Frequent Alcohol Use Might Hasten HIV Disease Progression

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HIV-positive people who consume two or more alcoholic drinks every day might experience faster disease progression than lighter drinkers, according to a study published online in the journal *AIDS Research and Human Retroviruses*.

Researchers have been struggling to measure alcohol's effect on HIV disease progression almost since the beginning of the epidemic. Some studies, especially those in animals or test tubes, have indicated that alcohol (ethanol) is directly toxic to CD4 cells. However, studies in humans have produced varying results.

To determine the direct effect of alcohol consumption on HIV disease progression, Marianna Baum, PhD, RD, from Florida International University in Miami, and her colleagues tracked CD4 counts and viral loads in 231 HIV-positive adults during a 30-month period. The group they studied was socially challenged in a number of ways. The average monthly income was less than $350, and nearly half were homeless during the study. Only 54 percent drank alcohol, however. Of those who drank, only 23 percent had two or more drinks per day. Those classified as heavy drinkers consumed four servings of alcohol on average per day. About 67 percent of the people in the study were on antiretroviral (ARV) medication.

Baum and her colleagues found that those who drank more than two servings of alcohol per day were far more likely to lose CD4 cells over time. People who drank heavily were 2.91 times more likely to have their CD4 counts drop below 200 than people who drank moderately, rarely or not at all. What's more, the increased risk for disease progression held true even when Baum's team factored in adherence, ARV use, viral load and crack-cocaine use.

The authors concede that factors beyond the ones they measured could have influenced the study's outcome, but the researchers state that their study provides some of the strongest evidence available that alcohol might affect disease progression.

"Our findings support the hypothesis that frequent alcohol intake, as well as the combination of frequent alcohol and crack-cocaine, accelerates HIV disease progression," write Baum and her colleagues.

"The effect of alcohol on CD4 cell decline appears to be independent of [ARV treatment], through

direct action on CD4 cells," they conclude. But they also point out that "alcohol and substance abuse may lead to unmeasured behaviors that promote HIV disease progression."

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