

Disulfiram appears to be effective in reducing cocaine dependence

Clinical question Is disulfiram effective in reducing cocaine dependence?

Bottom line Disulfiram (Antabuse) appears to be somewhat effective in reducing cocaine dependence. Although cognitive behavioural therapy is also effective, there seems to be no additional benefit to combining the two treatments. More than half the patients enrolled in this study failed to complete the 12-week treatment protocol.

Synopsis Disulfiram may be effective in the treatment of cocaine dependence, whether or not patients are also alcohol-dependent. A total of 121 patients (mean age 34.6 years) with cocaine dependence (Diagnostic and Statistical Manual of Mental Disorders, 4th edition, DSM-IV) were randomised (uncertain allocation concealment) to one of four treatment groups: disulfiram 250mg per day plus cognitive behavioural therapy (CBT); disulfiram 250mg per day plus interpersonal psychotherapy (IPT); placebo plus CBT; or placebo plus IPT. Fifty-two per cent of the patients also met DSM-IV criteria for current alcohol abuse or dependence. Outcomes were assessed weekly for 12 weeks by individuals blinded to treatment group assignment. Cocaine use was measured by self-report and urine toxicology screening tests. Follow-up information was obtained for 84 per cent of the patients after 12 weeks, but only 44 per cent completed the 12-week treatment programme. Despite this high dropout

rate, using intention-to-treat analysis there was a statistically significant general reduction in the frequency of cocaine use over time for all four treatment groups. Subjects assigned to disulfiram and CBT reduced their cocaine use significantly more than those assigned to placebo and IPT, respectively ($P < 0.01$). There was no statistically significant benefit found for combining disulfiram and CBT compared with either treatment alone. Patients who abstained from alcohol use were more likely to benefit from treatment. The authors do not report their results in a way that is useful for calculating numbers needed to treat for a clinically significant benefit to occur. Results of urine toxicology screening tests were generally consistent with self-reported data. Adverse effects of disulfiram were mild and were not statistically different from those reported by patients taking placebo.

Level of evidence 1b- (individual randomised controlled trial with a single result with wide confidence interval).

Reference Carroll KM, Fenton LR, Ball SA, et al. Efficacy of disulfiram and cognitive behavior therapy in cocaine-dependent outpatients. A randomized placebo-controlled trial. *Archives of General Psychiatry* 2004; 61:264-72.

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