

AntiAlcohol Drug Reduces Cocaine Use

VISN 1 MIRECC researchers have completed a major study showing that an anti-alcohol drug combats cocaine abuse even when the patients are not also alcohol abusers. Cocaine dependent patients taking disulfiram (Antabuse) showed greater reductions in cocaine use than those taking placebo (sugar pills) especially if they did not also have an alcohol abuse diagnosis. Disulfiram is one of only two drugs available in the U.S. that have FDA approval for treatment of alcoholism. It works by converting alcohol into a more toxic chemical, acetaldehyde, so that patients get a severe chemical shock if they drink while taking the medicine. Disulfiram was first used for cocaine dependence in patients who abused both alcohol and cocaine. Since over half of treatment seeking cocaine abusers also abuse alcohol, the original concept was to reduce cocaine relapse by eliminating the alcohol use that frequently precedes cocaine use. Prior to the current study, three clinical trials have shown that disulfiram reduces cocaine use. The current study included 121 patients around half of whom were not alcohol abusers. Hence, this is the first study with a sufficient number of non-alcoholic cocaine abusers to see if disulfiram has a direct effect on cocaine use independent of its impact on drinking. Other studies have shown that treatment with disulfiram increases the depression and irritability often associated with excessive cocaine use but that patients do not experience the strongly unpleasant symptoms of vomiting and flushing seen when alcohol is used with the drug. The major drawback of disulfiram with alcoholism is that patients are reluctant to take the medicine regularly because they fear the negative effects if they drink. In contrast, the anti-cocaine effects of disulfiram are much milder and cocaine abusers tend to be more willing to take the medicine. As this is the fourth study to support use of disulfiram for cocaine abuse, multi-site trials are now being planned to confirm its efficacy and safety in general clinical settings. The research group was led by MIRECC researcher, Kathleen Carroll and included Yale researchers Lisa Fenton, Samuel Ball, Charla Nich, Tami Frankforter, Julia Shi and MIRECC researcher Bruce Rounsaville.