Treating Early May Limit HIV Reservoir, But Virus Still Rebounds

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Very early antiretroviral (ARV) treatment limits the size of the viral reservoir in primates infected with an HIV-like virus, but the virus still rebounds after treatment is interrupted, the Los Angeles Times reports. Publishing their findings in Nature, researchers rectally infected 20 adult rhesus monkeys with SIV, HIV's simian cousin, and then started the animals on ARVs either on day 3, 7, 10 or 14 after infection.

Starting treatment after just three days blocked viral RNA and proviral DNA from emerging in peripheral blood, an indication that treating this early helped fight the establishment of the viral reservoir. In addition, treatment on day three lowered levels of proviral DNA in lymph nodes and gastrointestinal mucosa—both of which are elements of the viral reservoir—when compared with starting treatment later. Such early treatment also muted the immune response to SIV.

The virus nevertheless rebounded in all the monkeys when treatment was stopped after 24 weeks. The virus did take longer to do so in the monkeys treated on day three, however. There was a direct correlation between the time to full viral rebound and the level of the virus during the acute infection phase and also with proviral DNA at the time that treatment was stopped.

To read the LA Times story, click here.

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