Better Bone Health Markers for the New Tenofovir

Switching to new tenofovir tied to improved bone health in older people with HIV

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People with HIV age 60 and older who switch from a regimen containing the older form of tenofovir to Genvoya, which contains an updated version of the medication, experience improvements in bone mineral density. Whether such shifts will actually reduce the risk of bone fractures is another question.

Genvoya contains the newer tenofovir alafenamide (TAF) plus elvitegravir, cobicistat and emtricitabine. TAF is also included in the combination tablets Descovy, Biktarvy, Odefsey and Symtuza. The older tenofovir disoproxil fumarate (TDF) is a component of the Truvada, Atripla, Complera, Stribild and Delstrigo combo tablets.

For the study, the researchers recruited 167 HIV-positive Europeans 60 years old or older who were taking a regimen containing TDF. They were randomized to stay on their current regimen or to switch to Genvoya.

After one year, those who switched from TDF to TAF saw a median 2.24% increase in bone mineral density at the spine and a median 1.33% increase at the hip, compared with a respective 0.10% and 0.73% decline among those who stayed on the older tenofovir.

“I think a decrease of bone mineral density is not a clinically relevant outcome,” cautioned one of the study’s authors, Jean-Michel Molina, MD, of Hôpital Saint-Louis in Paris. He offered that it “would be more relevant to look at the proportion of patients with osteoporosis.”

To that end, among those who started the study with osteoporosis or osteopenia (a milder degree of bone loss), more people in the TAF group experienced improvements in bone mineral density. The researchers saw no bone fractures related to treatment.

Kidney-health tests indicated that the newer tenofovir, TAF, had less effect on kidney function than TDF on this front.

People in the TDF group experienced stable cholesterol levels through the 48-week mark. Among those who switched to TAF, harmful LDL cholesterol increased by a median of 24 milligrams per deciliter, and triglycerides increased by a median of 31 mg/dl. This is a modest rise but could

make some people eligible for cholesterol-lowering statin meds.

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