Anti-Alcoholism Drug Wakes Cells Latently Infected With HIV

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The common anti-alcoholism drug Antabuse (disulfiram) prompts cells latently infected with HIV to replicate, a finding that could contribute to a strategy for curing the virus, aidsmap reports. Publishing their findings in The Lancet, researchers gave various doses of Antabuse to 30 HIV-positive people who had CD4 counts over 350 and who had had an undetectable viral load for at least three years thanks to antiretroviral treatment.

Three groups of 10 participants received a respective 500 milligrams, 1,000 mg and 2,000 mg of Antabuse daily for three days. The researchers took blood samples at a screening appointment, a few days before the few dose, and immediately before the first dose. After the first dose, samples were taken at hours two, eight and 24; 24 hours after the second dose; at hours two, eight and 24 after the third dose; and seven and 30 days after the third dose.

The participants, on average, saw a 60 to 90 percent increase in unspliced HIV RNA in CD4 cells during the study. This is likely an indication of low-level viral replication in some immune cells. The highest increase of unspliced RNA was seen in the 1,000 mg group, which saw a 90 percent increase. The unspliced RNA increased steadily during the study, even long after the third dose. The tests taken at the 30-day mark showed that the unspliced RNA levels were 110 percent higher in the 500 mg and 2,000 mg groups and 150 percent higher in the 1,000 mg dose group.

Ten low-grade side effects, mostly mild nausea, headache or light-headedness, were reported among those who took the 1,000 mg and 2,000 mg doses.

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