Curing Hep C Tied to Improvement in Insulin Resistance

However, having a higher body mass index might prevent this improvement.

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Curing hepatitis C virus (HCV) through direct-acting antiviral (DAA) treatment is associated with improvements in insulin resistance, although less so for people with a higher body mass index (BMI).

Francisco Paolo Russo, MD, of Padua University Hospital in Italy, and colleagues conducted a prospective study of 138 people with HCV who were treated with DAAs at three Italian health care centers between May 2015 and December 2016. The study excluded people with diabetes.

The study authors defined insulin resistance as having a homeostasis model assessment index for insulin resistance (HOMA-IR) score greater than 2.5. The participants received FibroScan tests of their liver to assess for cirrhosis when they started DAAs and at 24 and 48 weeks after they finished treatment for HCV.

The participants were 58 years old on average. Sixty-two percent were men, 61% had genotype 1 of HCV, 69% had cirrhosis and 68% had insulin resistance at the study's outset.

Those who started the study with insulin resistance had higher liver stiffness on FibroScan, indicating more advanced liver fibrosis than those without insulin resistance.

Ninety-eight percent of the participants achieved a sustained virologic response (SVR) 12 weeks after completing therapy, considered a cure.

One hundred twenty-four participants attended their 48-week study visit after finishing DAA treatment. At this point, just 49% had insulin resistance. The median HOMA-IR score had declined from 3 at the study's baseline to 1.8. This decline was associated with a significant reduction in the median insulin level, from 16.4 to 11.7.

Having a high BMI was associated with a lower chance of no longer having insulin resistance at the 24-week and 48-week post-treatment study visits.

"In conclusion," the study authors wrote," SVR following DAAs led to a significant reduction of

[insulin resistance], even in patients with cirrhosis. Nevertheless, [insulin resistance] can persist after the achievement of SVR, especially in patients with high BMI."

To read the study abstract, click here.
