Viral Shedding May Occur in Semen Despite Undetectable Status

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One in 13 HIV-positive gay men who maintain an undetectable blood viral load still experience intermittent viral shedding in their semen that is not connected to having a sexually transmitted infection, the National AIDS Treatment Advocacy Project reports. Investigators studied 153 men who have sex with men (MSM) who were taking a stable antiretroviral (ARV) regimen and who had an undetectable blood viral load for six months or longer. They presented their findings at the 7th International AIDS Society Conference on HIV Pathogenesis, Treatment and Prevention (IAS 2013) in Kuala Lumpur.

None of the study participants had symptoms of a sexually transmitted infection (STI), and all of them agreed not to have sex for two days before providing samples of blood and semen at two visits separated by four weeks.

Twenty-three out of 304 (7.6 percent) of the semen samples had detectable HIV, ranging between 50 and 1,475 copies per milliliter, with a median of 145. Five of the participants (3.2 percent) had detectable virus in their semen at the first visit, but not the second. Two (1.3 percent) had detectable virus at both visits. Fourteen (9.1 percent) had detectable virus at second visit but not the first.

Thirty-two of the men (20.4 percent) turned out to have an STI.

Having a higher CD4 count, specifically between 554 and 735, reduced the likelihood of detectable HIV in semen by 70 percent. Also, having HIV levels in peripheral blood mononuclear cells (PBMCs) greater than 318 copies per million cells increased the chances of HIV in semen by a factor of 3.1 as compared with having levels below that marker. PBMCs are any blood cell that has a round nucleus, which includes lymphocytes, monocytes and macrophages.

The investigators could not say if these levels of virus in semen posed a transmission risk.

To read the NATAP report, click here.

To read the conference abstract, click here.