Comparative Frequency of Angiographic Coronary Artery Disease in African Americans and Hispanics

Background: African Americans and Hispanics are the two largest racial minority groups in the United States. Both groups have a high prevalence of cardiovascular disease risk factors, and African Americans have the highest mortality from cardiovascular disease of any racial group in the United States. Whereas a large body of clinical data compares African Americans and Whites or Hispanics and Whites with regard to coronary artery disease (CAD), limited data are available for such comparison between African Americans and Hispanics.

Methods and Results: We retrospectively reviewed the angiographic and clinical data of 480 consecutive patients who underwent coronary angiography for suspected CAD in an inner city hospital between January 1997 and December 1998 in order to ascertain the frequency of CAD. One hundred eighty-nine (189) African Americans and 163 Hispanics met the inclusion criteria. The mean ages of African-American and Hispanic patients were similar, 56.3 ± 10.9 years vs 55.6 ± 11.4 years, respectively, \( P = .59 \). The frequency of angiographic CAD was 56.6\% for African Americans and 54.6\% for Hispanics, odds ratio (OR) 0.92, 95\% confidence interval (CI) 0.60–1.41, \( P = .71 \). Coronary artery disease (CAD) involving the left anterior descending coronary artery occurred significantly more in Hispanic compared to African-American patients (44.8\% vs 33.7\%, OR 1.58, 95\% CI 1.03–2.44, \( P = .04 \)). Coronary artery disease (CAD) risk factors occurred more in Hispanics compared to African Americans.

Conclusion: The frequency of angiographic CAD was not different for African-American and Hispanic patients (56.6\% vs 54.6\%, OR 0.92, 95\% CI 0.60–1.41, \( P = .71 \)) even though differences were seen in CAD risk factors. (Ethn Dis. 2006;16:58–63)

Key Words: African Americans, Coronary Artery Disease, Ethnicity, Hispanics, Race

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INTRODUCTION

African Americans and Hispanics have a high prevalence of risk factors for coronary artery disease (CAD).\(^1\) African Americans have the highest overall mortality from cardiovascular diseases, including CAD, than any other race in the United States.\(^1\) Mortality from coronary heart disease is also higher for African Americans and Hispanics compared to Whites.\(^1-3\) Such disparities in cardiovascular disease morbidity and mortality have been reviewed in several published reports that compared the prevalence of risk factors for CAD, severity of angiographic CAD, and morbidity and mortality from CAD between African Americans and Whites and between Hispanics and Whites.\(^3-11\) Despite the potential to contribute to an understanding of the differential impact of cardiovascular risk factors on cardiovascular disease prevalence among two of the nation’s largest minority populations, such comparative data are lacking for African Americans and Hispanics. We therefore reviewed the clinical and angiographic data of consecutive patients referred for coronary angiography for suspected CAD in order to determine the differences in the distribution of risk factors for CAD and to compare the frequency of significant angiographic CAD between African Americans and Hispanics.

METHODS

We retrospectively reviewed the medical records and angiographic data of a consecutive series of African-American and Hispanic patients who had coronary angiography performed for suspected CAD from January 1997 to December 1998 in the cardiac catheterization laboratory of an urban teaching hospital in the United States. The patients were \( \geq 18 \) years of age and were referred for coronary angiography for suspected CAD. Prior to cardiac catheterization, each patient was evaluated by a physician who documented the medical history, in-