Sex and sensibility

Navigating the relationship between viral load and transmissibility

by Carl Bognar

Scientists still haven't determined how viral load, the amount of HIV measurable in blood, affects transmissibility of HIV through sexual activity. What they are uncovering is complex, and several scientific mysteries need to be resolved before they can make recommendations. This information is critical for HIV-positive people to make sensible decisions about how to behave in various situations. It's important, then, to understand the issues surrounding viral load and infectivity.

An undetectable level of virus doesn't mean that no virus is in the blood. It only means that the amount of virus is too small to be measured by existing tests. Because HIV is not spread evenly throughout the body, no clear picture is available of the relationship between viral load measured in blood and viral load measured in semen or other bodily fluids. For example, it is possible that viral load in a man's semen could be much higher or lower than the viral load in his blood. As well, it is difficult to know how much HIV exists in precum. To complicate matters, these differences may vary from individual to individual.

Viral load also varies considerably over time. An undetectable viral load a few weeks ago is no guarantee of an undetectable viral load today. In fact, viral load and CD4 counts can vary within a few hours, so doctors recommend having regular lab tests done at the same time of day. Measured viral load doesn't provide a solid basis for making a decision about viral transmission.

For serodivergent sexual partners, this variability means that safer sex is always the wisest decision. If both you and your partner are HIV-positive, the picture is a little different. HIV-positive sex partners need to consider viral load as well as drug resistance: What are the chances of transmitting a virus of a different type—particularly one that is already drug-resistant—to your sexual partner? And if a person does acquire a different strain, what effect will this have on his or her future health?

Scientists still can't provide clear answers to these two questions. However, it makes intuitive sense that re-infection with various strains of virus might not be a good thing. In unprotected sex, HIV-positive partners still need to be concerned about possible transmission of sexually transmitted infections, which may be more difficult to treat because of positive serostatus. Hepatitis C might increase the level of risk in unprotected positive-positive sex as well.

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Research suggests that some HIV-positive gay men prefer to have sex with other positive men in order to minimize the risks of transmitting HIV. Given the weakness of data on the dangers of unprotected sex between positive people and the risks of transmission in serodiscordant relationships, this practice can be considered a form of harm reduction. Two HIV-positive people could reasonably decide that intimacy and pleasure are more important than unproven risks. In the United Kingdom, recommendations are emerging for harm reduction in sexual activities that stop short of completely "outlawing" condomless sex between two positive partners.

Condoms are probably a good idea if your HIV isn't being treated or if your viral load is detectable. If you're both positive but don't want to use condoms, be sure to use lots of lube. Avoid toys and fisting before anal penetration because of the potential for cuts and tears in the skin that might facilitate viral transmission. Withdrawal before ejaculation is probably a good idea, too.

Currently, we don't know for sure how condomless sex will affect the health of HIV-positive partners. It's up to you to decide, armed with the facts and aware of the gaps in knowledge. ⊕

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