Acute Hepatitis C Virus Infection in HIV-Infected Men Who Have Sex With Men: Should We Change Our Screening Practice?

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(See the Major Articles by Vanhommerig et al on pages 1678–85 and by Freiman et al on pages 1686–93.)

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Current guidelines recommend hepatitis C virus (HCV) antibody (anti-HCV) testing in patients presenting with human immunodeficiency virus (HIV) infection, and HCV RNA testing should be performed in those with a positive antibody response [1]. However, direct testing for HCV RNA is recommended in patients with previous intravenous drug abuse and in HIV-infected persons with unexplained aminotransferase elevations [1], as occult HCV infection can be found in some of these patients [2]. It is noteworthy that this approach would not include HCV RNA screening of HIV-infected men who have sex with men (MSM), an important risk group according to numerous reports on the rising number of acute hepatitis C infections (AHCs) in MSM in the last decade [3–6].

However, there is often a gap between the recommendations by guidelines and actual clinical practice. This is clearly demonstrated by the study of Freiman et al [7], published in this issue of Clinical Infectious Diseases. Although the majority of patients (85%) were screened by anti-HCV testing within 3 months after first presentation at HIV primary care clinics, the follow-up HCV screening modalities did not follow the guidelines in a substantial proportion of patients, with only 55.6% receiving additional HCV tests after initial screening [7]. Most interestingly, even patients with elevated aminotransferases (alanine aminotransferase >100 IU/L) did not receive additional HCV screening tests in the majority of cases (only 26.7% of those patients were tested for HCV infection) [7]. Given the fact that the study population was enrolled between 2000 and 2011, it has to be emphasized that in the first years of the study period the guidelines on when, how, and which HIV-infected persons should be tested for HCV had not been as clear as today. Over the last decade, the important clinical impact of HCV co-infections in HIV-infected individuals attracted more attention among clinicians, and especially now—with impressively cure rates achieved by novel direct-acting antivirals [8–10]—HCV screening represents a critical issue.

There is still need for improvement [11] of HCV screening, especially in the setting of AHC, as anti-HCV testing is recommended as the primary screening test for AHC in HIV-infected MSM. Also in this issue of Clinical Infectious Diseases, Vanhommerig et al [12] provide important data on the dynamics of anti-HCV development (HCV seroconversion) and loss of anti-HCV (seroreversion) following AHC in the “at-risk” population of HIV-infected MSM. In brief, the main finding was an average duration of 2.5 months (74 days) for seroconversion and a rate of up to 51% of seroreversion following spontaneous clearance or successful HCV treatment.

It seems that anti-HCV testing is a reliable screening tool for diagnosis of AHC in MSM, since, at least in this cohort of HIV-infected MSM, there was not a single case of “occult” AHC infection. However, the average time to HCV seroconversion was 74 days (approximately 11 weeks), which implies that “early” diagnosis of AHC is often missed when only anti-HCV testing is performed in HIV-infected MSM.

Why is “early” diagnosis of AHC relevant? First, there is still discussion regarding whether liver fibrosis progression is particularly pronounced in HIV-infected MSM after acute HCV compared...
to other patients with AHC infection [13]. Second, early diagnosis might also allow prevention of transmission of HCV by HIV-infected MSM unaware of their HCV infection. Third, the response to antiviral therapy—at least to pegylated interferon alfa (peg-IFN)–based regimens—seems better when treatment is initiated early [14]. Current European AIDS Clinical Society guidelines [15] even recommend initiation of treatment with peg-IFN and ribavirin in absence of a significant decline in viral load within 4 weeks of diagnosis of AHC in HIV-infected patients.

Another important finding of this study was the high rate of seroreversion, which was observed in almost one-third of the patients (8/31 subjects) and the fact that AHC reinfections were diagnosed in the absence of significant aminotransferase elevations. Thus, anti-HCV testing might be of diagnostic value even after resolution of AHC with seroreversion in HIV-infected MSM and should not only be triggered by elevated levels of aminotransferases.

These novel data on anti-HCV dynamics in HIV-infected MSM are highly relevant, as they support a broader use of sensitive quantitative polymerase chain reaction–based HCV RNA testing in this high-risk population to prevent potential transmission during the early phase of AHC (as the patient is otherwise unaware of the HCV coinfection) and to allow early administration of antiviral therapy (which is likely associated with improved response rates). Indeed, Freeman et al conclude that screening for AHC is ideally performed using HCV RNA testing.

Note

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