Open-label trial of lithium carbonate for the management of cannabis withdrawal in humans

Chief Investigator Name: Dr Adam Winstock
Start Year: 2005
End Year: 2006
Total funding: $42,000

Other Investigators: Prof Jan Copeland, Toby Lea
Priority area: Cannabis treatment
Grant Type: Research grant

Admin Institution: Sydney South West AHS

Lay description
To date, there has been an absence of any clinically validated treatments to manage cannabis withdrawal. This study was an open-label trial exploring the utility of lithium carbonate for the management of cannabis withdrawal symptoms in treatment-seeking adult humans. In total, 20 participants were recruited to the study. All met DSM-IV cannabis-dependence criteria and had been smoking cannabis daily or almost daily for a mean of nine years. Participants were admitted to an inpatient detoxification facility and prescribed lithium 500 mg b.d. for 7 days. Cannabis withdrawal was assessed daily with the Marijuana Withdrawal Checklist (MWC). Two participants were withdrawn from the trial because of possible adverse effects. Sixty percent of participants completed the 7-day treatment program. Follow-up was conducted at a mean of 107 days following treatment. The mean percentage of days abstinent in the period between treatment cessation and follow-up was 87.57%. Twenty-nine percent of participants (n = 5) reported continuous abstinence that was biochemically verified at follow-up. Significant reductions in symptoms of depression and anxiety and cannabis-related problems were also reported.

Research achievements
• This study provides evidence for the potential clinical utility and safety of lithium in the management of cannabis withdrawal.
• As a result of this study, we were successful in securing funding from NHMRC to conduct a double-blind, randomised, placebo-controlled trial of lithium for cannabis withdrawal. The trial will commence recruitment before the close of 2009.

Expected future outcomes
• Results from the randomised controlled trial should be available at the close of 2011.

Publications & Key Presentations

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