Long periods of viral suppression shown to prevent cancer in aging HIV population

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Early, sustained antiretroviral therapy (ART), which results in long-term viral suppression, helps to prevent AIDS-defining cancers and also non-AIDS-defining cancers, to a lesser degree. However, patients with long-term viral suppression still had excess cancer risk compared to uninfected patients. The study, published in *Annals of Internal Medicine*, is the first to examine the effects of prolonged periods of viral suppression and potential cancer prevention benefits for the aging population of persons living with HIV.

Persons with HIV are at increased risk for AIDS-defining cancers (Kaposi sarcoma, non-Hodgkin lymphoma, invasive cervical cancer) and non-AIDS-defining cancers (lung, larynx, melanoma, leukemia, etc.). Some of these cancers are known to be caused by viruses (certain anal, liver, Hodgkin lymphoma, etc.) that are common among persons with HIV. Viral suppression is a key component of HIV treatment, and studies have shown an association between prolonged viral suppression and decreased risk for some types of cancer. However, no studies have specifically focused on the effect of sustained viral suppression on overall cancer risk.

Researchers from the Stanford Center for Population Health Sciences compared cancer rates for 42,441 HIV-positive veterans with those of 104,712 demographically-matched uninfected veterans from 1999-2015 to determine whether long-term viral suppression was associated with decreased cancer risk. They found that cancer risk was highest in the unsuppressed state, lower in early suppression, lower still in long-term

suppression, and lowest in uninfected patients for all cancer, AIDS-defining cancer, virus non-AIDS-defining-cancer, and several cancer types.

According to the authors, these findings are helpful to both infectious disease and internal medicine clinicians who care for the population of aging HIV-positive patients. Understanding how HIV interacts with viral coinfections and results in higher risks of cancer may offer critical insight in how to better prevent and treat these cancers for everyone.

More information: *Annals of Internal Medicine* (2018). http://annals.org/aim/article/doi/10.7326/M16-2094

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