

140. Increased Risk of Cardiovascular Diseases in Adults With Allergic Disorders: A Population-Based Study

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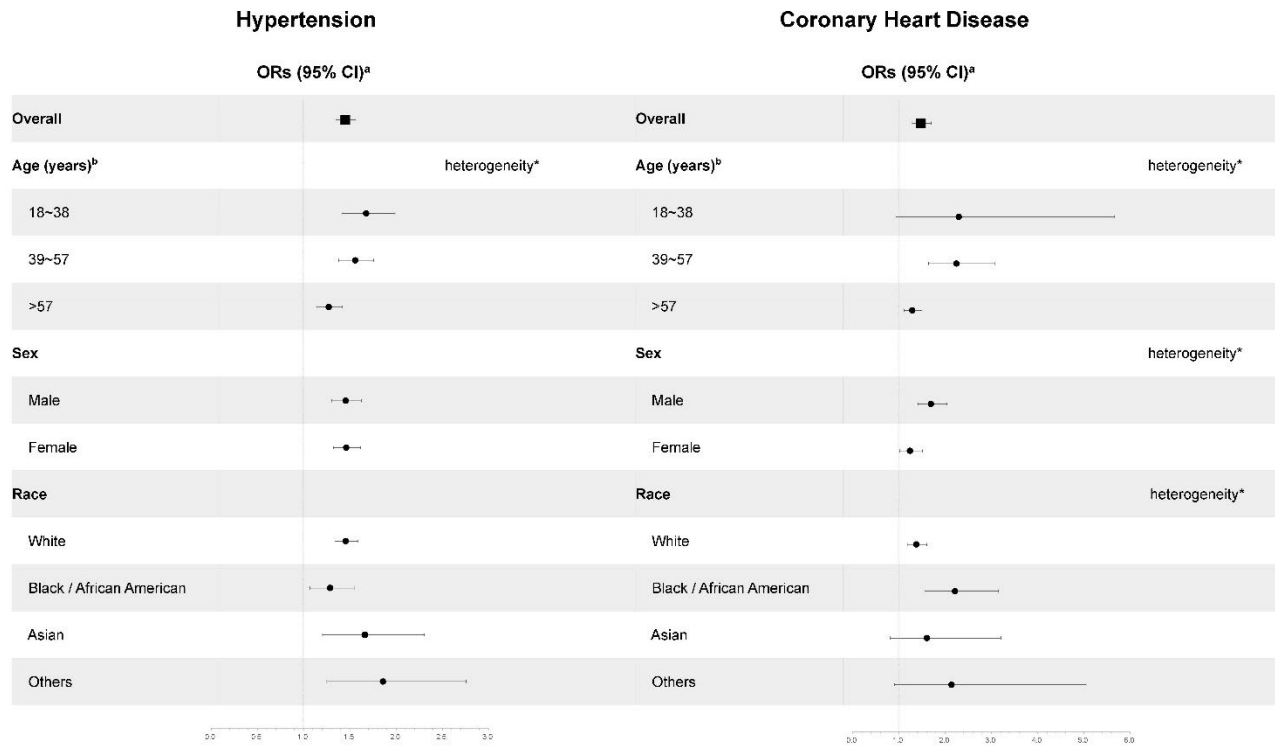
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Background: Recent studies suggest an association between allergic disorders and cardiovascular diseases (CVDs). However, the findings remain controversial. We aimed to determine whether adults with allergic disorders have increased cardiovascular risk.

Methods: This national population-based study used data from National Health Interview Survey (NHIS), which is a cross-sectional survey of the civilian noninstitutionalized population of US, administered by the National Center for Health Statistics (NCHS). For our study, data from the 2012 wave of NHIS were used. Adults with at least one allergic disorder, including asthma, respiratory allergy, digestive allergy, skin allergy and other allergy, were classified as the allergic group. The outcomes were hypertension and coronary heart disease (CHD). We used survey-weighted multivariate logistic regression to calculate odds ratios (ORs) and 95% confidence intervals (CIs) between allergic disorder and outcomes, adjusted for age, sex, race, smoking, alcohol drinking and body mass index. In addition, to determine whether the associations varied by participant characteristics, we examined the associations in subgroups stratified by demographic factors.

Results: We enrolled 34,417 adults, with a mean (SD) age of 48.5 (18.2) years and 19,187 (55.8%) women. Among them, 10,045 (29.2%) cases in the allergic group were identified. Overall, a history of allergic disorders was associated with increased odds of hypertension (OR=1.45, 95% CI: 1.35-1.56) and CHD (OR= 1.48, 95% CI: 1.29-1.70). The subgroup analyses by demographic factors showed that individuals with a history of allergic disorders aged 18~57 had higher risk of hypertension; for CHD, higher risk was observed among those aged 39~57, males and Black / African American (Figure). Furthermore, regarding specific allergic disorder, asthma contributed most to the risk for hypertension (OR=1.64, 95% CI: 1.42-1.89) and CHD (OR=1.42, 95% CI: 1.10-1.83).

Conclusion: Adults with a history of allergic disorders may have increased risk of hypertension and CHD. Physicians should evaluate and manage the potential risk of hypertension and CHD among allergic disease patients.



Clinical Implications: My study will help enable cardiovascular clinicians to add proper evaluation for patients with allergic disorders to manage risk factors of cardiovascular diseases and primary prevention.