Guest Editorial

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Emerging Challenges in the Management of HIV and Hepatitis C Virus Coinfection in Veterans

Twenty-five years into the HIV epidemic, hepatitis C virus (HCV) infection in the HIV-infected patient continues to pose unique and important challenges to health care providers and their patients. Between one third and one half of all veterans infected with HIV are coinfected with HCV—a proportion that is higher than that reported for other national samples.[1] As the largest single provider of medical care to people with both HCV and HIV in the United States, as well as the nation's leader in HCV screening, testing, and treatment,[2,3] the VA is in a remarkable position to tackle the challenge of HIV-HCV coinfection.

As the availability of highly active antiretroviral therapy (HAART) for HIV over the past decade has increased the life expectancy of the average patient with HIV, non–AIDS-related morbidity and mortality have moved to the forefront of clinical concern. Liver disease, in particular, has emerged as a leading cause of such morbidity and mortality. Concurrent HCV infection is believed to be primarily responsible for this comorbidity,[4] and liver disease may progress more rapidly in patients with HIV-HCV coinfection than in those with HCV alone.

Renal diseases are another concern for patients with HIV-HCV coinfection. Immune complex glomerulonephritis can occur in HCV infection, and HIV-associated nephropathy and renal toxicity resulting from certain HIV therapies may contribute further to renal disease. Recent evidence also suggests a higher prevalence of cardiovascular events in patients with HIV-HCV coinfection compared to those with HIV alone,[5] and the risk of diabetes appears to be increased as well. Furthermore, the incidence of these comorbidities rises as patients age, regardless of HIV or HCV status.

HIV-HCV coinfection complicates treatment of both conditions. In such patients, the current standard HCV therapy, pegylated interferon plus ribavirin, has yielded disappointing outcomes, with response rates well below 50% in randomized clinical trials.[6–8] Promising new HCV treatments that target the infection at different stages of its replication cycle, including HCV-specific protease inhibitors (PIs) and polymerase inhibitors, currently are being studied.

In the past year, two new classes of medications have joined the three main existing classes used to treat HIV: nucleoside reverse transcriptase inhibitors (NRTIs), nonnucleoside reverse transcriptase inhibitors (NNRTIs), and PIs. The new classes target the processes of viral entry into T cells (the CCR5 entry inhibitor maraviroc) and the integration of HIV DNA into the host cell DNA (the integrase inhibitor raltegravir), providing novel pathways for viral suppression. In addition, newer PI and NNRTI agents, which are effective in patients with multiple resistance mutations against each respective class, have been approved.

Although the opportunity for further reduction of HIV- and HCV-related morbidity and mortality with new drugs is exciting, providers must be aware of possible challenges posed by introducing new agents into these combination regimens—particularly with regard to potential drug interactions. For example, the NRTI didanosine, once commonly used in combination antiretroviral regimens for HIV, was linked to fatal cases of lactic acidosis and hepatic failure in patients concurrently taking ribavirin for HCV coinfection.[9] As a result, VA national guidelines, among others, now recommend avoiding didanosine in HIV-infected individuals also undergoing HCV treatment.[10]

Another frequently overlooked consideration in patients with HIV-HCV coinfection is correct dosing of drugs in the presence of underlying hepatic and renal insufficiency. Strategies to minimize drug interactions or inappropriate dosing should be incorporated into the care of these patients. (For more on this topic, please refer to the CME/CE activity, "Antiretroviral Therapy for HIV—Renal and Hepatic Dosing Considerations," on page 46 of this issue.)

Also dampening enthusiasm over potential new HCV treatments are medical and behavioral obstacles that continue to keep many patients with HIV-HCV coinfection from undergoing HCV treatment. In one study, for instance, only one third of patients with HIV-HCV coinfection were eligible for HCV treatment, and only one third of those eligible actually went on to receive treatment.[11] The researchers identified several common barriers to treatment, including nonadherence to clinic visits, active psychiatric disease,

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ongoing drug or alcohol use, decompensated liver disease, and other comorbid medical illnesses.[11]

Despite these challenges, opportunities to improve the care of veterans with HIV-HCV coinfection do exist. Even as innovative research continues, the paradigm of care must shift away from compartmentalized approaches and toward those interdisciplinary models that include collaboration between health care providers who are experts in HCV and HIV, as well as pharmacists, social workers, mental health specialists, and patients.

To learn more about the management and care of HIV-HCV coinfection in U.S. veterans, please visit the VA's National Hepatitis C Program web site (http://www.hepatitis.va.gov). ●

Author disclosures

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