Naltrexone Reduces Heavy Drinking, Smoking

BY MIRIAM E. TUCKER

Naltrexone reduced heavy drinking in a 4-week exploratory study of 78 nicotine-dependent, nonalcoholic adults who were participating in a smoking cessation program.

In the study, naltrexone had only a limited overall effect on alcohol consumption and did not significantly affect smoking quit rates for the group as a whole. However, the opioid antagonist did appear to have a significant impact on drinking—and to a lesser degree, smoking—among the 36 patients classified as "heavy drinkers," said Andrea King, Ph.D., of the department of psychiatry at the University of Chicago, and her associates.

Naltrexone is indicated for the treatment of alcohol dependence and for the blockade of the effects of exogenously administered opioids.

"A historically treatment-resistant group, i.e. social heavy/binge drinker-

Among the heavy drinkers who received the naltrexone, the investigators found a tendency toward higher smoking quit rates, compared with placebo (80% vs. 52%).

smokers, may selectively respond to naltrexone to improve both smoking cessation and alcohol drinking outcomes, but further research is warranted," Dr. King and her associates wrote in the article slated to be published in the June issue of Alcoholism: Clinical & Experimental Research (doi:10.1111/j.1530-0277.2009.00925.x).

The 78 participants were selected from a pool of 110 individuals enrolled in a double-blind clinical trial investigating the efficacy of naltrexone in a smoking cessation program that also included six 45-minute counseling sessions over 4 weeks, along with nicotine patch treatment.

All 78 individuals were current drinkers—having consumed at least one alcoholic drink during the 2-week baseline period prior to study enrollment—but did not meet criteria for current or past alcohol dependence. A total of 44 were randomized to receive placebo and the other 34 to naltrexone, at dosages of 25 mg/day beginning 3 days prior to the smoking quit date, then at 50 mg/day for 8 weeks.

The weekly number of alcoholic drinks consumed overall was lower among those receiving naltrexone, but not significantly so. The largest difference occurred during the second week after the smoking quit date, with an average of 3.6 drinks consumed in the naltrexone group, compared with 6.3 drinks in the placebo group. There was no difference by the third and fourth weeks, however.

Among the 36 "heavy" drinkers (defined as consuming five or more drinks for men or four drinks for women on one occasion during the 2-week pre-enrollment period), heavy drinking at week 2 occurred in 10% of the 15 receiving naltrexone, compared with 40% of the 21 on placebo.

Among the heavier drinkers only, naltrexone significantly attenuated weekly heavy drinking throughout the 4-week interval, compared with placebo (odds ratio 0.24). The overall number of drinks per day was also significantly reduced from baseline among heavy drinkers taking naltrexone, from an average of 4.5 drinks/day to 3.2/day during the treatment period, compared with 4.0 to 3.6 drinks/day in the placebo group.

Smoking quit rates were not significantly different between the naltrexone and placebo groups overall, at 71% and 66%, respectively. However, among the heavy drinkers only there was a tendency toward higher smoking quit rates, compared with placebo (80% vs. 52%). At the end of the first month, those who quit smoking were less likely to drink heavily whether or not they received naltrexone, Dr. King and her associates noted.

Regimen adherence was similar between the naltrexone and placebo groups. However, the better the naltrex-

one group adhered, the less likely they were to drink heavily by the end of the first month.

This association was not seen in the placebo group.

Generally side effects were reported more often in the naltrexone group than in the placebo group, but not among the heavy drinkers.

The one exception was that nausea was reported more often among the naltrexone patients in the heavy-drinking group.

It is possible that naltrexone-related nausea may be involved in the reduction in heavy drinking, but the current study design did not allow for distinguishing between nonspecific nausea and nausea related to drinking alcohol, the investigators commented.

Levels of the liver enzymes aspartate aminotransferase (AST) and alanine transaminase (ALT) did not differ between the naltrexone and placebo group at baseline or at 1 month of treatment, nor did the percentage of individuals with levels out of the normal range: 3.6% of the naltrexone group and 2.7% of the placebo group were outside the normal range for AST at week 2, as were 10.7% and 18.9%, respectively, for ALT. "These findings support the hepatic safety of naltrexone in people with nicotine dependence and may be reassuring to treatment providers concerned about potential liver toxicity with naltrexone," Dr. King and her associates said.

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The authors reported having no conflicts of interest. ■

Alcohol Abuse May Lead to Depression

BY MARY ANN MOON

Alcohol abuse and dependence appear to lead to major depression, rather than vice versa, according to a collection of statistical analyses reported in the Archives of General Psychiatry.

Researchers used data from the ChristChurch Health and Development Study, a cohort of 635 boys and 630 girls born in urban New Zealand in 1977 and followed through age 25, to examine the well-known relationship between alcohol abuse or dependence and depression. They used several advanced statistical modeling methods to explore possible causal pathways between the two disorders, said David M. Fergusson, Ph.D., and his associates at the University of Otago, Christchurch.

Subjects who abused alcohol were nearly twice as likely to fulfill criteria for major depression as were those who did not abuse alcohol, the statistical analyses showed.

At age 24-25 years, approximately 14% of the sample met DSM-IV criteria for alcohol dependence (6%) or abuse (8%), and 14% met criteria for major depression.

At all ages, there were clear and significant trends for alcohol abuse to be associated with depression, such that subjects who abused alcohol were nearly twice as likely to fulfill criteria for major depression as were those who did not abuse alcohol. In contrast, major depression did not appear to predispose subjects to alcohol abuse.

In addition, the relationship between alcohol abuse and depression was not found to arise from some common factor underlying both disorders, Dr. Fergusson and his colleagues said (Arch. Gen. Psych. 2009;66:260-6).

It is possible that the use of alcohol may trigger a response in genetically susceptible individuals that raises the risk of depression. Other research also suggests that alcohol's action as a depressant may lead to periods of depressed affect among drinkers, the investigators added.

The researchers noted that these results contradict those of previous studies, some of which have suggested that the causal relationship moves in the opposite direction because some people with depressive symptoms self-medicate with alcohol.

The current study might be more able to detect the true direction of the causal relationship because of its use of numerous complex statistical methods as well as its use of repeated structured mental health assessments over time, Dr. Fergusson and his associates said. ■