Correspondence

Possibility of HIV-1 Resistance Mutations in Cerebrospinal Fluid From Persons Receiving Suppressive Therapy

To the Editor—Eden et al [1] reported the results of polymerase chain reaction (PCR) of low HIV load (mean, 121 copies/mL; range, 52–860 copies/mL) in cerebrospinal fluid (CSF) specimens from 10% of patients with a serum HIV load <50 copies/mL. The detection of low-level viremia in patients with fully suppressed infection usually results from a combination of occasional nonadherence and viral activation from a proviral DNA state. In accordance with this phenomenon, the detection of low copy numbers in CSF samples from a few patients is not surprising. However, the possibility also exists that some of the findings result from drug-resistant mutants arising from viral replication at other sites, with spillover into the CSF, or from the synthesis of new virus (currently speculative) in cells in the CSF. Eden et al state that "CSF viral load in our subjects with detectable HIV-1 RNA was too low to allow resistance analysis" [1, page 1824]. This statement is true with regard to recommendations for performance of drug resistance studies in the case of low viral load. In the present situation (with the assumption that viral load would be too low to lead to positive culture results), examination for drug resistance could be accomplished by PCR amplification, cloning of the products, sequencing of appropriate segments, and performing genotypic resistance analysis.

Stephen J. Seligman
Department of Microbiology and Immunology, New York Medical College, Valhalla

Reference

1. Eden A, Fuchs D, Hagberg L, et al. HIV-1 viral escape in cerebrospinal fluid of subjects on suppressive antiretroviral treatment. J Infect Dis **2010**; 202:1819–25.

Received 25 January 2011; accepted 28 February 2011.
Potential conflicts of interest: none reported

Correspondence: Stephen J. Seligman, MD, Department of Microbiology and Immunology, New York Medical College, Valhalla, NY 10595 (stephen_seligman@nymc.edu).

The Journal of Infectious Diseases 2011;204:174

0022-1899 (print)/1537-6613 (online)/2011/2041-0023$14.00
DOI: 10.1093/infdis/jir234