An interferon-free antiviral regimen for HCV after liver transplantation

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Hepatitis C virus (HCV) infection is the leading indication for liver transplantation worldwide, and interferon–containing regimens are associated with low response rates owing to treatment–limiting toxic effects in immunosuppressed liver–transplant recipients. Authors evaluated the interferon–free regimen of the NS5A inhibitor ombitasvir coformulated with the ritonavir–boosted protease inhibitor ABT–450 (ABT–450/r), the nonnucleoside NS5B polymerase inhibitor dasabuvir, and ribavirin in liver–transplant recipients with recurrent HCV genotype 1 infection. Treatment with the multitargeted regimen of ombitasvir–ABT–450/r and dasabuvir with ribavirin was associated with a low rate of serious adverse events and a high rate of sustained virologic response among liver–transplant recipients with recurrent HCV genotype 1 infection, a historically difficult–to–treat population.

Methods

Authors enrolled 34 liver–transplant recipients with no fibrosis or mild fibrosis, who received ombitasvir–ABT–450/r (at a once–daily dose of 25 mg of ombitasvir, 150 mg of ABT–450, and 100 mg of ritonavir), dasabuvir (250 mg twice daily), and ribavirin for 24 weeks.
Selection of the initial ribavirin dose and subsequent dose modifications for anemia were at the investigator's discretion.
The primary efficacy end point was a sustained virologic response 12 weeks after the end of treatment.
Results

Of the 34 study participants, 33 had a sustained virologic response at post–treatment weeks 12 and 24, for a rate of 97% (95% confidence interval, 85 to 100).
The most common adverse events were fatigue, headache, and cough.
Five patients (15%) required erythropoietin; no patient required blood transfusion.
One patient discontinued the study drugs owing to adverse events after week 18 but had a sustained virologic response.
Blood levels of calcineurin inhibitors were monitored, and dosages were modified to maintain therapeutic levels; no episode of graft rejection was observed during the study.