

ELASTICITY OF SMALL ARTERIES IN AFRICAN AMERICANS IS LOWER THAN THAT FOUND IN CAUCASIANS

Studies have shown that people with high blood pressure have already suffered some damage in their blood vessels by the time their high blood pressure is discovered. Because African Americans can have higher blood pressure than Caucasians, we thought that the arteries of African Americans would be less elastic than those of Caucasians.

To prove this point, we studied more than 6000 participants of the Multi-Ethnic Study of Atherosclerosis (MESA), a large study of Caucasians, African Americans, Chinese and Hispanics who did not have heart disease. We measured both blood pressure and the elasticity of the arteries to better understand possible damage. Arterial

blood pressure was measured with a blood pressure cuff at the elbow. The pulse wave was assessed at the wrist. From these measures and using a computer, we could find out the elasticity of the small and large arteries.

Arterial elasticity decreased steadily with age. We found that the elasticity of the large arteries was not different among the four groups we studied. In contrast, the elasticity of the smaller arteries was lowest in the African Americans followed by Hispanics, even when their blood pressure was taken into consideration. The elasticity of the small arteries in the Chinese and the Caucasians was higher.

A reduction of the small artery elasticity in the African Americans and

Hispanics may indicate that they are at greater risk to develop heart and blood vessel disease even if they have not developed high blood pressure. Measuring the elasticity of the large and the small arteries can provide information about blood vessel health beyond the information we get with blood pressure measurements.

SOURCE: Race/Ethnic and Sex Differences in Large and Small Artery Elasticity – Results of the Multi-Ethnic Study of Atherosclerosis (MESA)

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THE WIDENING GAP OF DIABETES BETWEEN AMERICAN INDIAN/ALASKA NATIVE YOUNG ADULTS AND NON-HISPANIC WHITE YOUNG ADULTS

Diabetes is a disease that affects people of all ages; recent studies have reported increased prevalence of diabetes in American Indian / Alaska Native (AI/AN) children and young adults. Young adults diagnosed with diabetes at age 20 are anticipated to lose on average approximately 17 potential years of life.

In this study, we build on the previous findings of increased diabetes prevalence (or occurrence) among AI/AN young adults, by studying the rate diabetes increased from 1994 to 2007. We were interested to find out if the difference in diabetes rates between AI/AN and non-Hispanic White young adults had widened from 2001 to 2007.

During 1994–2007, annual prevalence estimates for both racial groups increased. Beginning in 2001 we found a widening in the disparity in the annual prevalence estimates of diagnosed diabetes between AI/AN and non-Hispanic White young adults. American Indian / Alaska Native young adults, on average, were 1.7 times more likely than non-Hispanic White young adults to be diagnosed with diabetes during 1994–2000 and 2.5 times more likely during 2001–2007.

Recommendation: To counter the increasing trend in diabetes prevalence among AI/AN young adults, public health partners, school districts, religious institutions, and civic organiza-

tions that serve AI/AN communities should continue to implement diabetes prevention strategies that promote moderate weight loss, high-fiber and low-fat diets, and an increase in leisure-time physical activities. Available resources include health promotion material from the National Diabetes Education Program, a joint program of the CDC and the National Institutes of Health. In addition, the Indian Health Service supports 399 grant programs through the Special Diabetes Program for Indians to treat and prevent diabetes. AI/AN adults who are likely to have diabetes also should be identified through diabetes screening procedures. The American Diabetes Association recommends

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diabetes screening every 3 years for AI/AN adults who are overweight and aged <45 years and for all adults aged \geq 45 years.

SOURCE: Trend Analysis of Diagnosed Diabetes Prevalence among American Indian /Alaska Native Young Adults — United States, 1994–2007

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HOW STRESSFUL EVENTS AFFECT ARAB AMERICANS HEART HEALTH

How an individual's blood pressure and heart rate change in response to stress has been linked to heart disease. It has been suggested that blood pressure increases (reactivity) to stressful events, and slower blood pressure recovery from the events, may lead to later high blood pressure and heart disease. It has also been suggested that chronic stressors, such as discrimination, may lead to greater reactivity and slower recovery from brief stressors. In addition, how a person responds to stressors may depend less on what the event is, and more on whether the person believes the event is either threatening or stressful.

Not only do ethnic minorities have greater rates of heart disease than Whites, they are also exposed to discrimination as a chronic stressor. Therefore, researchers have examined blood pressure responses among ethnic groups as a possible risk factor for heart disease. To date, research with minorities, mostly African Americans, has generally shown increased blood pressure reactivity and slowed recovery in response to stressful events compared to Whites. Blood pressure responses to

stressful events have not been studied in Arab Americans. This is surprising because Arab Americans also show relatively higher rates of heart disease and are exposed to discrimination like African Americans. Therefore, our study investigated blood pressure and heart rate responses to stress in a sample of Arab Americans.

Our study included 27 Arab Americans and 27 Whites who were matched for age and sex. Information on each participant's heart rate and blood pressure was collected every 90 seconds while they completed two different stressful tasks. The first task had participants solving simple arithmetic problems while being pressured to improve performance to increase their stress. The second task had participants talk about a stressful time in their lives and was more emotionally challenging than the arithmetic. After each task, participants rated how threatening and stressful they thought the task was.

Results showed that, compared to White participants, Arab Americans had higher scores of both stress and threat for the arithmetic task, and higher scores of

threat for the recall task. Despite their greater sense of threat and stress, there was not a difference in blood pressure or heart rate response to the arithmetic task between Arab Americans and Whites. However, for the recall task Arab Americans actually showed less reactivity than Whites. As expected, Arab Americans did show slower heart rate recovery than Whites. Although cardiovascular reactivity appears to be a risk factor for heart disease for African Americans, our unexpected results suggest that reactivity to stressful events may not pose the same type of health risk for Arab Americans. Delayed recovery for Arab Americans, however, may still be problematic. More research is needed to understand heart disease risk for Arab Americans. With a better understanding, preventative measures can be taken with Arab Americans to reduce the high rates of heart disease.

SOURCE: A Preliminary Investigation of Cognitive Appraisal and Cardiovascular Reactivity and Recovery in Arab Americans

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LITTLE EDUCATION AND LOW INCOME ARE MORE ASSOCIATED WITH DIABETES THAN ETHNICITY

The American Diabetes Association (ADA) considers race/ethnicity to be a risk factor for diabetes. That is, if you are a minority, you are at increased risk of having or getting diabetes. However, minorities in the United States are often at socioeconomic disadvantage com-

pared to Whites. That is minorities are often poorer and less well educated than Whites. We suggest that it is this socioeconomic disadvantage that increases the risk of diabetes, not race/ethnicity.

We interviewed 5503 Boston, Massachusetts residents between 2002 and 2005

about their health. We had 2301 men and 3202 women, of which 1767 were non-Hispanic Black, 1877 were Hispanic, and 1859 were non-Hispanic White participants. We scored each participant on their level of socioeconomic status (SES), using three levels: lower, middle, and upper.

Other risk factors for diabetes include high blood pressure, low levels of physical activity, obesity (weighing too much for your height), diabetes when pregnant, and family history of diabetes. We found that those of lower SES were more likely to have high blood pressure, have had gestational diabetes (if they were female and had been pregnant), to be obese, and to have low levels of physical activity. This was true overall and within each race/ethnic group. White respondents (but not minority respondents) of lower SES were more likely to have a

family history of diabetes (one of their parents, or siblings, or children have diabetes). Therefore, it is not surprising to find that those of lower SES are also more likely to have diabetes. This was true for each race/ethnic group. Two to three times as many people of lower SES have diabetes than those of upper SES. Within a level of SES, there is no statistical difference in the proportion of people who have diabetes by race/ethnicity.

After considering all the factors, race/ethnicity had little association with diabetes. We concluded that while

minorities are more likely to have diabetes than Whites, it is their socioeconomic disadvantage that is associated with diabetes (and other known risk factors such as obesity and low levels of physical activity) rather than their race/ethnicity.

SOURCE: Disparities in the Prevalence of Diabetes: Is it Race/Ethnicity or Socioeconomic Status? Results from the Boston Area Community Health (BACH) Survey

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SYSTEMIC LUPUS ERYTHEMATOSUS MORE SEVERE IN NON-CAUCASIANS AND HISPANICS

Systemic lupus erythematosus (SLE) is a disease that occurs when the body's immune system attacks its own cells. It is called an autoimmune disease. SLE can affect any area of the body. The aim of this study was to find out if factors like age, ethnicity, and insurance are connected to SLE. From 1999–2005, there were 65,535 patients hospitalized in North Texas with at least one of 21 autoimmune diseases. Of all patients, 14,829 (23%) were hospitalized with SLE, making it the second most common autoimmune disease behind rheumatoid arthritis. Of all patients, 90% were female, more than half of SLE patients were Caucasian (53.5%), more than one-third were African American (35.6%), and 12% were Hispanic.

Severity of disease was measured with the SLE Comorbidity Index (SLE CI), which gives a total score for the following health conditions: HIV/AIDS, any cancer, cancer that has spread, stroke, kidney failure, heart failure, diabetes, kidney problems, heart attack, swelling of heart

tissue, problems with leg and arm blood vessels, swelling of lung tissue, severe liver disease, and low platelet count.

When compared to patients with other autoimmune diseases, those with SLE were more likely to be younger and were more than five times as likely to have many autoimmune diseases. Patients who were non-Caucasian or Hispanic were more likely to have more severe SLE. When looking at patients' insurance coverage, more than one-third of Hispanic patients with SLE were on Medicaid or self-pay and were more likely to have higher disease severity. Also, nearly 25% of non-Caucasian patients were on Medicaid or self-pay. This presents a major concern because patients with Medicaid or no health insurance may not receive ongoing medical care to better manage SLE, thus increasing the potential for hospitalization with health problems.

Patients with SLE were more than three times as likely to have kidney

problems, kidney failure, and swelling of heart tissue, and were more than two times as likely to have swelling of lung tissue. They were also more likely to have heart failure, stroke, heart attack, and narrowing of leg and arm vessels. Non-Caucasian SLE patients were more likely to have kidney failure, kidney problems, heart failure, swelling of heart tissue, and swelling of lung tissue. Hispanic SLE patients were more likely to have kidney failure and kidney problems. Younger SLE patients were more likely to have swelling of lung tissue, swelling of heart tissue, kidney problems, and kidney failure. Because certain groups may be more susceptible to kidney, heart, and respiratory problems, it is important for physicians to be aware of these differences.

SOURCE: The Impact of Race and Ethnicity on Disease Severity in Systemic Lupus Erythematosus

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MEXICAN AMERICANS LESS LIKELY TO BE SCREENED FOR CANCER COMPARED TO WHITES

Mexican Americans are the largest subgroup of Latinos in the United

States. Compared to Whites, they are less likely to get screening for colorectal

cancer (CRC). They are also more likely to be diagnosed with colorectal cancer at

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a later stage and then have a lower survival rate. It is important to understand why Mexican Americans are less likely to be screened for colorectal cancer.

Our study sample included 1,529 Mexican American and 16,775 White men and women who were aged 50 and older from the 2005 California Health Interview Survey. We found that 43% of Mexican Americans never had CRC screening compared to 22% of Whites. This was due in part to their proficiency in using the English language. After adjustment for income and education status, healthcare access, health access, and other health behaviors, those with

limited English proficiency (LEP) were 1.7 times more likely to never have had the tests compared to those who spoke English well. In addition, compared to Whites, Mexican Americans were more likely to indicate that the test was not recommended, they didn't know they needed the test, and that they had difficulty understanding their doctor.

Our results suggest that decreasing language barriers are an important way to address health disparities among Latinos. Methods for decreasing language barriers include using universal, graphic signage in clinical settings, hiring bilingual and interpreter staff, translating

forms, documents, and health promotion brochures into Spanish, and publicizing and widely offering free English as a second language education in community settings. Continued research to understand and reduce language barriers may substantially reduce disparities in CRC screening, morbidity, and mortality.

SOURCE: Colorectal Cancer Test Use among Californians of Mexican Origin: Influence of Language Barriers

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