Dashing Hopes, HIV Rebounds in 2 Men Once Potentially Cured

December 6, 2013

Two HIV-positive men who each displayed no signs of the virus for extended periods off antiretrovirals (ARVs) following chemotherapy and stem cell transplants to treat their lymphoma have both experienced a viral rebound, The Boston Globe Reports. Researchers from Harvard Medical School and Brigham and Women's Hospital announced not-yet fully analyzed results of the study of these men at the Sixth International Workshop on HIV Persistence, Reservoirs and Eradication Strategies.

After the researchers announced preliminary findings from this study at a conference in August, the scientific community was cautiously optimistic that enough time would eventually pass to effectively certify that the men had achieved permanent viral remission. With those hopes dashed and with the troubling indication that the viral reservoir is even more deep and persistent than scientists have previously assumed, there is a silver lining in that the researchers believe they can learn a great deal from studying these two men and can use this knowledge to help hone more effective cure strategies in the future.

The two men received their transplants a respective two and five years ago. By the announcement this summer, one man had gone 15 weeks after stopping ARVs and the other had gone seven weeks; at that time, even highly sensitive viral load tests could not detect any virus in their blood, nor could tests on their rectal tissue, which is a major element of the viral reservoir.

The two men received a less-intense form of chemotherapy than what Timothy Brown, a.k.a. "the Berlin Patient," received and which functionally cured him of HIV. Brown also received a bone marrow transplant from a donor who had a genetic abnormality called a CCR5 delta32 mutation that made him naturally resistant to the virus.

While the stem cell transplants given to the two men in this new study did not have such a mutation, researchers theorized that the success they initially achieved at suppressing the virus was likely because of a phenomenon known as graft-versus-host disease. In this approximately nine-month process following a transplant, the new immune cells attack the old ones, which have been weakened by chemotherapy and which, in the case of these two men, were the only cells infected by the virus.

In August, however, one man began showing signs of rebounding HIV, and he went back on ARVs.

In November, following eight months with no apparent virus in his body, the second man also began to rebound and he too returned to taking HIV therapy.
