Detectable Viral Load Tied to Uptick in Heart Disease Risk in Youth With HIV

The association between viral load and cardiovascular disease risk has been under-investigated among young people with HIV.

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Among young people living with HIV, having a detectable viral load is associated with a slight increase in the risk of cardiovascular disease (CVD).

Sitaji Gurung, MD, PhD, MPH, of Hunter College at the City University of New York, presented findings from a study of HIV-positive youth 14 to 26 years old at the 2020 Conference on Retroviruses and Opportunistic Infections in Boston last month.

The study relied on electronic health records from the Adolescent Medicine Trials Network 154 Cascade Monitoring, which derives its data from clinics across the United States that care for adolescents with HIV.

The study analyzed the association between viral load and CD4 count and CVD risk according to two cardiac risk scores based on the gender-specific Framingham algorithm.

There were sufficient data on 813 youths to calculate their cardiac risk score 1, meaning there were data on their systolic blood pressure, cigarette smoking, diabetes and use of high blood pressure medication. There were sufficient data on 398 youths to calculate their cardiac risk score 2, meaning there were data for cardiac risk score 1 as well as their total cholesterol and HDL, or “good” cholesterol.

The study cohort was predominantly Black and male. The average age was 21 years old. In the overall group, 47.8% had a detectable viral load and 8.6% had a CD4 count of 200 or below upon entering the study.

After adjusting the data to account for various demographic and clinical differences between the cohort members, the study authors found that every 1,000-point increase in viral load was associated with a 38% increase in the likelihood of having CVD risk according to cardiac risk score 2. This increased risk was independent of exposure to antiretrovirals. There was no significant association between CD4 count and CVD risk.

“Our findings demonstrate the independent contribution of detectable VL [viral load] on cardiovascular risk and highlight the importance of maintaining VL suppression, monitoring metabolic health and promoting self-management of [young people with HIV],” the study authors concluded.

To read the conference abstract, click here.

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