Nevirapine Resistance Tied to Timing of Treatment

BY SHERRY BOSCHERT
San Francisco Bureau

SAN FRANCISCO — Pregnant women given a single dose of nevirapine during pregnancy to prevent vertical transmission of HIV were more likely to fail their own HIV treatment if it was started within 6 months of taking the nevirapine, Shahin Lockman, M.D., reported.

The randomized study of 218 women and 30 infants in Botswana found that, for the cohorts as a whole, the peripartum nevirapine dose led to higher rates of virologic failure in women and their infants, compared with women who received a peripartum dose of placebo and their infants, she said at the annual meeting of the Infectious Diseases Society of America.

Most resource-poor nations include nevirapine in their first-line treatment regimens for women and infants. More than 500,000 women each year are believed to receive single-dose nevirapine during pregnancy. This is a simple and affordable measure that halves the risk of vertical transmission, but previous data suggest that it can cause resistance to subsequent nevirapine therapy in 25%-70% of women and 40%-90% of infants, said Dr. Lockman of Brigham and Women's Hospital, Boston.

The current data came from the Mashi study of 12,000 HIV-infected women and 491 infants randomized to receive a single peripartum dose of nevirapine or placebo plus a short course of zidovudine starting at 34 weeks' gestation. Infants received 1 month of zidovudine if formula-fed or 6 months of zidovudine if breast-fed.

Women who developed an AIDS-defining illness or whose CD4 counts fell below 200 cells/mm^3 during or after delivery were offered combination antiretroviral therapy with nevirapine, zidovudine, and lamivudine.

Of the 218 women who started antiretroviral therapy and had adequate follow-up, 18% of 112 who previously received single-dose nevirapine and 5% of 106 who previously received single-dose placebo developed virologic failure by 6 months after starting the combination antiretroviral regimen.

At 12 months, 20% of the nevirapine group and 10% of the placebo group had developed virologic failure, defined as an HIV RNA load greater than 400 copies/mL. At 24 months, 28% of the nevirapine group and 11% of the placebo group had failed combination therapy. All differences were statistically significant.

Further analysis showed that the failures occurred in women who started their antiretroviral therapy within 6 months of receiving the single dose of nevirapine but not in women whose therapy began at least 6 months after the single nevirapine dose.

Of the 60 women who started combination antiretroviral therapy within 6 months of the peripartum dose, 42% of the 24 women in the nevirapine group and none of the 36 women in the placebo group developed virologic failure by 6 months. Virologic failure was seen at 12 and 24 months in 46% of the nevirapine group and 3% of the placebo group. All differences were highly significant.

Virologic failure rates did not differ significantly between the nevirapine and placebo groups in the 158 women who started combination therapy at least 6 months after the peripartum dose.

A total of 30 HIV-infected infants were given the same combination antiretroviral therapy. Of 15 infants whose mothers got single-dose nevirapine during pregnancy, 10 developed virologic failure during 2 years of follow-up, compared with 2 of 15 infants in the placebo group. Two infants in the nevirapine group and three in the placebo group died.

Infants in the nevirapine group showed a smaller increase in CD4 counts on combination therapy, compared with those in the placebo group. For mothers, the CD4 counts did not differ significantly between groups.

Only nevirapine exposure predicted the risk of virologic failure in women and infants. Other factors such as maternal age, clinic location, or infant feeding strategy (breast vs. formula) were not predictors. ■

HIV Notification, Counseling Soar With Rapid Testing Process

BY PATRICE WENDLING
Chicago Bureau

QUEBEC CITY — The use of rapid human immunodeficiency virus testing has had a profound impact on primary care settings in New Jersey, Denise Young, M.D., reported in a poster at the annual meeting of the North American Primary Care Research Group.

Because the test doesn't require a second visit to receive results, more HIV-positive patients are learning of their HIV status and receiving counseling.

New Jersey, which is fifth in the United States in cumulative reported AIDS cases and first in the proportion of women living with AIDS, introduced rapid HIV testing at publicly funded testing and counseling clinics in November 2003. It is now used in 90 sites throughout the state.

Testing has been done with the OraQuick Rapid HIV-1 Antibody Test (OraSure Technologies, Bethlehem, Pa.), which is approved by the Food and Drug Administration for use with whole blood. It is not approved for serum testing or stored samples.

A whole-blood specimen is obtained via fingerstick or venipuncture and inserted into the testing device, which resembles a home pregnancy test kit. Results are ready in 20 minutes.

This compares with 1-2 weeks for the most commonly used initial HIV test, the enzyme immune assay, confirmed with Western blot or immunofluorescence assay.

Prior to rapid testing, only 65% of patients in New Jersey returned for their results.

In contrast, 99.7% of 25,264 patients screened with rapid HIV testing got their results and received counseling, according to an analysis of state databases through July 21, 2005.

A total of 510 (2%) patients were HIV positive. Of these, 327 (64%) were newly diagnosed, reported Dr. Young, Robert Wood Johnson Medical School, New Brunswick, N.J., and her associates. Further analysis will determine if the seroprevalence at rapid test sites is the same as at traditional testing sites, or if newly diagnosed patients are getting into treatment services in a timely manner, she said.

With the newer assay, 99.7% of patients screened got their results and received counseling; that figure was only 65% prior to rapid testing.

It is hoped that by providing the opportunity to engage patients more quickly, the test will help decrease the mortality and morbidity associated with HIV infection.

Rapid testing is also being looked at as a way to lessen racial disparities that exist in New Jersey, which has one of the highest HIV infection rates in the nation, she said.

One in every 66 African Americans and 1 in every 171 Hispanics in New Jersey is living with HIV/AIDS, according the New Jersey Department of Health and Senior Services.

The state health department encourages the use of rapid testing for occupational exposures and in pregnant women to cut the risk of mother-to-child transmission, according to statements from the department. But there are trade-offs. More HIV-positive people will get their results, but some people will receive a false-positive result.

Postmarketing surveillance on the OraQuick test initiated by the Centers for Disease Control and Prevention in September 2003 has identified at least five HIV-infected patients who were incorrectly informed their rapid HIV test results were positive, according to the CDC's Web site.

Publicly funded sites in New Jersey follow CDC protocol, which recommends all preliminary positive results with rapid HIV testing be confirmed by Western blot or immunofluorescence assay, Dr. Young said. ■

Order HIV Test if Delusions Point to Methamphetamine Use

BY BETSY BATES
Los Angeles Bureau

SANTA BARBARA, CALIF. — Add delusions of parasitosis to the list of "red flags" for possible HIV infection, Marcus Conant, M.D., said at the annual meeting of the California Society of Dermatology and Dermatologic Surgery.

"Every patient I've seen in 2 years with delusions of parasitosis—and I've seen more and more and more of them—is on crystal meth," said Dr. Conant, a dermatologist in private practice in San Francisco.

What's the connection?

Crystal methamphetamine, a highly addictive drug, undermines judgment, heightens the sex drive, and is popular among populations where the incidence of HIV infection is rising, setting up a perfect formula for rapid HIV spread among users, he said.

Hallucinations are among the psychogenic properties of crystal methamphetamine use, driving many patients to a physician, with complaints of bugs crawling on or within the skin.

Dr. Conant explained that an estimated 1 million Americans are infected with HIV. About half are receiving treatment, a quarter do not require treatment yet or are not receiving drugs for other reasons, and the remaining quarter do not realize they have the disease.

The incidence is rising rapidly among women and minorities, as well as among young gay men who feel detached from the HIV-prevention messages heeded by older men who saw friends die very visible deaths in an era before the availability of antiretroviral drugs.

Crystal methamphetamine users may be having sex with individuals from any of those categories.

"You need to offer them an HIV test," he advised.

Other "red flags" include presence of any major sexually transmitted disease, including cutaneous STDs such as genital herpes, genital warts, and even crab lice, Dr. Conant said.

He tells patients, "The way you caught this is the way you catch HIV."

Opportunistic infections such as Kaposi's sarcoma, herpes zoster, and molluscum may also be tip-offs to HIV infection.

Systemic signs may include anemia, a low lymphocyte count, or low cholesterol.

Dr. Conant urged physicians to use their judgment.

"If you miss [suspecting HIV in] a 30-year-old man with a nipple ring and zoster on the chest, don't call me to testify that it was not below standard of care to offer him an HIV test," he said.

When patients express reluctance to have an HIV test, he suggests telling them that you want "a look at your immune function to make sure cancer or leukemia isn't causing your problem."

Many patients will then willingly agree to a CD4 count, which, if low, may be enough evidence to persuade them to consent to an HIV test. ■