Near-National Estimates of Disparities in Outcomes From Carotid Endarterectomy Between Hispanics and Other Race/Ethnic Groups


1Washington Hospital Center, Washington, DC, USA, 2Boston University School of Medicine, Boston, MA, USA, 3Hofstra University / Northwell Health, Hempstead, NY, USA, 4University of California, San Francisco, San Francisco, CA, USA.

Objective(s): Much of current national evidence on disparities in vascular surgery outcomes is limited to white-black comparisons with limited evidence on Hispanics, largely due to poor identification of Hispanics in national databases. Using a purposively developed database, capturing 85% of Hispanics in the United States, we sought to estimate morbidity in minorities undergoing carotid endarterectomy (CEA). 

Methods: Using inpatient discharge databases for 2010-2011 covering all hospitalizations across all hospitals in 14 states, we identified all hospitalizations for CEA. Race/ethnicity was reported for all but 1.2% of cases. Our main outcomes were myocardial infarction (MI) and stroke. Using logistic regression models, we estimated the relative odds of MI and stroke adjusted for age, sex, comorbidities, and hospital-level (bed size, procedure volume) and area-level (uninsured, poverty) characteristics.

Results: Overall, 83,281 CEAs were examined, with 7.0% and 4.4% of all patients comprising of Hispanics and blacks. Although, observed stroke rates for CEA was not different among Hispanics (0.4%), blacks (0.5%) and whites (0.3%, p=0.27), rate of MI was higher in blacks (1.0%) than in Hispanics (0.7%) and whites (0.6%, p<0.01). After adjustment for individual, hospital and area factors, the rate of MI for Hispanics (OR=1.09) and black (OR=1.14) and the rate of stroke for Hispanics (OR=0.96) and black (OR=1.03) were not significantly different when compared to whites (p>0.10).

Conclusions: Contrary to previous literature, we did not show worse outcomes for Hispanics or blacks after adjusting for covariates. Future studies should investigate the role of other patient severity and provider factors.