Letter to the Editor

Re Alarming Results for Carotid Artery Stenting in Patients with Contralateral Carotid Artery Occlusion

Thank you for the interest in our data. Although the 3-year stroke, Myocardial Infarction (MI), or death rates in the entire cohort of 49 patients was relatively high (18.4%), the majority of patients less than 75 years old had a stroke rate of 5% and a stroke-MI-death rate of 10.5% over 3 years. We agree that these data are not as good as carotid endarterectomy (CEA), but we stand by our conclusion that carotid artery stenting (CAS) in patients with contralateral carotid artery occlusion (CCO) is a safe and effective therapy.

The natural history of patients with CCO is not good. AbuRahma et al reviewed 82 patients that were treated with maximal medical therapy over a mean follow-up of 5 years; strokes occurred in 33% of patients and the combined neurologic event (Transient cerebral Ischaemic Attack (TIA)/stroke) rate was 60%.[1]

There remains controversy regarding the safety of CEA for patients with CCO. Baker et al reported that in the Asymptomatic Carotid Atherosclerosis Study, CEA in asymptomatic patients with CCO provided no long-term benefit and may have even been harmful; in patients with CCO, surgery was associated with a 2.0% absolute increase in risk (95% CI, 29.3%-5.2%).[2] These data suggest that CAS is reasonable to study in patients with CCO.

Our data shows that the stroke rate in elderly patients is higher than in younger patients (18% versus 5%), but this is consistent with previous reports.[3,4] Bonati et al reported short-term results pooled from the endarterectomy versus angioplasty in patients with symptomatic severe carotid stenosis, carotid stenting falls short of noninferiority versus endarterectomy (SPACE), and International Carotid Stenting Study; patients younger than 70 years and treated with carotid stenting had a 120-day risk of stroke or death of 5.8%, whereas patients 70 years or older had increased risk of 12.0%.[3] The Carotid Revascularization Endarterectomy versus Stenting Trial reported increasing stroke risk with age; compared to patients younger than 65 who had a 4-year stroke risk of 6.7%, patients 75 or older had a 4-year stroke risk of 13.1%.[4] Similarly, the mortality rate of patients younger than 65 was 6.6% whereas patients 75 or older had a rate of 18.2% in 4-year follow-up after CAS.[4]

In our data, the very small numbers of patients 75 years or older (n = 11) also suggests that the standard error of any absolute number is likely to be high; as such, the true event rate may very well higher for elderly patients, which would be alarming for CAS as Dr. Kosmas points out.[5] Since most elderly patients have numerous comorbid conditions that elevate procedural risk, we do not perform CEA frequently for patients with CCO in our center; nevertheless, CEA is safe and effective in our limited experience.[6] However, the small numbers of CEA prevent performance of statistical comparison with our CAS data.

In United States, an increasing proportion of patients with CCO are treated with CAS.[7] However, we agree that CAS might not be safer than CEA in patients with CCO since CCO might be a surrogate for greater atherosclerotic disease burden.[5,7] For all patients with carotid disease, including in the presence of CCO, the choice for treatment with either CEA or CAS is based upon standard principles of risk: benefit ratio that includes assessment of an individual's medical condition and long-term prognosis for stroke reduction; we believe that a surgeon who performs both procedures is best able to assess these risks to optimize selection of the procedure optimally suited for an individual patient.

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