BACKGROUND

Few studies have examined the actual hospital arrival mode, emergency department (ED) care processes, and outcomes in Hispanic vs non-Hispanic acute ischemic stroke (AIS) patients. We evaluated processes and prognosis by Hispanic ethnicity among AIS patients encountered in urban setting.

METHODS

We retrospectively reviewed prospectively-collected data on 1,117 AIS patients presenting within 12 hours of ictus to five hospitals in a tertiary-level stroke center network in San Diego, California. Variables of interest included pre-hospital factors, ED care processes, and favorable outcome (day-90 modified Rankin Scale [mRS] score of 0–1); all of which were adjusted for pre-specified covariates in a multivariable logistic regression model.

RESULTS

There were 192 Hispanic AIS patients (17.2% of cohort) encountered from June 2004 to March 2011. Hispanic patients were significantly more likely to be younger, female, and diabetic. Hispanic patients arrived by ambulance (vs other arrival modes) less frequently (adjusted OR .56; 95% CI: .38–.81), trended toward a longer time of stroke onset to treatment decision (351.6 vs. 320.02 minutes, \( P =.07 \)), and experienced a favorable day-90 outcome less often (adjusted OR .52, CI: .28–.96). However, for the day-90 outcome, there was no interaction between ambulance arrival and Hispanic ethnicity (\( P =.5614 \)).

DISCUSSION

Hispanic AIS patients in this study were less likely to arrive at the hospital by ambulance, and experienced half the odds of a favorable outcome compared to others. Strategies to boost ambulance utilization among Hispanic AIS patients and identify contributors to this worrisome outcome disparity are needed. (Ethn Dis. 2015;25[1]:19–23)

KEY WORDS: Strok e Race-Ethnic, Emergency Medical Services, Hispanic, Prognosis, Outcome, Thrombolysis, Prognosis, Health Services, Ambulance, Disparities

INTRODUCTION

Bridging racial-ethnic disparities in health care is a top public health priority. The Hispanic population of the United States, its fastest growing ethnic segment, is expected to double by 2050 to 132.8 million people, or 30.2% of the nation’s total population. This rapid growth is forecasted to have important public health implications given the less favorable health status of Hispanics compared to non-Hispanic Whites. Indeed, stroke outcomes in Hispanics appear to be worse than in non-Hispanic Whites (NHWs), especially at younger ages. While some of this difference can be attributed to traditional stroke risk factors such as a higher incidence of diabetes among Hispanics, access to, and use of medical care may also be contributors, since a telephone survey of a bi-ethnic community in Texas suggested that Hispanics would be less likely to call 911 for stroke symptoms, possibly leading to unnecessary delays in acute stroke treatment.

Few studies have specifically compared hospital arrival mode and emerg

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The objective of our study was to compare ambulance arrival, emergency department processes of care, and 3-month functional outcomes by Hispanic ethnicity among acute ischemic stroke patients encountered in an urban setting.

METHODS

We reviewed all code stroke calls from June 1, 2004 to March 31 2011, who were prospectively entered into an academic/tertiary stroke center database with an admission diagnosis of ischemic stroke. The database allows for collection of treatment times, sociodemographic, clinical, discharge and day-90 outcomes data on AIS patients presenting within 12 hours of ictus at six San Diego emergency departments for acute