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Letter to the Editor

Six times higher odds of coronary heart disease-related hospitalizations in Asian American and Pacific Islanders with a positive family history

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To the Editor,

We read with great interest the findings of the article by Wang et al. [1]. The authors have reported a 71% higher risk of clinical coronary heart disease (CHD) in British South Asian population with a family history as compared to those without. Lack of large-scale data on the subject in Asian-Pacific Islander (API) population of the United States (US) incited us to reinforce the evidence using the National Inpatient Sample (NIS) databases (2007–2014) [2]. We identified a nationwide cohort of API population and evaluated the risk of hospitalizations for CHD (Clinical Classification Software codes 100 and 101) with a positive family history (ICD-9 CM V17.3) using relevant diagnostic codes [3]. The multivariable analysis was performed using SPSS v22 (IBM Corp, Armonk, NY, USA) controlling for demographics, cardiac/extra-cardiac comorbidities, and prior infarction/revascularization.

A total of 20,859 (2.4%) patients [median age 60 (51–69) years, 70.1% male] had a family history of CHD out of total 858,451 CHD-related admissions [median age 73 (63–81) years, 58.9% male] among API adults from 2007 to 2014. The adjusted multivariable analysis revealed nearly six times higher odds of CHD-related admissions (Odds Ratio: 5.85, 95% CI: 5.70–6.01, $p < 0.001$) in API with a family history. There was a significantly greater surge in the risk of CHD in API population (485% vs. 71%) as compared to British Asians with a family history. Identifying genetic determinants of higher cardiovascular risk by sex and geography may help develop screening measures to diagnose subclinical/clinical CHD in high-risk yet understudied Asian population globally [4,5].

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