NEUROPSYCHIATRIC REACTION INDUCED BY ABACAVIR

To the Editor:

Abacavir is generally a well-tolerated antiretroviral drug. If side effects occur, they are seen soon after starting treatment (1) and are mostly moderate in intensity and transient. However, in 3% to 5% of patients, a hypersensitivity reaction occurs that may become life threatening if the drug is continued (1). We recently observed 2 patients who developed severe neuropsychiatric complications during treatment with abacavir. Thus far, there have been no reports of effects of abacavir on the central nervous system other than headache.

The first patient was a 44-year-old white woman with human immunodeficiency virus (HIV) infection, and hepatitis B and C virus coinfection. During initial treatment with nelfinavir, stavudine, and lamivudine, the only side effect was diarrhea, for which nelfinavir was replaced by abacavir. Within days after switching drugs, she complained of night sweats and depression. Results of liver tests were abnormal, and all antiretroviral treatments were stopped. She felt much better, and her depression disappeared. Two months later, when the liver test results had normalized, the same treatment regimen that included abacavir was restarted. She became depressed and had suicidal thoughts and episodes of anxiety with difficulty in breathing. She became very emotional and complained of nightmares, muscle pain, headache, nausea, loss of appetite, and weakness. She weighed 45 kg, and she was 1.63 m tall. Her CD4+ lymphocyte count was 247 x 10^9/L, and her viral load was 44,200 copies/mL. Two months after restarting the abacavir, her liver tests were again abnormal (aspartate aminotransferase, 123 U/L [normal, 14 to 36 U/L]; alanine transferase, 149 U/L [normal, 9 to 52 U/L]), but her CD4+ lymphocyte count was 435 x 10^9/L and her viral load was 453 copies/mL in plasma. She was not taking any other medication and maintained that she had no reason to be depressed.

The second patient was a 37-year-old white woman with coinfection of HIV and hepatitis C virus. She was initially treated with indinavir, lamivudine, didanosine, and zidovudine, and then ritonavir, saquinavir, and stavudine. She was later switched to zidovudine, lamivudine, and abacavir. From the start of this treatment, she had mood changes and became increasingly depressed with suicidal thoughts. A headache, which she had had for more than 1 year, progressed to severe migraine attacks with vomiting. Moreover, she complained of auditory hallucinations and anorexia. She weighed 49 kg, and her height was 1.64 m. Her CD4+ lymphocyte count was 270 x 10^9/L, and her viral load was below 50 copies/mL in plasma. There were mild abnormalities in liver test results before and after switching to the treatment that included abacavir. Several months later, her antiretroviral treatment was stopped, the migraine and psychiatric problems disappeared rapidly, and they did not reappear after starting nevirapine, zidovudine, and lamivudine.

These two case reports strongly suggest that abacavir may have adverse effects on the central nervous system. Such adverse effects have been reported mainly with efavirenz (2), but also with zidovudine (3) and nevirapine (4,5). Symptoms involving the central nervous system that are caused by antiretroviral drugs may be overlooked because neuropsychiatric disorders are frequent in persons with HIV infection.

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