What makes a viral load blip?

One of the goals of anti-HIV therapy is to reduce viral load as much as possible. Generally, this means getting viral load below the 50-copy mark.

Using powerful combinations of medicines, HIV positive people, particularly those just starting therapy, are generally able to achieve this goal. As viral load is suppressed, the immune system slowly begins to repair the damage caused by years of HIV infection.

Although viral load can be suppressed, from time to time it may become detectable and then fall again below the 50-copy mark. Viral load assessments that occasionally become detectable—usually in the range of 50 to 1,000 copies—before again falling below the 50-copy mark are called “blips.”

The reasons for blips can vary and here are some possibilities:

- In some cases, blips may be due to variation in laboratory techniques that assess viral load, or even to laboratory error. However, in labs experienced with viral load testing, such variations or errors are relatively uncommon.
- Blips may also occur because the immune system has been highly stimulated, perhaps by a vaccination, flu or sexually transmitted infection. Such stimulation can temporarily trigger an increase in HIV replication.
- For reasons of poor absorption or poor adherence, levels of anti-HIV drugs in the blood may fall to low levels, allowing HIV to temporarily overcome the effect of HAART.

Most studies have not found a link between blips and virological failure. As a result, the reason that blips occur has, for the most part, remained a mystery.

However, detailed reports from a recent analysis of two clinical trials suggest that blips may be closely linked to reduced adherence to medication. In reviewing adherence data, researchers found that one week before a blip occurred adherence had decreased. In general, this pattern was repeated throughout the study.

This finding highlights the need for conversation between doctors and their patients about adherence-related issues when blips occur.

REFERENCES:


Disclaimer

Decisions about particular medical treatments should always be made in consultation with a qualified medical practitioner knowledgeable about HIV- and hepatitis C-related illness and the treatments in question.

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