Hypertension among Adult Asians in Los Angeles County: Findings from the Los Angeles County Health Survey

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BACKGROUND

Hypertension (HTN) is associated with morbidity and mortality from many diseases, including coronary heart disease, which is the leading cause of death in Los Angeles County.1

However, little is known about HTN in ethnic Asian subgroups, a rapidly growing population in the United States.2

OBJECTIVES

The primary objective of this study was to investigate the prevalence of HTN among adult (18 years or older) Asians in Los Angeles County.

The second objective of this study was to investigate the factors associated with HTN among Asians.

METHODS

Data are from the three most recent cycles of the Los Angeles County Health Survey (2005, 2007, & 2011), a population-based random digit dial telephone survey.

Interviews were conducted in English, Spanish, Mandarin, Cantonese, Korean, and Vietnamese, with one adult randomly selected from each household.

The final sample included 23,884 adults. Asians comprised 2,430 individuals in the sample (not including PIs). The comparison group included 20,892 Latinos, whites, or blacks. The remaining survey population consisted of 562 adults who identified as “other” races/ethnicities and were excluded from the study.

We classified individuals as having HTN if they gave a positive response to the following question: “Have you ever been told by a doctor or other health professional that you have high blood pressure or HTN?”

We conducted descriptive analysis to quantify the prevalence of HTN and other factors.

We performed multivariate logistic regression to examine the associations between HTN and demographic characteristics (age and gender), socio-economic status (education and federal poverty level), acculturation proxies (nativity, number of years living in the US, and language used most at home), body mass index, physical activity, smoking and drinking.

All analyses were conducted using Statistical Analysis System version 9.3 (SAS Institute Inc., Cary, NC).

RESULTS

1. Demographic characteristics of the Asian sample

This adult Asian sample (2,430) contains 53.9% females.

28.7% were 18-39 years old, 23.5% were 40-49 years old, 27.0% were 50-64 years old, and 20.6% were 65 years or older. The median age was 49.0 years old.

34.8% were Chinese, 19.3% were Korean, 13.0% were Filipino, 11.0% were Japanese, 6.9% were Vietnamese, 6.8% were South Asian and 8.2% were other Asian.

2. Trends in prevalence of HTN among Asians compared to other races/ethnicities

The age-adjusted prevalence of HTN was lower among Asians compared to other racial/ethnic groups in 2005. However, HTN increased by 32% among Asians, from 19.6% in 2005 to 25.9% in 2011. HTN prevalence did not increase among other racial/ethnic groups over this time period (Table 1).

Compared to other races/ethnicities, the age-adjusted prevalence of HTN among Asians was lower than that of blacks for all years, was higher than that of Latinos in 2005, but surpassed whites in 2007 and 2011.

3. Prevalence of HTN among Asian subgroups

Among Asian subgroups, the age-adjusted prevalence of HTN was the lowest among Vietnamese (19.6%), and was highest among Filipinos (34.0%) (Table 2).

The age-adjusted prevalence of HTN was significantly higher among Filipinos (p<0.05), compared to whites.

4. Factors associated with HTN among Asians

The prevalence of HTN among adults aged 65 years or older, with less than a high school education, who were living below poverty, current or former smokers, overweight or obese, and foreign born but lived in the U.S. for over 10 years (Table 3):

After adjusting for all covariates, Asian adults aged 40-49, 50-64, 65+ years were 2.7, 6.2, and 18.5 times more likely to report being diagnosed with HTN, compared with those aged 18-39 years.

Asian adults who lived below the federal poverty level were 1.6 times more likely to report being diagnosed with HTN than those with incomes at or above 200% of the federal poverty level.

Asian adults who were current or former regular smokers were 1.5 times more likely to report being diagnosed with HTN compared with occasional or non-smokers.

Asian adults who were low-to-moderate or non-drinkers were 2.0 and 1.9 times more likely to report being diagnosed with HTN, compared with heavy or binge drinkers.

Asian adults who were categorized as overweight or obese were 2.1 and 3.1 times more likely to report being diagnosed with HTN than their normal-to-underweight peers.

RESULTS (Continued)

CONCLUSIONS

The prevalence of HTN is rapidly rising among Asians in Los Angeles County.

Risk factors for HTN in ethnic Asian subgroups mirror those in the population at large.

Culturally sensitive approaches should be incorporated into evidence based interventions to prevent and control HTN.

LIMITATIONS

Data are cross-sectional and cannot be inferred causation.

Data are self-reported and therefore responses might be subject to recall bias.

The Los Angeles County Health Survey is primarily a landline survey. Thus, data does not represent individuals living in group quarters, such as nursing homes, college dormitories or jails.

SELECTED REFERENCES