Improved Treatment for Primary HIV Infection by Interferon-Alpha Therapy? Does HCV Treatment in HIV/HCV Coinfected Patients Help Us to Test This Hypothesis?

To the Editor—With great interest we read the recent study by Azzoni et al [1] and the accompanying editorial by McNamara and Collins [2]. The observed antiviral effects of interferon-α on human immunodeficiency virus (HIV) load have also been well documented in the large PEG-Interferon HIV/HCV Coinfection registration trials. Here, a drop of HIV RNA of nearly 1 log was seen in HIV viremic patients treated with pegylated (Peg)-interferon for hepatitis C virus (HCV) infection alone [3].

Recently we reported a small case series of 3 patients who were early and concomitantly treated with antiretroviral therapy (ART) and Peg-interferon/ribavirin for combined primary HIV and acute HCV; all 3 patients achieved a sustained virological response (SVR). Interestingly, 2 of the 3 patients who were incidentally treated very early in their acute infection also achieved relative HIV viral control after sexually transmitted infection (STI) [4]. In these 2 patients, HIV replication was contained even after ART had been interrupted, which was associated with strong HIV-specific CD8+ and CD4+ T-cell responses. This finding might be of particular interest with regard to the potential immune-mediated mechanisms leading to the observed decrease of the viral reservoir in some of the patients who were treated with Peg-interferon alfa in the study reported by Azzoni et al [1].

To our mind, the concept of treatment intensification to achieve a functional cure [4, 5] using Peg-interferon should be further investigated but using different settings.

First of all, we suggest the use of Peg-interferon overlapping with ART (facultatively over a longer period of time) instead of sequentially and as part of STI [1].

Also, the latest studies [6–8], as well as our small case series [4], would suggest that the concept of intensified ART should rather be tested in early primary HIV infection in order to restrict the viral reservoir.

Last but not least, thousands of HCV/HIV coinfected patients, many of them on ART, have been treated with Peg-interferon in the meantime, many of them in clinical trials [3, 9]. It would be a unique scientific opportunity to retrospectively analyze the serum HIV load, as well as integrated DNA of peripheral blood mononuclear cells of some of these patients by the novel, highly sensitive thyroid microsomal antigen based assays or measuring of 2-LTR circles [10] to test the hypothesis of HIV treatment intensification and lowering the viral reservoir using interferon [2] in more detail.

Notes

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Julian Schulze zur Wiesch1,2 and Jan van Lunzen1,2

1. Department of Internal Medicine, Infectious Diseases Unit, University Medical Center Hamburg-Eppendorf, Martinistrasse 52, 20251 Hamburg, Germany; and 2 Heinrich Pette Institute, Leibniz Institute for Experimental Virology, Martinistrasse 52, 20251 Hamburg, Germany

References


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Correspondence, current address: Prof Jan van Lunzen, MD, Dept of Internal Medicine, Infectious Diseases Unit,