Cholesterol-Lowering Drug Improves Heart Function in People With HIV

A small pilot study tested the drug evolocumab among people living with the virus.

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A small pilot study found that the cholesterol-lowing drug Repatha (evolocumab) improved the function of the coronary arteries that deliver oxygen to the heart among people living with HIV.

Publishing their findings in the Journal of the American Heart Association, researchers at Johns Hopkins University School of Medicine gave Repatha for six weeks to 19 people with HIV as well as 11 people without the virus who had high cholesterol.

Repatha is a PCSK9 inhibitor, meaning it inhibits the activity of the protein PCSK9, which is involved in the metabolism of cholesterol.

At the beginning of the study and again at the end of the six-week treatment period, the participants received MRIs to measure the functioning of the right coronary artery, both when resting and when engaging in a hand exercise.

When HIV-negative people with normal cholesterol perform this hand exercise, it usually causes the area of the coronary artery to increase, which allows greater blood flow. In people whose blood vessel function is impaired, such as by HIV or high cholesterol, the artery does not expand during the exercise or may even get smaller, lessening blood flow.

At the end of the six weeks of treatment with Repatha, the participants with HIV saw their coronary artery area increase by 7.9% on average and their blood flow increase by 10.1% during the hand exercise, compared with what was seen before they started treatment. The participants without the virus also saw an improvement in coronary artery area and blood flow.

“To our knowledge, these data represent the first evidence that PCSK9 inhibition improves coronary artery health in [people with HIV] and people with [high cholesterol],” the study authors concluded.

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

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