D3.4: Effect of obesity on CVD risk factors in African American women

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Abstract:

Introduction: The purpose of this pilot study was to examine the impact of obesity on the traditional and emerging cardiovascular disease (CVD) risk factors in African American Women (AAW) ages 18 to 45 who have no known history of CVD. The principal hypothesis of this study was that higher BMI is associated with higher levels of the traditional and emerging CVD risk factors. The study was guided by these research questions (1) describe the prevalence of the traditional and emerging CVD risk factors, (2) examine the relationship between BMI, physical activity levels, and other CVD risk factors and (3) compare traditional and emerging CVD risk factors among normal and obese weight groups.

Method(s): 48 AAW were recruited from the mid-south. Participants completed a demographic and 7-day Physical Activity Recall questionnaire. Anthropometric assessment of height, weight, BMI, waist circumference and waist-hip-ratio were determined and blood pressure. Fasting blood draws were used to determine dyslipidemia, diabetes, fibrinogen, hs-CRP, PAI-1, E-selectin, QUICKI, and sICAM-1. Normal values for lipids were based on ATP III guidelines. Values used for the emerging risk factors were from previous research. Analysis included descriptive statistics, t-test, chi-square, and Spearman's correlation analysis. Alpha level was set at 0.05.
Results: The most common traditional risk factor identified was physical inactivity (72.92%). Findings indicated that the obese group had a higher systolic blood pressure (p=0.0002) and diastolic blood pressure (p=0.0007), and lower HDL-c (p=0.01) and higher triglyceride levels (p=0.02) than the normal weight group. The obese group had significantly higher levels of hs-CRP (p=0.002) and fibrinogen (p=0.01) compared to the normal weight groups. Compared to the normal weight group, the obese group had significantly more CVD risk factors (6.9 vs. 4.1, p<0.05).

Discussion & Conclusions: Obesity is associated with a higher prevalence of both the emerging and traditional cardiovascular risk factors in AAW without a previous history of CVD. Physical inactivity is the most prevalent modifiable risk factor in this population. Focused intervention on obesity and physical inactivity could provide substantial reduction in CVD morbidity and mortality among AAW.

Abstract History: This abstract has not been presented or accepted for presentation in whole or in part at the SNRS or other scientific meeting.

Financial Disclosure: No, I (or a member of my immediate family) have not received something of value* from or own stock (or stock options) in a commercial company or institution related directly or indirectly to the subject of my presentation.

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