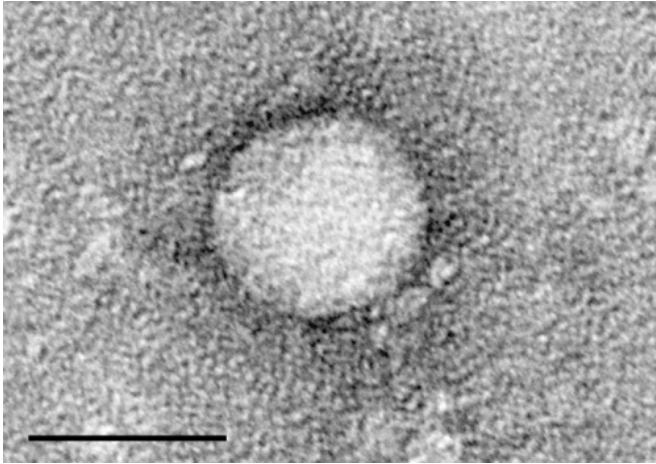


Antiviral drug prevents recurrence of hepatitis C in liver transplant patients

10 January 2017



Electron micrographs of hepatitis C virus purified from cell culture. Scale bar is 50 nanometers. Credit: Center for the Study of Hepatitis C, The Rockefeller University.

Patients with hepatitis C virus infection who received an antiviral drug around the time they underwent liver transplantation saw a high rate of sustained virologic response, according to a Northwestern Medicine phase II clinical trial. The finding suggests that the therapy might be an effective approach to preventing reinfection in such patients.

Josh Levitsky, MD, MS, professor of Medicine in the Division of Gastroenterology and Hepatology, was the corresponding author of the paper, published in the *New England Journal of Medicine*.

Infection with the blood-borne hepatitis C virus (HCV) can lead to severe liver damage. As such, HCV-associated cirrhosis is currently the leading indication for liver transplantation. But because almost all patients with the virus experience a recurrence of infection after they receive a transplant, there tend to be high rates of graft failure.

In the trial, patients with chronic HCV were given a single dose of the antiviral drug ledipasvir-sofosbuvir the day they arrived at the hospital for liver transplantation, and they continued to take the [antiviral drug](#) once per day for four weeks post-surgery.

At the end of the four weeks, 88 percent of the study participants achieved a sustained virologic response, meaning the virus had been eradicated from their blood.

While direct-acting antiviral agents such as ledipasvir-sofosbuvir have been shown to be effective in treating recurrent HCV infections, this is the first study to investigate how the drugs might prevent reinfection at the time of [liver transplantation](#).

"Modifications of this approach might also be applicable to other transplant settings to prevent donor transmission of hepatitis C infection," Levitsky said.

More information: Josh Levitsky et al. Perioperative Ledipasvir–Sofosbuvir for HCV in Liver-Transplant Recipients, *New England Journal of Medicine* (2016). [DOI: 10.1056/NEJMc1611829](https://doi.org/10.1056/NEJMc1611829)

Provided by Northwestern University

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