Plasma adiponectin concentrations and correlates in African Americans in the Hypertension Genetic Epidemiology Network (HyperGEN) study.

Submitted by arnett on Mon, 09/08/2014 - 11:00am

Title
Plasma adiponectin concentrations and correlates in African Americans in the Hypertension Genetic Epidemiology Network (HyperGEN) study.

Publication Type
Journal Article

Year of Publication
2007

Authors
Shikany, JM, Lewis, CE, Freedman, BI, Arnett, DK, Leiendecker-Foster, C, Jones, TL, Redden, DT, Oberman, A

Journal
Metabolism

Volume
56

Issue
8

Pagination
1011-6

Date Published
2007 Aug

ISSN
0026-0495

Keywords
Adiponectin, Adult, African Americans, Analysis of Variance, Body Mass Index, Cholesterol, HDL, Enzyme-Linked Immunosorbent Assay, Female, Humans, Hypertension, Insulin, Linear Models, Male, Sex Factors, United States

Abstract
Adiponectin has demonstrated insulin-sensitizing, antiatherogenic, and anti-inflammatory properties, and may be an important risk factor for coronary heart disease and diabetes. Relatively few previous studies of plasma adiponectin have included sizable numbers of African Americans. The objective of the study was to investigate plasma concentrations of adiponectin and correlates of these concentrations in African Americans. This was a cross-sectional analysis that took place within the Hypertension Genetic Epidemiology Network. This study included 211 normotensive offspring (aged 22-37 years) of hypertensive siblings recruited by the Hypertension Genetic Epidemiology Network Birmingham, AL, field center. In addition to measuring plasma adiponectin, demographic and lifestyle data were collected, and anthropometric, clinical, and laboratory measurements were obtained. Mean plasma adiponectin concentration was 5.5 +/- 3.8 microg/mL. Adiponectin was 55% higher in women than in men: 6.5 +/- 4.4 vs 4.2 +/- 2.5 microg/mL, respectively (P < .0001). In a multivariable analysis, high-density lipoprotein cholesterol concentration was positively associated and male sex and insulin concentration were negatively associated with plasma adiponectin concentration. Plasma adiponectin concentrations in these African Americans were lower than those reported in other racial/ethnic groups, including Japanese, whites, and Pima Indians. The directions of the
Plasma adiponectin concentrations and correlates in African Americans in the Hypertension Genetic Epidemiology Network (HyperGEN) study.

Published on UAB School of Public Health (http://www.soph.uab.edu)

DOI: 10.1016/j.metabol.2007.03.020
PubMed ID: 17618943
Grant List:
- U10 HL54471 / HL / NHLBI NIH HHS / United States
- U10 HL54472 / HL / NHLBI NIH HHS / United States
- U10 HL54473 / HL / NHLBI NIH HHS / United States
- U10 HL54495 / HL / NHLBI NIH HHS / United States
- U10 HL54496 / HL / NHLBI NIH HHS / United States
- U10 HL54497 / HL / NHLBI NIH HHS / United States
- U10 HL54509 / HL / NHLBI NIH HHS / United States
- U10 HL54515 / HL / NHLBI NIH HHS / United States

Associations of plasma adiponectin with other factors were in agreement with results in other racial/ethnic groups.