Tivicay-Based 2nd-Line Regimens Work Well, Even Against Resistant HIV

Researchers examined outcomes among a group of people in middle- and low-income nations who switched to the integrase inhibitor.

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People with HIV who switch to an antiretroviral (ARV) regimen based on the integrase inhibitor Tivicay (dolutegravir) achieve viral suppression at comparable rates to those who switch to a regimen based on the boosted protease inhibitor Kaletra (lopinavir/ritonavir), aidsmap reports. Such success with Tivicay was seen even in the face of significant rates of viral resistance to nucleoside/nucleotide reverse transcriptase inhibitors (NRTIs).

Presenting their findings at the 2019 Conference on Retroviruses and Opportunistic Infections (CROI) in Seattle, researchers in the DAWNING study enrolled 624 people living with HIV in low- and middle-income nations. The participants were all switched from their first ARV treatment and randomized to receive either a Tivicay- or Kaletra- based second-line regimen.

To enter the trial, the participants needed to have HIV that was susceptible to at least one NRTI.

One third of the participants were women. One in five had a viral load greater than 100,000. Seventy-eight percent of them took a Sustiva (efavirenz)-based regimen. Fifty-nine percent of them had taken Viread (tenofovir disoproxil fumarate), and 29 percent had taken Retrovir (zidovudine, or AZT).

Drug resistance testing showed that 90 percent of the study members had virus resistant to some NRTIs, including 82 percent who had the M184V/I mutation that confers resistance to Emtriva (emtricitabine).

The NRTI background drugs in the second-line regimens to which participants switched included Retrovir in 41 percent of cases and Viread plus Emtriva or Epivir (lamivudine) in 42 percent of cases. More than two out of three of the study members who had the M184V/I mutation took Emtriva or Epivir, including 71 percent of this group who took Tivicay and 67 percent who took Kaletra.

Having the Emtriva-associated viral mutation turned out to have no association with the chance of achieving a fully suppressed viral load 48 weeks into the study. Nor did having resistance to Viread

or Retrovir appear to affect viral suppression rates.

At the 48-week mark, 84 percent of those in the Tivicay arm and 70 percent of those in the Kaletra arm were virally suppressed. This led the researchers to conclude that Tivicay is as effective as Kaletra at suppressing HIV when used as a second-line treatment for HIV.

The participants in the Tivicay arm did not develop any new NRTI-linked resistance mutations.

The study authors also concluded that their data support interim guidelines from the World Health Organization that recommend using Tivicay plus two NRTIs as a second-line treatment in poorer nations.

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