Sustiva, Included in Atripla, May Compromise Vaginal-Ring Birth Control

Investigators behind the recent study that raised this concern suggest not combining the two until more research can be done.

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Sustiva (efavirenz) alters the levels of both hormones contained in the contraceptive vaginal ring NuvaRing to such an extent that the antiretroviral (ARV) may compromise its effectiveness at preventing pregnancy, aidsmap reports. The investigators who identified this interaction in a recent study suggest that women living with HIV should avoid combining the vaginal ring with Sustiva until more research can be conducted to analyze how the ARV may impact the ring's effectiveness.

Findings from the international, multicenter, longitudinal, parallel-group pharmacokinetic A5316 study were presented at the 2018 Conference on Retroviruses and Opportunistic Infections (CROI) in Boston.

The one-month NuvaRing is infused with 120 micrograms of etonogestrel and 15 micrograms of ethinyl estradiol.

Sustiva is included in the single-tablet combination HIV regimen Atripla (efavirenz/tenofovir disoproxil fumarate/emtricitabine).

Between December 2014 and September 2016, the study recruited 27 HIV-positive women from Africa, Asia, North America and South America who had not yet taken ARVs to serve as a control group, 28 women who were taking Sustiva as a part of their HIV regimen and 29 women taking Norvir (ritonavir)-boosted Reyataz (atazanavir) as a part of their ARV regimen. A respective 25, 25 and 24 women from each group were included in the final analysis.

The women were given the vaginal ring for 21 days along with endogenous progesterone, which they continued to take for four weeks after stopping use of the vaginal ring.

The women in the control group had a median age of 31 years; the other two groups had a median age of 36 years. Forty-four to 64 percent of the women in the three groups were Black and 32 percent to 40 percent were Latina.

On the day the women started using the ring and on days seven, 14 and 21, the women received assessments of their plasma concentrations of ethinyl estradiol and etonogestrel.

Compared with the control group, those in the Sustiva group had 53 to 57 percent lower levels of ethinyl estradiol at each of the three measurement points after they started using the ring. Those in the boosted Reyataz group had 29 to 35 percent lower levels of ethinyl estradiol compared with those in the control group, although the differences in levels of this hormone were only statistically significantly different at the 14- and 21-day assessment points, meaning that at the seven-day assessment point any difference may have been attributable to chance.

As for etonogestrel levels, compared with the control group, the Sustiva group had 76 to 79 percent lower levels and the boosted Reyataz group had 71 to 79 percent higher levels at three assessment points.

The researchers concluded that it is unlikely that boosted Reyataz will impact the effectiveness of vaginal ring contraceptives.

The vaginal ring was safe and well tolerated. The Sustiva group experienced a greater rate of menstrual bleeding abnormalities. Other adverse health events occurred more commonly among those in the control group.

In addition to cautioning that Sustiva might compromise the effectiveness of the contraceptive vaginal ring, the study's investigators stressed the importance of considering the potential for drug-drug interactions when seeking to design combination vaginal rings that both prevent HIV and pregnancy.

To read the conference abstract, click here.

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