CORRELATION OF ANTHROPOMETRIC MEASURES OF OBESITY IN MIDDLE AGED ADULTS WITH RISK STRATIFICATION GROUPS BASED ON SHORT-TERM AND LIFETIME RISK FOR CARDIOVASCULAR EVENTS

ACC Poster Contributions
Ernest N. Morial Convention Center, Hall F
Sunday, April 03, 2011, 10:00 a.m.-11:15 a.m.

Session Title: Risk Reduction and Rehabilitation: Assessment Measures
Abstract Category: 17. Risk Reduction and Rehabilitation
Session-Poster Board Number: 1179-290

Authors: Aditya S. Bharadwaj, Ankit Rathod, Apurva Badheka, Rajeev Sudhakar, Vikas Veeranna, Hardik Doshi, Sony Jacob, Luis Afonso, Wayne State University/ Detroit Medical Center, Detroit, MI

Background: Short term and lifetime risk for cardiovascular event are two distinct tools in risk estimation. Although anthropometric measures of obesity have been shown to increase risk for cardiovascular disease, it has not been clearly elucidated as to how these indices correlate with short-term and life time risk.

Methods: We did a post-hoc analysis of the NHLBI Limited Access Dataset of MESA subjects between 45-50 years, and stratified them into 3 risk groups- low 10-year (<10%)/low lifetime (<39%) risk, low 10-year (<10%)/high lifetime risk (>39%), and high 10-year risk (>10%) or diagnosed diabetes mellitus (Figure). BMI (Body Mass Index), waist circumference and waist-hip ratio were used as markers of obesity.

Results: Mean BMI 28.5±5.7 kg/m2, mean waist circumference 95.7±15.19 cm and mean waist-hip ratio was 0.89±0.08. Mean age of the study group was 47±1.7 yrs, CRP-3.3±4.9 mg/L and 52% were females. Mean BMI, WC and WHR increased progressively across the 3 risk groups. Adjusted regression co-efficients also demonstrated linear relationship with increasing risk hierarchy (Figure).

Conclusion: Increasing obesity correlates with the progressive spectrum of cardiovascular risk profiling; from low short term/low lifetime risk to low short term/high life time risk to high short term risk.