Carotid artery stenosis is the cause of 20% to 25% of strokes. The risk of stroke depends upon the severity of the carotid stenosis. According to the NASCET trial, 75% to 94% stenosis is associated with a stroke risk of 27% in symptomatic and 18.5% in asymptomatic patients. Many RCTs have compared the safety and efficacy of CEA with that of CAS in treating carotid artery stenosis, producing conflicting results. The most recent and largest National Institutes of Health-sponsored trial (the Carotid Revascularization Endarterectomy vs. Stenting Trial [CREST]) enrolled both symptomatic and asymptomatic patients and excluded patients with previous disabling stroke or with atrial fibrillation. In contrast to other trials, only one kind of stent and embolic protection filter was allowed and rigorous training criteria were used to standardize operator skill. The rates of stroke, death, and myocardial infarction (MI) were lower than or equal to rates in previous trials for both CAS and CEA. CREST results showed that CAS and CEA were associated with similar rates of death and disabling stroke. In January 2011, the FDA’s Circulatory System Device Panel expanded the indications for CAS in standard-risk patients to include stenosis of ≥70% by ultrasound or ≥50% by angiogram combined with neurologic symptoms, and stenosis of ≥70% by ultrasound or ≥60% by angiogram in the absence of symptoms. In our institution, we performed CAS in 78 patients with stenosis of ≥70% by ultrasound or ≥60% by angiogram. 49 patients were asymptomatic (63%). In all procedures we used a filter wire for embolic protection. Within the 30-day periprocedural period we did not detect any major complication such as death, stroke or MI. In two patients we observed transient ischaemic attack.

In conclusion, carotid artery stenting is an equivalent alternative to carotid endarterectomy when patient age, anatomy, surgical risk, and operator experience are considered in the choice of treatment approach.

KEYWORDS: carotid stenosis, stroke, carotid artery stenting, carotid endarterectomy.

Literature