



Prevention

LOW DOSE ASPIRIN FOR PRIMARY PREVENTION OF CARDIOVASCULAR DISEASE: USE PATTERNS AND IMPACT ACROSS RACE IN THE SOUTHERN COMMUNITY COHORT STUDY

Poster Contributions
Poster Hall, Hall A/B
Monday, March 12, 2018, 9:45 a.m.-10:30 a.m.

Session Title: Smells Like We're on to Something: Prevention Potpourri
Abstract Category: 32. Prevention: Clinical
Presentation Number: 1303-406

Authors: *Rodrigo Fernandez-Jimenez, Jacqueline Latina, Roger Hajjar, Valentin Fuster, Thomas Wang, William Blot, Icahn School of Medicine at Mount Sinai, New York, NY, USA, Vanderbilt University School of Medicine, Nashville, TN, USA*

Background: There are little data on the role of aspirin for primary prevention of cardiovascular disease (CVD) in racial groups. Our objective was to study the association between aspirin use patterns and CVD incidence by race in the Southern Community Cohort Study.

Methods: A total of 44,177 adults (mean age 52.2 ± 8.6 years, 66.6% female, 67.4% blacks and 32.6% whites) with no history of CVD enrolled from 2002 through 2009 were followed for a median of 9.2 years. At cohort entry, the simplified 10-year Framingham risk was calculated, and data related to aspirin use and other socioeconomic covariates collected. Race-specific adjusted odds ratios (aOR) for aspirin use and hazard ratios (aHR) for first major adverse cardiac event (MACE) were estimated by using multivariate logistic and Cox regression models.

Results: Blacks were less likely to take aspirin as compared to whites (aOR 0.80; 95% CI 0.76-0.84). Incidence rates of MACE were 8.23 (95% CI 7.73-8.75) vs. 6.85 (95% CI 6.55-7.17) per 1000 person-year in whites and blacks, respectively. Overall, aspirin use was associated with increased MACE (aHR 1.22; 95% CI 1.12-1.33). Notably, in the group of high risk individuals aged 50 to 69 years, aspirin use was associated with significantly increased first MACE in blacks, especially in women, but not in whites (Table).

Conclusion: Blacks were less likely to take aspirin for primary prevention of CVD. Aspirin use was associated with an increased incidence of MACE, more so in blacks than whites in this high-risk population.

Table. Hazard ratios and 95% confidence intervals for first cardiovascular event (myocardial infarction/bypass or cardiac death) among participants in the Southern Community Cohort Study according to low dose aspirin use.

	White	White Women	White Man	Black	Black Women	Black Man
<i>All CV risk, all ages</i>	n= 14,415	n= 9,829	n= 4,586	n= 29,762	n= 19,609	n= 10,153
Low dose aspirin	1.15 (1.00-1.32)	1.17 (0.97-1.40)	1.10 (0.88-1.38)	1.26 (1.12-1.41)	1.29 (1.12-1.48)	1.20 (0.99-1.47)
No low dose aspirin	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
<i>High CV risk, all ages</i>	n= 9,185	n= 5,123	n= 4,062	n= 20,126	n= 10,992	n= 9,134
Low dose aspirin	1.09 (0.94-1.27)	1.13 (0.93-1.38)	1.04 (0.83-1.31)	1.26 (1.11-1.42)	1.28 (1.10-1.49)	1.22 (1.00-1.49)
No low dose aspirin	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
<i>High CV risk, 50-69 yr.</i>	n= 6,381	n= 3,779	n= 2,602	n= 12,299	n= 7,637	n= 4,662
Low dose aspirin	0.98 (0.82-1.18)	1.00 (0.79-1.28)	0.97 (0.73-1.29)	1.27 (1.10-1.47)	1.32 (1.10-1.58)	1.21 (0.95-1.54)
No low dose aspirin	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
<i>High CV risk, 50-59 yr.</i>	n= 3,734	n= 2,141	n= 1,593	n= 8,530	n= 5,040	n= 3,490
Low dose aspirin	0.96 (0.75-1.23)	0.97 (0.70-1.34)	0.96 (0.66-1.40)	1.44 (1.20-1.71)	1.53 (1.23-1.91)	1.30 (0.97-1.74)
No low dose aspirin	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.

Hazard ratios and 95% confidence intervals for first cardiovascular event (myocardial infarction/bypass or cardiac death) after stratified Cox proportional hazard models. All models were adjusted by Framingham risk score, age, diabetes mellitus, household income, and gender if otherwise were not considered as stratification variables. Results are presented for the overall study population (all risk, all ages), and in high risk (≥10% Framingham) participants by race both for any age or according to current guideline recommendations on low dose aspirin use for primary prevention of cardiovascular disease (50-59 and 50-69 years of age).