Is the Current Cutoffs of Triglycerides and High Density Cholesterol a Useful Tool for the Definition of the Metabolic Syndrome in Non-Hispanic Blacks?

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Abstract

Blacks in the country suffer from higher prevalences of obesity, diabetes, hypertension and cardiovascular disease compared to whites. Paradoxically, they have the lowest prevalence of the Metabolic Syndrome (MS) compared to whites and Mexican Americans. This is likely due to the fact that blacks tend to have lower triglycerides (TG) and higher high density cholesterol (HDL) levels. We challenged the current lipid criteria established by the Adult Treatment Panel III for the detection of the MS and set out to find more appropriate TG and HDL cutoffs to detect the MS in blacks. Using data from the National Health and Nutrition Examination Survey from 1999-2006, we identified that a more appropriate TG cutoff for blacks to detect the MS is 110 mg/dL, but were not able to identify more suitable HDL cutoffs. Our results confirm that race/ethnic-specific criteria should be established for the detection of the MS across racial/ethnic groups.

Keywords: Risk analysis; ROC; Metabolic syndrome.

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