The First Year of HIV Infection: A Window of Opportunity

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People who start HIV treatment within a year of contracting the virus appear to have a better chance of refurbishing their immune systems than those whose treatment is delayed past that point. Researchers studied 1,119 people living with HIV whose records indicated an estimated date when they became HIV positive. They compared this group with a population of HIV-negative people, whose median CD4 count of about 900 led the researchers to establish 800 CD4s as the "normal" threshold.

Thirty-eight percent of the HIV-positive people who started antiretrovirals (ARVs) within a year of contracting the virus saw their CD4 cells rise to normal levels, while 28 percent of those who started treatment later reached such a high CD4 count.

When compared with the rest of the participants in the study, the HIV-positive individuals who began the study with more than 500 CD4s were twice as likely to develop a normal level of CD4s, and four times as likely to do so if they started ARVs with CD4s above 500. Notably, among the participants who had more than 500 CD4 cells upon entering the study and who began ARVs when their CD4s were still that high, those who started treatment after being infected for a year were 80 percent less likely to reach normal CD4 levels than those who went on ARVs during their first year of infection.Also, people who started ARVs within 12 months of contracting the virus had a 7.8 percent risk of developing AIDS, compared with 15.3 percent among those who started treatment after 12 months.

The study's lead author, Sunil K. Ahuja, MD, director of the Veterans Administration Center for Personalized Medicine in San Antonio, Texas, acknowledges that it is certainly worthy to weigh the potential cost of spending more of a lifetime on ARVs—since those drugs have toxicities—against the apparent benefits of earlier therapy. Nevertheless, he says, "If I had a choice, I would like to get my patients back to a state where I could say they are immunologically similar to HIV-uninfected people. Now, that may seem like an audacious goal, but that is the goal."

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