

☆ **Young Investigator Awards Competition**

EPIDEMIOLOGY OF LIPOPROTEIN(A) AND ASSOCIATION WITH MYOCARDIAL INFARCTION AND STROKE IN A NATIONALLY REPRESENTATIVE COHORT

Oral Contributions
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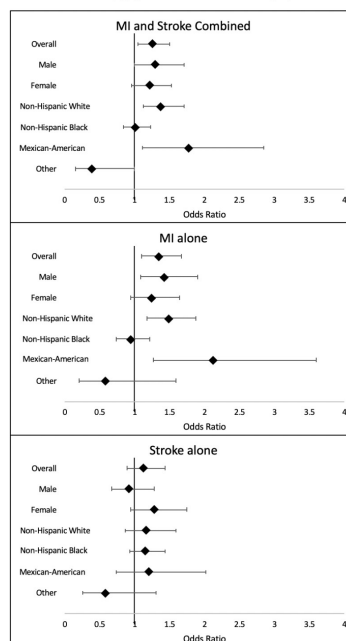
Background: The epidemiology and associations of lipoprotein(a) (lp(a)) with cardiovascular events in the general US population are unknown.

Methods: We used data from the third National Health and Nutrition Examination Survey (1988-94), a cross-sectional cohort. Lp(a) was compared across demographics. Associations with myocardial infarction (MI) and stroke were tested in univariate and multivariate logistic regression models, adjusted for sample weights and stratified by sex and race. Covariates included demographics, biomarkers (e.g. non-HDL-C), and clinical and social risk factors.

Results: Median lp(a) was 14mg/dL; interquartile range (IQR) 3,32. 13.9% (95% confidence interval (CI) 12.8%, 15.0%) had lp(a) >50mg/dL. Females had higher median lp(a) than males (15mg/dL; IQR 4, 33 vs. 12mg/dL; IQR 2, 30). Non-Hispanic Blacks had highest median lp(a) (35mg/dL; IQR 21, 63), followed by non-Hispanic Whites (12mg/dL; IQR 3, 29) and Mexican-Americans (8mg/dL; IQR 1, 22). Lp(a) was associated with combined MI and stroke (adjusted OR 1.26 per SD increase; CI 1.05, 1.50; p=0.01) and MI (1.35; CI 1.10, 1.67; p=0.004) but not stroke alone (1.13; CI 0.89, 1.43; p=0.32). See figure for results by sex or race.

Conclusion: In a first-time report of lp(a) levels in a nationally representative US cohort, 1 in 7 had lp(a) >50mg/dL. Lp(a) was associated with combined MI and stroke and MI across sexes and all races, but not stroke alone. Outcomes varied by sex and race. Lp(a)-associated risk should consider sex and race.

Figure: Odds ratio for MI or stroke combined, MI alone, or stroke alone per standard deviation increase in lp(a) by sex and race in multivariate fully adjusted models



Note: Error bars represent 95% confidence intervals.