Zinc Supplements Prevent Immune Decline in Chronic Substance Users

July 23, 2009 By David Evans

Chronic drug users who were treated with zinc supplements were less likely to see their CD4 counts fall below 200 than people taking a placebo, according to a study presented at the Fifth International AIDS Society (IAS) Conference on HIV Pathogenesis, Treatment and Prevention in Cape Town.

Low zinc levels are quite common in chronic substance users. In HIV disease, low zinc levels have been associated with poorer immune function. No studies, however, have prospectively looked at whether zinc supplements in this population might protect against immune decline.

To examine the usefulness of zinc supplements, Marianna Baum, PhD, RD, and her colleagues from the Stemper School of Public Health at Florida International University in Miami compared zinc supplements with a placebo in 231 HIV-positive active substance users. Women receiving zinc got a dose of 12 mg per day, and men got 15 mg per day.

Roughly 60 percent of the participants were taking antiretroviral (ARV) drugs, and both groups had similar CD4 cell levels—326 for those receiving zinc and 307 for those receiving a placebo. Adherence was measured in all patients. Immunologic failure was defined as having CD4 cell counts drop below 200.

For the first 12 months of the study there was no statistical difference between the two groups. By the 18th month, however, people on the placebo were four times as likely to reach immunologic failure as those who got zinc supplements. This result held up even when controlling for age, gender, lack of food, baseline CD4, viral load and ARV therapy.

The authors conclude that zinc supplements for HIV-positive substance users is a safe and effective means to protect the immune system.

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