PANEL SUMMARY: CARDIOVASCULAR DISEASE: HEALTH FACTORS AND RISK FACTORS— STATE OF THE SCIENCE, EMERGING PRIORITIES, PART 1: HYPERTENSION, LIPIDS, DIABETES

Malcom Taylor, MD
Jackson Cardiology Associates

Daniel Jones, MD
(Moderator), University of Mississippi

Anne Sumner, MD
National Institute of Diabetes and Digestive and Kidney Diseases,
National Institutes of Health

Keith Ferdinand, MD
Association of Black Cardiologists Inc.

Michael Steffes, MD, PhD
University of Minnesota

John Flack, MD
Department of Internal Medicine,
Wayne State University

SUMMARY

A five-member panel moderated by Jones, highlighted studies on lipids, insulin resistance, body mass index (BMI), visceral adipose tissue (VAT) and waist circumference, hypertension prevalence, awareness and control, and hyperglycemia. Sumner stated that the JHS can lead to enhanced prevention, earlier diagnosis and healthier hearts, and that the JHS can lead to improved diagnosis of insulin resistance-related conditions in African Americans and people of African descent worldwide. Using JHS data, one conclusion of her research on the ratio of triglyceride (TG)/high density lipid was that the TG-HDL cutoff is both race- and sex-specific.[1] In this study of BMI and waist circumference (WC), Sumner also concluded that BMI-WC and VAT-WC relationships are similar across African descent populations, but do not identify WC of risk.[1] She recommended that JHS data be used to close the gap of identifying the WC of risk in African descent populations.

To increase hypertension control, Ferdinand recommended the patient becoming a partner in his/her care via self-titration of anti-hypertensive medications. He further recommended that data from JHS be analyzed to define the rates of atrial fibrillation (AF), since Blacks have higher rates of risk factors, but lower rates of AF and higher rates of ischemic stroke. Additionally, Ferdinand recommended using social media sites (eg, Twitter, Facebook) to monitor cardiac risk.

In order to unravel the puzzling causes and consequences of hypertension, Flack challenged the JHS to link the pieces of the puzzle. He advocated linking diet and lifestyle with vascular phenotypes with mediators (vitamin D/biomarkers/ blood pressure) and moderators (genotypes) to subclinical CVD (eg, left ventricular hypertrophy) to morbid and fatal outcomes. This will require a high level of statistical expertise including structural equation modeling and other analyses. Additional areas of high scientific need that provide opportunities for the JHS include vascular phenotypes, ambulatory BP and the vitamin D/parathyroid hormone (PTH) connection.

Steffes discussed the challenge facing the JHS in terms of issues for hyperglycemia. He stated that African Americans have higher levels of hyperglycemia, which is accompanied by higher risk for macrovascular and microvascular complications. Currently, there are no discernible differences for why African Americans experience higher rates of hyperglycemia. He recommended that the JHS work to define these differences. From the practice perspective, Taylor stated that the JHS has highlighted the importance of risk factor identification and reduction in the AA community.

REFERENCES

1. Sumner AE, Harman JL, Buxbaum SG, et al. The triglyceride/high-density lipoprotein cholesterol ratio fails to predict insulin resistance in African-American women: an analysis of Jackson Heart Study. *Metab Syndr Relat Disord*. 2010;8(6):511–4. Epub 2010 Aug 17.