Integrase Inhibitors May Raise Diabetes Risk in People With HIV

However, a recent study found that this varied based on the specific integrase inhibitor used.

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Integrase inhibitors, a newer class of antiretrovirals (ARVs), may be associated with an increased risk of diabetes, although this finding may vary based on the specific medication, aidsmap reports.

Presenting his research team's findings at the IDWeek meeting in Washington, DC, earlier this month, Peter Rebeiro, PhD, of Vanderbilt University Medical Center in Tennessee, analyzed the association between different classes of ARVs and a diabetes diagnosis among 21,516 people with HIV in the North American AIDS Cohort Collaboration on Research and Design (NA-ACCORD) cohort.

The participants were all starting ARVs for the first time between 2007 and 2016 with regimens that included a non-nucleoside reverse transcriptase inhibitor, or NNRTI (10,553 people, or 49% of the cohort), protease inhibitor (6,677, or 31%) or integrase inhibitor (4,286, or 20%).

Among those who started an integrase inhibitor, 51% took elvitegravir (marketed as the stand-alone drug Vitekta and included in the Stribild and Genvoya combination pills), 28% took raltegravir (Isentress) and 21% took dolutegravir (Tivicay, also in the Triumeq, Juluca and Dovato combo pills).

Eighty-seven percent of the participants were men, and about 40% were white. Among those taking NNRTIs, protease inhibitors and integrase inhibitors, the median age was 42, 41 and 38 years old, respectively; the median CD4 count was 313, 262 and 360, respectively; and the median follow-up time was 3.05, 2.35 and 1.62 years, respectively.

Three percent of the participants were diagnosed with diabetes during follow-up. The diagnosis rate per 1,000 cumulative years of follow-up was 9.2, 11.8 and 12.0 diagnoses among those taking NNRTIs, protease inhbitors and integrase inhibitors, respectively.

This meant that those who started on integrase inhibitors were 22% more likely to receive a diabetes diagnosis compared with those who started taking NNRTIs; this difference was not quite statistically significant, meaning it may have been driven by chance. However, taking integrase inhibitors was associated with a statistically significant 25% increased risk of diabetes compared

with taking protease inhibitors.

In the integrase inhibitor group, the diabetes diagnosis rate per 1,000 cumulative years of follow-up was 10.7, 16.2 and 15.6 diagnoses among those who took elvitegravir, raltegravir and dolutegravir, respectively. Compared with starting on NNRTIs, doing so with raltegravir was associated with a statistically significant 50% increased risk of diabetes, while doing so with the other two integrase inhibitors was not associated with significantly increased risk of the diagnosis.

The study authors concluded that further research is needed to determine whether the apparent elevated risk of diabetes associated with integrase inhibitors is driven by weight gain.

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