HIV May Replicate in Spinal Fluid Even After Years of Treatment

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Low levels of HIV may still replicate in cerebrospinal fluid even when the viral load is undetectable in both the CSF and the plasma and after an individual has been treated with antiretrovirals (ARVs) for up to a decade. Publishing their findings in the journal AIDS, researchers used a super-sensitive test that can detect as low a viral load as 0.3 copies per milliliter to analyze 70 CSF samples and 68 plasma samples from 45 people living with HIV who were on ARVs.

They also measured the levels of neopterin, which is an indicator of immune activation, in the CSF. This is important to measure because chronic immune activation can be harmful.

The tests detected HIV RNA in 12 of the CSF samples (17 percent) and 39 of the plasma samples (57 percent). The CSF samples that had detectable HIV RNA had higher levels of neopterin compared with the samples that had undetectable viral RNA. There was no difference between those study participants with detectable or undetectable CSF samples in terms of their plasma HIV RNA levels, their lowest-ever CD4 count or the estimate of how effectively their ARV regimen penetrated the central nervous system (CNS).

The researchers concluded that low-level viral replication in the CSF and its relation to increased immune activation points to the potential for the CNS to serve as a reservoir for the virus, as well as to the potential for chronic infection to harm the CNS.

To read the study, click here.

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http://beta.docker.poz.com/article/CSF-replication-26261-2571