Modern Outcomes Of Redo CEA Are Worse Than Older Single Center Results Indicate: What Are The Implications For Treatment

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Recurrence Carotid Stenosis after CEA
- Risk for development of recurrent stenosis following CEA ranges from 5-15%
- Of these, 2-5% require repeat CEA

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Conflicts
- None

Previous Publications
- Single center studies
  - Jain '88-'05 (MSU)
  - Gagne '71-'90 (NYU)
- Low risk of perioperative stroke and complications

Previous Publications
- VSGNE – 2003 – 2012
  - Symptomatic – 3.9% stroke for redo CEA and 4.4% stent
  - Asymptomatic – 2.9% for redo CEA and 2% for stent
  - CNI – 5.2% vs. 4.7%

Objectives:
- Determine contemporary 30-day perioperative rates of stroke, MI, MACE, death
- Compare redo CEA outcomes with those of first-time CEA

Methods:
- ACS-NSQIP database 2005-2014
- 2 Cohorts: primary CEA and ipsilateral reoperative CEA >30 days following index procedure
Results
- 76,083 total patients
- 75.94% index CEA, 140 reoperative CEA
- Mean age: 70.8 ± 9.3 years
- 59.8% male
- Primary CEA:
  - 27.3% history of TIA
  - 15.4% history of CVA with neurological deficit
  - 9.1% history of CVA with no neurological deficit
- Redo CEA:
  - 29.2% history of TIA
  - 20.8% history of CVA with neurological deficit
  - 11.5% history of CVA with no neurological deficit

Conclusions
- Reoperative CEA vs primary CEA:
  - Increased operative time, perioperative stroke (5% vs 1.6%) and MACE (7.1% vs 3%)
  - No history of neuro event – 2.1% vs. 1.1%
  - Previous TIA/stroke – 10.4% vs. 2.3%
  - Consider alternatives such as medical management or carotid artery stenting

Case
- 80 F
- CEA 7 years ago
- 1 week of several “TIAs” per day – dysphagia and arm weakness
- MRI reveals stroke
- No symptoms on heparin drip
- Duplex – 80-99% ICA stenosis, CCA stenosis (75%), ECA occluded