Conclusions: In ISR lesions, LSM tends to occur more often with BT than without BT. The mechanism is usually an increase in EEM (positive remodeling) greater than the increase in plaque.

Baseline (mm²) Follow-up (mm²) δ

Malapposed segment

Mean GSI 30.46±4.62 20.06±6.10 0.004
Mean Intrastent lumen 8.96±1.48 7.42±1.92 0.328
Mean Stent 8.69±1.89 6.77±1.83 0.424
Mean Plaque 11.75±3.79 12.63±4.26 0.11
Mean Effective Lumen 9.96±1.48 9.07±2.04 0.062

Contral segment

Mean EEM 19.92±4.34 20.95±5.08 0.248
Mean Lumen 7.05±1.54 6.48±1.15 0.091
Mean Stent 8.49±1.67 8.28±1.55 0.424
Mean Plaque 11.49±2.97 12.69±3.98 0.165

1129-174 The Volume of Embolic Particles Retrieved via Distal Protection is Similar With Either Occlusion Balloon or Filter, but Markedly Lower in Carotid Arterial Than Saphenous Vein Graft Interventions

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Objective: Characterize particulate retrieved from carotid artery interventions (CAI) and saphenous vein saphenous vein interventions (SVGI) either via a distal occlusion balloon or an embolic protection filter.

Methods/Results: Particulate from 3 CAI and 17 SVGI using embolic occlusion balloon protection (Percusurge, Medtronic/AVE) and 5 CAI and 47 SVGI using a braided nitinol filter (Medtronic/AVE) was analyzed for particle size and appropriate embolic volume using an automated computer imaging system (RapidVue, Beckman Coulter). The particle size distribution for all groups was nearly identical, with the majority being <49 mm in the longest dimension (Figures). The embolic volumes for CAI (2.79 mm³ for balloon, 2.72 mm³ for filter) were significantly smaller than for SVGI, using either a balloon or filter (10 mm³ for both). Histologic evaluation revealed similar composition.

Conclusion: Aggregate embolic volumes for similar interventions are equivalent regardless of whether balloon or filter protection is employed. However, CAI yield only approximately 20% of the embolic volume of SVGI with similar size distributions. Either SVGI lesions provide a larger embolic load, or carotid lesions are prone to incomplete embolization due to their size and location.

POSTER SESSION

1129 Carotid Stenting: Newer Devices and Different Adjunctive Pharmacological Regimens

Ederly Patients: A Single Center Experience

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Background: Carotid artery stenting (CAS) is an accepted treatment for carotid artery disease, and is particularly attractive in patients at high risk for surgical endarterectomy. Previous reports suggest that elderly patients are at high risk for significant complications during CAS.

Methods: A prospective database of all patients undergoing CAS at our institution was interrogated. All patients over 80 years old were evaluated. We reviewed hospital and outpatient records of all patients to confirm and complete the database. The primary endpoints evaluated were neurologic events during the hospitalization and at 30 days.

Results: 61 patients over 80 years old underwent 65 CAS procedures at our institution since July 1994. The mean age was 82.8 ± 2.8 years (range 80–95 years). All CAS procedures were performed on the right carotid artery and 33 on the left carotid artery. The mean stenosis was 90.6% ± 8.9%. There were 15 diabetics, 12 smokers, 39 hypertensives, and 53 mild hyperlipidemics. All patients had previously undergone coronary bypass surgery, and nine had previously undergone carotid endarterectomy. Ten patients had a prior myocardial infarction. Twenty-five patients were asymptomatic. In-hospital event rates for 61 CAS procedures (99.8%) were obtained, and follow-up at 30 days was available for 39 CAS procedures (60%). Two patients (3.5%) had events during the initial hospitalization, which were classified as minor strokes by a neurologist.