JAMA Intern Med. 2019 Jul 15;179(9):1242-1253. doi: 10.1001/jamainternmed.2019.1993.
Online ahead of print.

Nabiximols for the Treatment of Cannabis Dependence: A Randomized Clinical Trial

Nicholas Lintzeris [1 2], Anjali Bhardwaj [1 2], Llewellyn Mills [1 2], Adrian Dunlop [3 4], Jan Copeland [5], Iain McGregor [6], Raimondo Bruno [7], Jessica Gugusheff [1 2], Nghi Phung [8], Mark Montebello [1], Therese Chan [1], Adrienne Kirby [9], Michelle Hall [3], Meryem Jefferies [8], Jennifer Luksza [8], Marian Shanahan [10], Richard Kevin [3], David Allsop [6], Agonist Replacement for Cannabis Dependence (ARCD) study group

Affiliations

PMID: 31305874 PMCID: PMC6632121 (available on 2020-07-15)
DOI: 10.1001/jamainternmed.2019.1993
Free PMC article

Abstract

Importance: There are no effective medications for treating dependence on cannabis.

Objective: To examine the safety and efficacy of nabiximols in the treatment of patients with cannabis dependence.

Design, setting, and participants: This parallel double-blind randomized clinical trial comparing nabiximols with placebo in a 12-week, multisite outpatient study recruited participants from February 3, 2016, to June 14, 2017, at 4 outpatient specialist alcohol and drug treatment services in New South Wales, Australia. Participants had cannabis dependence (as defined by the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision) and were seeking treatment, were nonresponsive to prior treatment attempts, were 18 to 64 years of age, had no other substance use disorder, had no severe medical or psychiatric conditions, were not pregnant, were not mandated by a court to undergo treatment, and provided informed consent. Results for primary efficacy measures and all secondary outcomes were obtained using a modified intention-to-treat data set.

Interventions: Participants received 12-week treatment involving weekly clinical reviews, structured counseling, and flexible medication doses-up to 32 sprays daily (tetrahydrocannabinol, 86.4 mg, and cannabidiol, 80 mg), dispensed weekly.

Main outcomes and measures: Primary outcome was self-reported number of days using illicit cannabis during the 12-week period. Other outcomes included alternate cannabis use parameters (periods of abstinence, withdrawal, cravings, and problems), safety parameters (adverse events and aberrant medication use), health status, other substance use, and treatment retention.

Results: A total of 128 participants (30 women and 98 men; mean [SD] age, 35.0 [10.9] years) were randomized and received at least 1 dose of study medication. Participants had used a mean (SD) of 2.3 (2.1) g of cannabis on a mean (SD) of 25.7 (4.5) days in the past 28 days. Treatment

retention was comparable for the 2 groups (placebo, 30 of 67 participants [44.8%]; nabiximols, 30 of 61 participants [49.2%]), and both groups used similar mean (SD) doses (placebo, 18.5 [9.5] sprays daily; nabiximols, 17.6 [9.5] sprays daily, equivalent to a mean [SD] of 47.5 [25.7] mg of tetrahydrocannabinol and 44.0 [23.8] mg of cannabidiol). For the primary end point, the placebo group reported significantly more days using cannabis during the 12 weeks (mean [SD], 53.1 [33.0] days) than the nabiximols group (mean [SD], 35.0 [32.4] days; estimated difference, 18.6 days; 95% CI, 3.5-33.7 days; P = .02). Both groups showed comparable improvements in health status, with no substantial changes in other substance use. Medication was well tolerated with few adverse events.

Conclusions and relevance: This study demonstrates that cannabinoid agonist treatment, in this case using nabiximols, in combination with psychosocial interventions is a safe approach for reducing cannabis use among individuals with cannabis dependence who are seeking treatment.

Trial registration: anzctr.org.au Identifier: ACTRN12616000103460.

LinkOut - more resources

Full Text Sources

Silverchair Information Systems

Other Literature Sources

Faculty Opinions

Miscellaneous

NCI CPTAC Assay Portal