

Atherosclerotic Risk and Response to Exercise Intervention in HIV+ Children

Tracie L. Miller, MD, is the Principal Investigator of a National Heart, Lung and Blood Institute funded study titled “Atherosclerotic Risk and Response to Exercise Intervention in HIV+ Children”. The purpose of this study is to assess cardiovascular and metabolic risks in children and determine the effectiveness of an exercise program.

Since the introduction of highly active antiretroviral therapy (HAART), HIV disease in developed nations has transitioned from an almost uniformly fatal illness to a chronic disease with therapies now targeted toward indefinite viral suppression. Although certain cardiovascular risk factors, such as hyperlipidemia and evidence of endothelial dysfunction, were present before the advent of HAART, these abnormalities and others have increased both in prevalence and scope.

This study will specifically evaluate vascular endothelial inflammatory pathways and vascular function and its association with body composition and fat redistribution, insulin resistance, hyperlipidemia, growth and nutrition, bone metabolism and disease severity in HIV-infected children. Additionally, it will determine through a randomized trial, the effect of a 12-week combined resistance and aerobic exercise intervention on nutritional, metabolic, bone, cardiovascular, and clinical outcomes for HIV-infected children.