

Black women with SLE develop cardiovascular disease at early age

August 19 2010

A recent study by researchers at Penn State College of Medicine found significant racial disparities in the age of systemic lupus erythematosus (SLE) patients at the time of hospital admission for cardiovascular disease (CVD) events and CVD-related death. Black women were youngest to both be admitted with CVD and to have an in-hospital death due to CVD. Results of the study appear in the September issue of *Arthritis & Rheumatism*, a journal published by Wiley-Blackwell on behalf of the American College of Rheumatology.

Lupus is a chronic autoimmune disease where the body's own immune system attacks healthy cells and tissues, causing inflammation, extreme fatigue, joint pain, and organ damage. According to the Lupus Foundation of America approximately 1.5 million American in the U.S. have some form of lupus, with SLE representing 70% of all cases. In those patients with SLE, [cardiovascular disease](#) is a major cause of illness and mortality with recent studies suggesting 36% of all SLE-related deaths are attributed to ischemic heart disease

Using data from the Health Care Utilization Project (HCUP) Nationwide Inpatient Sample (NIS) database, Lisabeth Scalzi, M.D., M.S., and colleagues analyzed all adult (18 years of age or older) patient records between 2003 and 2006. After eliminating records without complete demographic information, the research team identified 90,444 hospitalizations for SLE patients and roughly 19 million for subjects without SLE. Of those with SLE, 89% were women, compared with 61% in the non-SLE population. The racial composition of the SLE

group was: 55% white, 28% black, 12% Hispanic, 2% Asian, and 3% other.

The team noted 3,627 admissions for acute CVD among female SLE patients with a mean age of 60.8 years. In female patients without SLE who were admitted with CVD the mean age was 71.3 years. Black women were the youngest to experience a CVD event—53.9 years for those with SLE and 65.8 for those without the disease. "In female SLE patients, we found a 9.6 year difference in age difference at time of hospitalization for CVD between black patients and white patients (mean age-63.5 years)," said Dr. Scalzi.

This is also the first known study to compare age at the time of CVD and CVD-related death in men with SLE to those without the disease. There were 805 male SLE patients who were admitted due to a CVD event with black or Hispanic patients being the youngest. Results indicate that men with SLE were 5.5 years younger than men without SLE at the time of admission for CVD and 11 years younger at the time of in-hospital death due to CVD.

Additionally, research showed there were 218 admissions of women with SLE where in-hospital death was attributed to a CVD event. In this group, black women were also youngest (mean age of 52.8 years) at the time of death compared with other racial groups (mean ages for white-67.1 years; Hispanic-62 years; Asian 63.8 years). Dr. Scalzi noted, "More than half of the black women with SLE who died of CVD were younger than 55 years of age. Most startling was the vast age difference between patients with SLE and their age-matched controls at the time of CVD-related death: black women with SLE were almost 20 years younger than black women without SLE (52.8 versus 72.6 years of age)."

The authors suggest that many traditional CVD risk factors (smoking, obesity, high cholesterol) are modifiable and active risk factor

management should target women with SLE. Of particular concern is identification of young black and Hispanic SLE patients who are of greatest risk. "Studies in ethnically diverse lupus populations are warranted to examine the success in addressing risk factor management and barriers that may hamper effective management efforts," concluded Dr. Scalzi. "Prescription habits, adherence to prescribed therapy, awareness of heart attack warning signs, and appropriate management of acute CVD events should also be examined for any [racial disparities](#)."

More information: "Racial Disparities for Age at Time of Cardiovascular Events and Cardiovascular-Related Death in Patients with Systemic Lupus Erythematosus." Lisabeth V. Scalzi, Christopher S. Hollenbeak, and Li Wang. *Arthritis & Rheumatism*; Published Online: May 6, 2010 ([DOI: 10.1002/art.27551](https://doi.org/10.1002/art.27551)); Print Issue Date: September 2010.

Provided by Wiley

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