20% had severe contralateral stenosis, 45% had significant cardiac disease. The risk of any stroke or death at 30-days was 3.8% and of major stroke or death 2.9%. There was no stroke or death among patients <60 years. Risk of any stroke or death was 3.4% for 60-79 year old patients, and 12.5% for octogenarians. Among non- octogenarians risk for all stroke or death was 2.9% among symptomatic patients and 2.8% among asymptomatic patients. Octogenarians had a > 5-fold increased risk of any stroke or death (OR= 5.0; 95%CI 1.2-21.3), only mildly attenuated after adjustment for symptom status (OR=4.2; 95%CI 0.9-19.0).

Conclusion: Carotid artery stenting is safe and efficacious when performed in a high-volume center using a multidisciplinary team approach, with excellent results in non-octogenarians, but a substantial complication rate in octogenarians.