Credentialing of surgeons as interventionalists for carotid artery stenting: experience from the lead-in phase of CREST.

BACKGROUND: Credentialing of vascular surgeons to perform carotid artery stenting (CAS) continues to be a major issue confronting the specialty of Vascular Surgery. Cannulation of aortic arch branches, and placement of carotid antiembolic devices and stents constitute the major technical challenges to vascular surgeons becoming credentialed to perform CAS. The multicenter Carotid Revascularization Endarterectomy vs Stenting Trial (CREST), supported by the National Institute of Neurological Disorders and Stroke, National Institute of Health, reviews credentials of interventionalists, including surgeons, for the trial's "lead-in" phase of CAS to treat symptomatic (>50% stenosis) and asymptomatic (>70% stenosis).

METHODS: Vascular surgeons requesting participation in CREST must have achieved basic interventional credentialing criteria as recommended by the Society of Vascular Surgery. Each interventionalist is asked to submit notes and narrative summaries from a series of 10 to 30 CAS procedures for review by a multi-specialty review committee before being approved to participate in CREST. Thereafter, during the lead-in phase of CREST, each approved interventionalist is asked to perform CAS procedures using the study devices in as
many as 20 patients. In this interim report from the CREST lead-phase, the association of specialty of operator (vascular surgeon, neurosurgeon, other specialist) and periprocedural stroke and death rate was examined in patients undergoing CAS. In addition, current enrollment volume in the lead-in phase by specialty of the principal investigator was examined.

**RESULTS:** Thirty-two of 134 (23.9%) CREST-credentialed interventionalists are vascular surgeons (n = 22; 16.4%) or neurosurgeons (n = 10; 7.5%). For events monitored through March 31, 2004, 789 patients had undergone CAS procedures performed by these 134 specialists. Thirty-day stroke and death rate was 4.6%, and myocardial infarction was observed in 1.1% of patients. Serious adverse events have not been clustered at individual institutions, and no significant differences have been observed between vascular surgeons or neurosurgeons and other credentialed specialists.

**CONCLUSIONS:** Vascular surgeons with basic catheter and guide wire skills, particularly those who have incorporated diagnostic cerebral angiography into their practice, can be credentialed to perform CAS. Individuals or groups should devote a number of cases (n = 10-30 per surgeon) to CAS to accomplish this goal. Pending US Food and Drug Administration approval of devices and Center for Medicaid and Medicare Services reimbursement, institutional financial support for the performance of these procedures must be secured. The learning curve for CAS should not be considered so formidable as to discourage surgeons from adding these techniques of CAS to their procedural inventory.

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