CONCLUSIONS Volumetric OFDI analysis confirmed significantly less NIH after PES implantation compared with BMS in the SFA. EVT with DES decreases NIH that might associate with ISR.

CATEGORIES ENDOVASCULAR: Peripheral Vascular Disease and Intervention

KEYWORDS Endovascular therapy, Imaging, Peripheral arterial disease

BACKGROUND Carotid stenting (CAS) and endarterectomy (CEA) are strategies utilized to decrease the incidence of stroke among patients with atherosclerotic carotid artery stenosis, especially for symptomatic patients. In the short term CAS has a higher incidence of minor stroke while CEA has a higher incidence of cranial nerve palsy and myocardial infarction. Long term data efficacy data regarding these strategies are now available.

METHODS We evaluated all randomized controlled trials (RCT’s) comparing CEA and protected carotid stenting (CAS) with at least 12 months of follow-up to analyze the long term incidence of any stroke, major stroke and death. Statistical analysis was performed with Revman 5.3 software. When I2<25% fixed effect analysis was used, otherwise random effect analysis was used.

RESULTS The risk ratio for any stroke, major stroke and death were similar. The results remained unchanged when the analysis was limited to RCT’s including only symptomatic patients.

CONCLUSIONS In this meta-analysis of RCT data, CAS and CEA have a similar incidence of stroke and death during long term follow up.

CATEGORIES ENDOVASCULAR: Peripheral Vascular Disease and Intervention

KEYWORDS Carotid artery stenting, Carotid endarterectomy, Meta-analysis

BACKGROUND In randomized controlled trials (RCTs) about 5% of patients have significant cranial nerve injury that affect their quality of life scores following carotid endarterectomy (CEA). Recent data has demonstrated that these deficits persist over a month in 2/3 of the patients and over a year in 1/5 of the patients. These injuries are at least as disabling as a minor stroke. The epidemiology of cranial nerve injuries from CEA is of interest to clinicians and their patients being evaluated for CEA.

METHODS All RCTs comparing CEA and protected carotid stenting (CAS) were evaluated to compare the short term incidence of major stroke, total neurological deficits including any stroke and cranial nerve injury, myocardial infarct (MI) and death. We used Revman 5.3 software for statistical analysis. When I2<25% fixed effect analysis was used, otherwise random effect analysis was used.

RESULTS Major stroke and death were similar in both procedures but total neurological deficits and myocardial infarction were significantly more common in CEA. Specifically the risk ratio for any neurological deficits was 32% lower among CAS patients when compared to CEA patients (Figure. RR 0.68 CI95% 0.50-0.92, p=0.01).

CONCLUSIONS RCTs data have demonstrated that, CEA and CAS are similar with regard to the incidence of death or major stroke. However, CEA is more likely to result in neurological deficits defined as stroke or cranial nerve injury.