

Poster Session IV

Poster #11

HIV and Predictive Risk for General Cardiovascular Disease

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Purpose: HIV disease has become a chronic condition. With the prolonged life-span, an increased incidence of cardiovascular disease (CVD) has been reported. Cardiac risk factors such as hyperlipidemia, impaired glucose tolerance (IGT), insulin resistance (IR) and myocardial infarction have become prevalent in HIV. CVD in this population may also be due to non-traditional risk factors including accumulation of visceral fat, inflammation secondary to HIV infection, and effects of some anti-retroviral drugs. The aim of this study was to characterize the cardiovascular (CVD) risk factors of adults living with HIV and to estimate how well CVD risk factors predict the ten-year estimate for general cardiovascular risk profile score.

Theoretical Framework: The biopsychosocial model was used to guide this study to understand how the biological, psychological, and social factors impact CVD in HIV.

Methods: A cross-sectional study was conducted among an ambulatory HIV+, urban population to examine CVD risk factors. The evaluation included anthropometric measurements, estimated nutritional intake, physical activity, lipid profile, glucose level, HIV-related factors and traditional risk factors associated with cardiovascular disease. A ten-year estimate of general cardiovascular risk was calculated using the General Cardiovascular Risk Profile (GCRP) and the Office-Based Non-Laboratory Risk Profile (OBNLRP) developed from the Framingham Heart study. Predictors of GCRP and OBNLRP scores were evaluated using multinomial logistic regression.

Results: One hundred and twenty-three participants enrolled in the study. Approximately 25% of the sample was considered at high risk for developing CVD in the next ten years. Twenty-nine percent of the participants were obese, 51.2% had a waist circumference indicative of abdominal obesity, 33% met the clinical definition for metabolic syndrome and 67% were smokers. Waist circumference and duration of smoking were independent predictors for elevated GCRP and OBNLRP scores.

Conclusion and Implication for Practice: Similar to the general population, most of the identified risk factors were modifiable through lifestyle management, including dietary change, smoking cessation and increased physical activity. Measuring waist circumference during routine clinic visits can also assist with identifying patients at increased risk for CVD.