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TITLE OF THE CONTRIBUTION:
Multicenter Experience on Eversion Versus Conventional Carotid Endarterectomy in Symptomatic Carotid Artery Stenosis: Observations From the Stent-Protected Angioplasty versus Carotid Endarterectomy (SPACE-1) Trial.

ABSTRACT:
BACKGROUND AND PURPOSE: Carotid endarterectomy (CEA) is beneficial in patients with symptomatic carotid artery stenosis. However, randomized trials have not provided evidence concerning the optimal CEA technique, conventional or eversion. METHODS: The outcome of 563 patients within the surgical randomization arm of the Stent-Protected Angioplasty versus Carotid Endarterectomy in Symptomatic Patients (SPACE-1) trial was analyzed by surgical technique subgroups: eversion endarterectomy versus conventional endarterectomy with patch angioplasty. The primary end point was ipsilateral stroke or death within 30 days after surgery. Secondary outcome events included perioperative adverse events and the 2-year risk of restenosis, stroke, and death. RESULTS: Both groups were similar in terms of demographic and other baseline clinical variables. Shunt frequency was higher in the conventional CEA group (65% versus 17%; P<0.0001). The risk of ipsilateral stroke or death within 30 days after surgery was significantly greater with eversion CEA (9% versus 3%; P=0.005). There were no statistically significant differences in the rate of perioperative secondary outcome events with the exception of a
significantly higher risk of intraoperative ipsilateral stroke rate in the eversion CEA group (4% versus 0.3%; \( P=0.0035 \)). The 2-year risk of ipsilateral stroke occurring after 30 days was significantly higher in the conventional CEA group (2.9% versus 0%; \( P=0.017 \)). CONCLUSIONS: In patients with symptomatic carotid artery stenosis, conventional CEA appears to be associated with better periprocedural neurological outcome than eversion CEA. Eversion CEA, however, may be more effective for long-term prevention of ipsilateral stroke. These findings should be interpreted with caution noting the limitations of the post hoc, nonrandomized nature of the analysis.