Treating HIV Very Early May Limit Inflammation, Gut Damage

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Staring antiretroviral (ARV) therapy immediately after HIV infection may both limit the virus's toll on the gut lining and also lower the body's overall chronic inflammatory state, HIVandHepatitis reports. Studying 34 people with acute HIV infection, researchers presented their findings at the Conference on Retroviruses and Opportunistic Infections (CROI) in Boston.

Out of 53,000 screened samples, 13 participants were identified in what's known as Fibig stage I (FI), which refers to the first acceleration of viral replication following infection. The Fibig stages ultimately lead to FIV, which occurs when the viral load reaches its peak. An additional 21 of the participants were diagnosed at FIII. The study also included various matched controls: five HIV-negative participants and nine treatment-naive people who had been living with the virus for six to 12 months.

The participants underwent gut tissue biopsies upon their entry into the study and again six and 24 months after beginning ARVs.

Those who started therapy during FI maintained a proportion of Th17 cells, which are a T cells that are key to maintaining the gut lining, similar to that of HIV-negative people at the six- and 24-month reads. While progressing through the Fibig stages apparently led to a drop in Th17 cell proportion, the introduction of ARVs prevented additional cell loss. Nevertheless, HIV therapy did not reverse this loss in those who started treatment during FIII.

Those in FI at the study's outset displayed signs of an increased inflammatory state in both the gut and in peripheral blood, while those in FIII showed much greater signs of inflammation. Starting HIV treatment at FI reduced the inflammatory state to that of HIV-negative people. If treatment didn't begin until FIII, there was still evidence of an elevated inflammatory state after six and 24 months.

HIV-related chronic inflammation is believed to lead to an increased risk for cardiovascular disease and cognitive impairment.

To read the HIVandHepatitis story, click here.

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