HCV TREATMENT FOUND SAFE AND EFFECTIVE IN INDIVIDUALS WITH KIDNEY DISEASE

Highlights
• In patients with chronic kidney disease and Hepatitis C virus infection, sofosbuvir-based direct-acting antiviral therapy was safe and effective.
• Patients with stage 3 kidney disease who were cured of infection experienced an improvement in their kidney function following treatment.

Hepatitis C virus infection, the most frequent chronic viral infection in the United States, is a common comorbidity in patients with chronic kidney disease.

Washington, DC (September 7, 2017) — A new study indicates that direct-acting antiviral therapy is safe and effective in patients with chronic kidney disease (CKD) and Hepatitis C virus (HCV) infection. The study, which appears in an upcoming issue of the Clinical Journal of the American Society of Nephrology (CJASN), also found that treatment may help improve some patients’ kidney function.

HCV infection—which often causes liver disease—is common in patients with CKD, and it increases their risk of progressing to kidney failure. Sofosbuvir is a potent direct-acting antiviral therapy against HCV, but concerns about potential kidney toxicity have been raised, particularly in patients with CKD.

To determine the safety and efficacy of sofosbuvir in patients with CKD, Meghan Sise, MD, MS (Massachusetts General Hospital) and her colleagues studied 98 patients with stages 1-3 CKD who received sofosbuvir-based therapy in a large healthcare system.

Overall sustained virologic response (which is synonymous with cure of HCV infection) was 81%, and average kidney function while on the treatment was stable. Patients with more advanced CKD were more likely to be cured of HCV infection than those with mild CKD. In addition, patients with advanced CKD who were cured of HCV infection experienced an improvement in their kidney function following treatment. Sofosbuvir was reasonably well tolerated: adverse events were common (81%), but serious adverse events (17%) and treatment discontinuations (8%) were uncommon. Also, there was no detectable effect of the degree of CKD on the rate of adverse events.
Larger studies are needed to determine if eradication of HCV with direct-acting antiviral therapy slows or prevents progression to end stage kidney disease in patients with CKD and HCV.

“The use of direct-acting antiviral therapy in patients with Hepatitis C infection has transformed the illness into a curable one. This study shows that these medications can be safely and effectively used in patients with stage 1-3 kidney disease,” said Dr. Sise.

In an accompanying editorial, Richard Johnson, MD (University of Colorado) and Michiko Shimada, MD, PhD (Hirosaki University Graduate School of Medicine, in Japan) noted that there are other antiviral drugs that are effective in patients with CKD and HCV, and unlike sofosbuvir, they are not eliminated by the kidneys. Therefore, additional research on the effects of different antivirals in patients with compromised kidney function are needed. “We predict that HCV, like hepatitis B virus and HIV, will slowly disappear as a major medical problem for patients with renal disease,” they wrote.

Study co-authors include Elke Backman, PharmD, Guillermo Ortiz, MD, Gregory Hundemer, MD, Nneka Ufere, MD, Donald Chute, BA, Joseph Brancale, BA, Dihua Xu, PhD, Jessica Wisocky, NP, Ming Lin, MD, Arthur Kim, MD, Ravi Thadhani, MD, MPH, and Raymond Chung, MD.

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