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VASCULAR DISEASE

IN-HOSPITAL OUTCOMES OF CAROTID ARTERY STENTING IN PATIENTS WITH A CONTRALATERAL CAROTID OCCLUSION: ANALYSIS FROM THE CAROTID ARTERY REVASCULARIZATION AND ENDARTERECTOMY (CARE) REGISTRY

ACC Oral Contributions

Ernest N. Morial Convention Center, Room 244

Tuesday, April 05, 2011, 11:45 a.m.-Noon

Session Title: Peripheral Arterial Disease: Update and New Therapies

Abstract Category: 11. Peripheral Arterial/Carotid Disease/Aortic Disease

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Background: Contralateral carotid occlusion (CCO) is a predictor of adverse neurologic outcomes following carotid endarterectomy (CEA). The prevalence and outcomes of carotid artery stenting (CAS) in patients with CCO have not been well defined.

Methods: Using the ACC NCDR Carotid Artery Revascularization and Endarterectomy (CARE) registry, we compared the combined outcome of in-hospital death, non-fatal stroke and myocardial infarction in patients with and without CCO undergoing CAS. A CCO was defined as 100% occlusion of the patient's contralateral carotid artery. To further clarify the impact of the treated lesion's severity, we also stratified the analysis by patient symptoms.

Results: Between 05/2005 and 03/2010, 7640 patients underwent CAS and were enrolled in CARE. Of these, 791 patients (12%) had a CCO prior to the index procedure. Patients with CCO were younger (average 69 years vs. 71 years, $p<0.001$), more often male (68% vs. 60%, $p<0.001$), current smokers (80% vs. 73%, $p<0.001$), more frequently had neurologic events prior to the CAS procedure (56% vs. 46%, $p<0.001$), and more often had ejection fractions $\leq 30\%$ (16% vs. 11%, $p<0.001$). Patients with and without CCO had similar rates of the primary endpoint (35/791 [4.4%] with CCO; 315/6669 [4.7%] without CCO; adjusted OR 0.94 [95% CI 0.65-1.37], $p=0.76$). There were no differences between the CCO groups among asymptomatic patients with a carotid stenosis of 60-99% (3.8% vs. 2.8%; adjusted OR 0.78 [0.42-1.43], $p=0.42$); and among symptomatic patients with a carotid stenosis of 50-99% (6.0% vs. 6.1%; adjusted OR 1.06 [0.65-1.72], $p=0.81$).

Conclusion: Although more than 1 in 10 CAS procedures are done in the setting of CCO, there does not appear to be an increased risk for cardiovascular morbidity and mortality associated with CAS in these patients. Although careful patient selection may influence these results, performing CAS in this setting of CCO may be as safe as in a patient without CCO.