Bristol-Myers Squibb's HIV Maturation Inhibitor Shows Promise

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Research of Bristol-Myers Squibb's BMS-955176, an HIV maturation inhibitor, has shown the antiretroviral is potent and well-tolerated, findings that support further research. Researchers presented findings from the three-part, randomized Phase IIa proof-of-concept study of the drug at the 15th European AIDS Conference in Barcelona.

The study included people with HIV-1 who had a viral load of at least 5,000 and a CD4 count of 200 or greater.

Part A of the study initially included 40 people with subtype B of the virus. They were randomized into five groups of eight people, who received either 5 milligrams, 10 mg, 20 mg or 40 mg of BMS-955176, or took a placebo. Later, an additional 20 people joined the trial, with two groups of eight people receiving 80 mg and 120 mg of BMS-955176, respectively, while an additional four people joined the placebo group.

After 10 days of treatment, the median viral load drop ranged from 0.15 powers of 10 in the 5 mg group to 1.35 and 1.36 powers of 10 in the 80 mg and 120 mg groups, respectively, while those who took the placebo experienced a median viral load drop of 0.03 powers of 10. (One power of 10 is equivalent to a 90 percent reduction and two powers of 10 to a 99 percent reduction.) After 24 days of treatment, the median viral load drop ranged between 0.5 powers of 10 in the 5 mg group to 1.70, 1.56, and 1.65 powers of 10 in the 40 mg, 80 mg and 120 mg groups, respectively; while those who took the placebo experienced a median viral load drop of 0.38 powers of 10.

Part B of the study included 28 people with subtype B of HIV. They were randomized so that there were eight people in three groups and four people in a control group. Respectively, those groups took 40 mg of BMS-955176 and 400 mg of Reyataz (atazanavir); 40 mg of BMS-955176, 300 mg of Reyataz, and 100 mg of Norvir (ritonavir); 80 mg of BMS-955176 and 400 mg of Reyataz; and 500 mg of Truvada (tenofovir/emtricitabine), 300 mg of Reyataz, and 100 mg of Norvir.

After 28 days of treatment, the median drop in HIV viral load was a respective 1.66, 1.99 and 2.18 powers of 10 in the three groups of eight people, compared with 2.22 powers of 10 in the control group. After 42 days of treatment, the median drop in viral load was a respective 1.86, 2.2 and 2.23 powers of 10 in the three groups of eight people, compared with 2.39 powers of 10 in the control group.

Part C of the study included 19 participants with subtype C of the virus. They were randomized so that eight people took 40 mg of BMS-955176, seven took 120 mg of the drug, and four people took a placebo.

After 11 days of treatment, the median viral load drop was 1.21 powers of 10 in the 40 mg group and 1.03 powers of 10 in the 120 mg group, while the placebo group saw a median viral load increase of 0.001 powers of 10. After 24 days of treatment, the median viral load drop was 1.35 powers of 10 in the 40 mg group, 1.26 powers of 10 in the 120 mg group, and 0.42 in the placebo group.

BMS-955176 proved safe and well tolerated in all three parts of the study.

To read a press release about the study, click here.
