Update on medical cannabis

By Peter Grinspoon, M.D.
MGH Chelsea
Doctors For Cannabis Regulation

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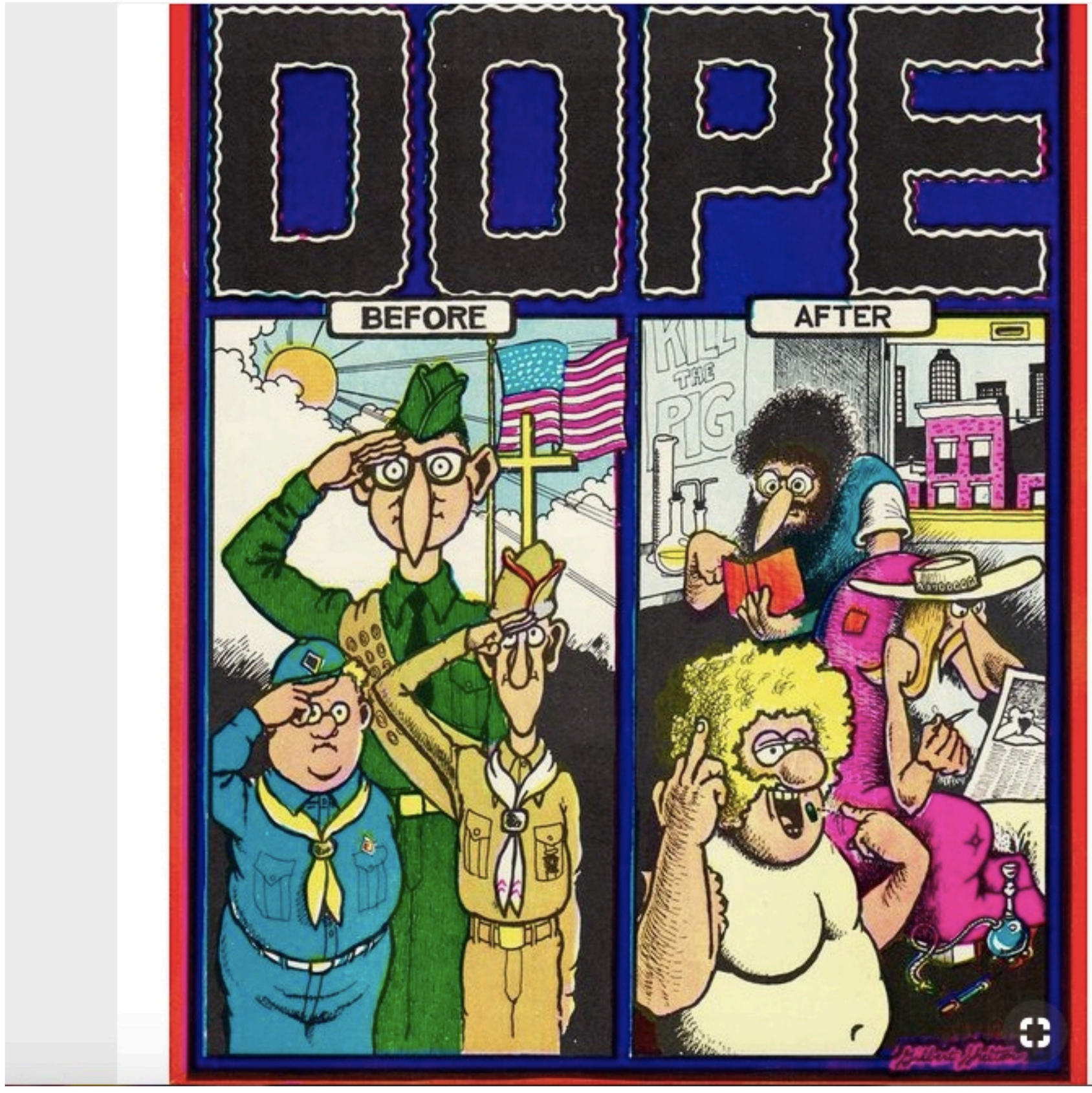
DOPE
BEFORE
AFTER
KILL THE PIG

Research is just starting to take off in U.S; It has been stymied by the government

1) **NIDA primarily funded research into HARM but not into BENEFITS for last 40 years**

2) **Currently classified as schedule one controlled substance**

3) **Difficult to double blind — people know if they are stoned!**

4) **Other countries are taking the lead: Israel, Canada, Europe**

Publication

The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research

Released: January 12, 2017

REPORT AT A GLANCE

- Report Highlights (PDF)
- Chapter Highlights (PDF)
- Committee Conclusions (PDF)
- Public Release Slides (PDF)
- Watch the report release webinar (HTML)
- Press Release (HTML)

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In one of the most comprehensive studies of recent research on the health effects of recreational and therapeutic cannabis use, a new report from the National Academies of Sciences, Engineering, and Medicine offers a rigorous review of relevant scientific research published since 1999. This report summarizes the current state of evidence regarding what is known about the health impacts of cannabis and cannabis-derived products.

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Details

Activity:	Health Effects of Marijuana: An Evidence Review and Research Agenda
Type:	Consensus Report
Topics:	Children and Families, Public Health, Substance Use and Mental Health

THERAPEUTIC EFFECTS

In adults with chemotherapy-induced nausea and vomiting, oral cannabinoids are effective antiemetics.

In adults with chronic pain, patients who were treated with cannabis or cannabinoids are more likely to experience a clinically significant reduction in pain symptoms.

In adults with multiple sclerosis (MS)-related spasticity, short-term use of oral cannabinoids improves patient-reported spasticity symptoms.

For these conditions, the effects of cannabinoids are modest; for all other conditions evaluated, there is inadequate information to assess their effects.

Information for Health Care Professionals: Cannabis (marihuana, marijuana) and the cannabinoids

(PDF Version - 2,236 K)

Dried or fresh plant and oil for administration by ingestion or other means
Psychoactive agent

This document has been prepared by the Cannabis Legalization and Regulation Branch at Health Canada to provide information on the use of cannabis (marihuana) and cannabinoids for medical purposes. This document is a summary of peer-reviewed literature and international reviews concerning potential therapeutic uses and harmful effects of cannabis and cannabinoids. It is not meant to be comprehensive and should be used as a complement to other reliable sources of information. This document is not a systematic review or meta-analysis of the literature and has not rigorously evaluated the quality and weight of the available evidence nor has it graded the level of evidence. Despite the similarity of format, it is not a Drug Product Monograph, which is a document which would be required if the product were to receive a Notice of Compliance authorizing its sale in Canada.

This document should not be construed as expressing conclusions or opinions from Health Canada about the appropriate use of cannabis (marihuana) or cannabinoids for medical purposes.

Cannabis is not an approved therapeutic product, unless a specific cannabis product has been issued a drug identification number (DIN) and a notice of compliance (NOC). The provision of this information should not be interpreted as an endorsement of the use of this product, or cannabis and cannabinoids generally, by Health Canada.

Prepared by Health Canada

Date of latest version: Spring 2018

- https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/information-medical-practitioners/information-health-care-professionals-cannabis-cannabinoids.html

J Clin Rheumatol. 2018 Aug;24(5):255-258. doi: 10.1097/RHU.0000000000000702.

Medical Cannabis for the Treatment of Fibromyalgia.

Habib G, Artul S.

Abstract

BACKGROUND:

Fibromyalgia is a chronic pain syndrome, characterized by chronic musculoskeletal pain, fatigue, and mood disturbances. There are nearly no data on the effect of medical cannabis (MC) treatment on patients with fibromyalgia.

METHODS:

Data were obtained from the registries of 2 hospitals in Israel (Laniado Hospital and Nazareth Hospital) on patients with a diagnosis of fibromyalgia who were treated with MC. After obtaining patient consent, demographic, clinical, and laboratory parameters were documented. All the patients also completed the Revised Fibromyalgia Impact Questionnaire regarding the period before and after MC treatment.

RESULTS:

Thirty patients were identified, and 26 patients were included in the study. There were 19 female patients (73%), and the mean age of the study group was 37.8 ± 7.6 years. The mean dosage of MC was 26 ± 8.3 g per month, and the mean duration of MC use was 10.4 ± 11.3 months. After commencing MC treatment, all the patients reported a significant improvement in every parameter on the questionnaire, and 13 patients (50%) stopped taking any other medications for fibromyalgia. Eight patients (30%) experienced very mild adverse effects.

CONCLUSIONS:

Medical cannabis treatment had a significant favorable effect on patients with fibromyalgia, with few adverse effects.

Marijuana for Symptoms of PTSD in U.S. Veterans

Category: MAPS-Sponsored Medical Marijuana Research

Placebo-Controlled, Triple-Blind, Randomized Crossover Pilot Study of the Safety and Efficacy of Four Different Potencies of Smoked Marijuana in 76 Veterans with Chronic, Treatment-Resistant Posttraumatic Stress Disorder (PTSD)

Site Principal Investigator: Sue Sisley, M.D.

Coordinating Principal Investigator: Marcel Bonn-Miller, Ph.D.

Co-Investigator: Paula Riggs, M.D.

This study has completed enrollment.

This study will explore whether smoked marijuana can help reduce PTSD symptoms in 76 U.S. veterans with chronic, treatment-resistant posttraumatic stress disorder (PTSD). Participants must be U.S. veterans, men or women, aged 18 or older with a diagnosis of PTSD that has not improved after trying either medication or psychotherapy.

$2,156,000 estimated study budget · $2,156,000 grant awarded by the State of Colorado

- Study Protocol (Amendment 8, Version 2: December 4, 2017)
- PRESS RELEASE: Statement on the Adequacy of Marijuana Provided by NIDA for Phase 2 Clinical Trials for PTSD in Veterans (March 17, 2017)
- PRESS RELEASE: First Clinical Trial of Marijuana for PTSD in Veterans Nearly Completes Enrollment (August 9, 2018)

Clin Gastroenterol Hepatol. 2013 Oct;11(10):1276-1280.e1. doi: 10.1016/j.cgh.2013.04.034. Epub 2013 May 4.

Cannabis induces a clinical response in patients with Crohn's disease: a prospective placebo-controlled study.

Naftali T[1], Bar-Lev Schleider L, Dotan I, Lansky EP, Sklerovsky Benjaminov F, Konikoff FM.

⊕ Author information

Abstract

BACKGROUND & AIMS: The marijuana plant Cannabis sativa has been reported to produce beneficial effects for patients with inflammatory bowel diseases, but this has not been investigated in controlled trials. We performed a prospective trial to determine whether cannabis can induce remission in patients with Crohn's disease.

METHODS: We studied 21 patients (mean age, 40 ± 14 y; 13 men) with Crohn's Disease Activity Index (CDAI) scores greater than 200 who did not respond to therapy with steroids, immunomodulators, or anti-tumor necrosis factor-α agents. Patients were assigned randomly to groups given cannabis, twice daily, in the form of cigarettes containing 115 mg of Δ9-tetrahydrocannabinol (THC) or placebo containing cannabis flowers from which the THC had been extracted. Disease activity and laboratory tests were assessed during 8 weeks of treatment and 2 weeks thereafter.

RESULTS: Complete remission (CDAI score, <150) was achieved by 5 of 11 subjects in the cannabis group (45%) and 1 of 10 in the placebo group (10%; P = .43). A clinical response (decrease in CDAI score of >100) was observed in 10 of 11 subjects in the cannabis group (90%; from 330 ± 105 to 152 ± 109) and 4 of 10 in the placebo group (40%; from 373 ± 94 to 306 ± 143; P = .028). Three patients in the cannabis group were weaned from steroid dependency. Subjects receiving cannabis reported improved appetite and sleep, with no significant side effects.

CONCLUSIONS: Although the primary end point of the study (induction of remission) was not achieved, a short course (8 weeks) of THC-rich cannabis produced significant clinical, steroid-free benefits to 10 of 11 patients with active Crohn's disease, compared with placebo, without side effects. Further studies, with larger patient groups and a nonsmoking mode of intake, are warranted. ClinicalTrials.gov, NCT01040910.

Neuro Endocrinol Lett. 2014;35(3):198-201.

Clinical endocannabinoid deficiency (CECD) revisited: can this concept explain the therapeutic benefits of cannabis in migraine, fibromyalgia, irritable bowel syndrome and other treatment-resistant conditions?

Smith SC, Wagner MS.

Abstract

OBJECTIVES: Ethan B. Russo's paper of December 1, 2003 explored the concept of a clinical endocannabinoid deficiency (CECD) underlying the pathophysiology of migraine, fibromyalgia, irritable bowel syndrome and other functional conditions alleviated by clinical cannabis.

METHODS: Available literature was reviewed, including searches via the National Library of medicine database and other sources.

RESULTS: A review of the literature indicates that significant progress has been made since Dr. Ethan B. Russo's landmark paper, just ten years ago (February 2, 2004). Investigation at that time suggested that cannabinoids can block spinal, peripheral and gastrointestional mechanisms that promote pain in headache, fibromyalgia, irritable bowel syndrome and muscle spasm.

CONCLUSION: Subsequent research has confirmed that underlying endocannabinoid deficiencies indeed play a role in migraine, fibromyalgia, irritable bowel syndrome and a growing list of other medical conditions. Clinical experience is bearing this out. Further research and especially, clinical trials will further demonstrate the usefulness of medical cannabis. As legal barriers fall and scientific bias fades this will become more apparent.

EUROPEAN JOURNAL OF INTERNAL MEDICINE

March 2018 Volume 49, Pages 44–50

Epidemiological characteristics, safety and efficacy of medical cannabis in the elderly

Ran Abuhasira[1], Lihi Bar-Lev Schleider[1], Raphael Mechoulam, Victor Novack

DOI: https://doi.org/10.1016/j.ejim.2018.01.019 |

⊞ Article Info

Highlights

- The most common indications for cannabis in the elderly were pain and cancer.
- At six months of cannabis treatment, 93.7% reported improvement in their condition.
- At six months of treatment, the number of reported falls was significantly reduced.
- Medical cannabis decreased the use of prescription medicines, including opioids.

Abstract

Introduction

There is a substantial growth in the use of medical cannabis in recent years and with the aging of the population, medical cannabis is increasingly used by the elderly. We aimed to assess the characteristics of elderly people using medical cannabis and to evaluate the safety and efficacy of the treatment.

Methods

A prospective study that included all patients above 65 years of age who received medical cannabis from January 2015 to October 2017 in a specialized medical cannabis clinic and were willing to answer the initial questionnaire. Outcomes were pain intensity, quality of life and adverse events at six months.

Results

During the study period, 2736 patients above 65 years of age began cannabis treatment and answered the initial questionnaire. The mean age was 74.5 ± 7.5 years. The most common indications for cannabis treatment were pain (66.6%) and cancer (60.8%). After six months of treatment, 93.7% of the respondents reported improvement in their condition and the reported pain level was reduced from a median of 8 on a scale of 0–10 to a median of 4. Most common adverse events were: dizziness (9.7%) and dry mouth (7.1%). After six months, 18.1% stopped using opioid analgesics or reduced their dose.

Conclusion

Our study finds that the therapeutic use of cannabis is safe and efficacious in the elderly population. Cannabis use may decrease the use of other prescription medicines, including opioids. Gathering more evidence-based data, including data from double-blind randomized-controlled trials, in this special population is imperative.

Journal of Clinical Oncology®
An American Society of Clinical Oncology Journal

ORIGINAL REPORTS | Complementary Therapy

Medical Oncologists' Beliefs, Practices, and Knowledge Regarding Marijuana Used Therapeutically: A Nationally Representative Survey Study

Ilana M. Braun, Alexi Wright, John Peteet, Fremonta L. Meyer, David P. Yuppa, Dragana Bolcic-Jankovic, ...

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Results

The overall response rate was 63%. Whereas only 30% of oncologists felt sufficiently informed to make recommendations regarding MM, 80% conducted discussions about MM with patients, and 46% recommended MM clinically. Sixty-seven percent viewed it as a helpful adjunct to standard pain management strategies, and 65% thought MM is equally or more effective than standard treatments for anorexia and cachexia.

Conclusion

Our findings identify a concerning discrepancy between oncologists' self-reported knowledge base and their beliefs and practices regarding MM. Although 70% of oncologists do not feel equipped to make clinical recommendations regarding MM, the vast majority conduct discussions with patients about MM and nearly one-half do, in fact, recommend it clinically. A majority believes MM is useful for certain indications. These findings are clinically important and suggest critical gaps in research, medical education, and policy regarding MM.

Eur J Intern Med. 2018 Mar;49:37-43. doi: 10.1016/j.ejim.2018.01.023.

Prospective analysis of safety and efficacy of medical cannabis in large unselected population of patients with cancer.

Bar-Lev Schleider L[1], Mechoulam R[2], Lederman V[3], Hilou M[3], Lencovsky O[4], Betzalel O[3], Shbiro L[4], Novack V[5].

⊕ Author information

Abstract

BACKGROUND: Cancer is a major public health problem as the leading cause of death. Palliative treatment aimed to alleviate pain and nausea in patients with advanced disease is a cornerstone of oncology. In 2007, the Israeli Ministry of Health began providing approvals for medical cannabis for the palliation of cancer symptoms. The aim of this study is to characterize the epidemiology of cancer patients receiving medical cannabis treatment and describe the safety and efficacy of this therapy.

METHODS: We analyzed the data routinely collected as part of the treatment program of 2970 cancer patients treated with medical cannabis between 2015 and 2017.

RESULTS: The average age was 59.5±16.3years, 54.6% women and 26.7% of the patients reported previous experience with cannabis. The most frequent types of cancer were: breast (20.7%), lung (13.6%), pancreatic (8.1%) and colorectal (7.9%) with 51.2% being at stage 4. The main symptoms requiring therapy were: sleep problems (78.4%), pain (77.7%, median intensity 8/10), weakness (72.7%), nausea (64.6%) and lack of appetite (48.9%). After six months of follow up, 902 patients (24.9%) died and 682 (18.8%) stopped the treatment. Of the remaining, 1211 (60.6%) responded; 95.9% reported an improvement in their condition, 45 patients (3.7%) reported no change and four patients (0.3%) reported deterioration in their medical condition.

CONCLUSIONS: Cannabis as a palliative treatment for cancer patients seems to be well tolerated, effective and safe option to help patients cope with the malignancy related symptoms.

Medical News & Perspectives

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November 28, 2018

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States Move to Substitute Opioids With Medical Marijuana to Quell Epidemic

Rebecca Voelker, MSJ

Article Information

JAMA. Published online November 28, 2018. doi:10.1001/jama.2018.17329

As state governments grapple with ways to curb the opioid epidemic in their own backyard, New York and Illinois took a relatively new approach last summer by modifying existing medical marijuana laws to allow certain patients to substitute their opioids with medicinal cannabis.

In each state, patients with an opioid prescription or a condition for which an opioid is indicated can instead buy cannabis at a registered dispensary with a physician's written certification.

After he okayed new regulations, New York State Department of Health Commissioner Howard Zucker, MD, JD, said in a statement that the action "offers providers another treatment option, which is a critical step in combatting the deadly opioid epidemic affecting people across the state." In Illinois, Gov Bruce Rauner said the law he signed into effect in August is "creating an alternative to opioid addiction."

J Addict Med. 2018 Jul/Aug;12(4):315-320. doi: 10.1097/ADM.0000000000000406.

Does Cannabis Use Influence Opioid Outcomes and Quality of Life Among Buprenorphine Maintained Patients? A Cross-sectional, Comparative Study.

Bagra I[1], Krishnan V, Rao R, Agrawal A.

Author information

Abstract

OBJECTIVES: Use of various psychoactive substances can influence outcomes of patients on opioid agonist treatment (OAT). While use of alcohol and cocaine has shown to adversely affect OAT results, associated cannabis use shows mixed results. This study aimed to assess the pattern of cannabis use among opioid-dependent patients maintained on buprenorphine. Additionally, the study compared the dose of buprenorphine, opioid-related craving and withdrawals, productivity, and also quality of life between those with and without recent (past 90-day) cannabis use.

METHODS: We collected data on demographic and drug use details in 100 randomly selected adult male patients attending a community drug treatment clinic, who were stabilized on buprenorphine for more than 3 months. Other measures included scores on World Health Organization (WHO)-Alcohol, Smoking and Substance Involvement Screening Tool and WHO-Quality of Life-Brief (WHOQOL-Bref) version.

RESULTS: The average duration of maintenance treatment with buprenorphine was 96 months, with excellent compliance for buprenorphine (86.92±9.58 days in 90 days). Thirty-five per cent had used cannabis in past 90 days, with lifetime use of cannabis in 77%. Participants using cannabis currently were on lower doses of buprenorphine (mean dose per day: 7.9 mg vs 8.9 mg; $P = 0.04$). Yet, there was no significant difference in the rates of opioid use or opioid withdrawals and craving between the 2 groups. Compliance to OAT, number of days of employment, daily earning, and WHOQOL-Bref scores in all domains were comparable between those with and without cannabis use. Duration of cannabis use, current use of alcohol, and dose of buprenorphine predicted current cannabis use in multivariable logistic regression analysis.

CONCLUSIONS: Cannabis use does not negatively influence opioid outcomes among patients receiving buprenorphine maintenance treatment. There is no difference in productivity and quality of life between individuals maintained on buprenorphine with and without current cannabis use.

High-intensity cannabis use is associated with retention in opioid agonist treatment: a longitudinal analysis.

Socías ME, et al. Addiction. 2018.

Authors

Socías ME[1,2], Wood E[1,2], Lake S[1], Nolan S[1,2], Fairbairn N[1,2], Hayashi K[1,3], Shulha HP[1], Liu S[1], Kerr T[1,2], Milloy MJ[1,2].

Author information

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2 Department of Medicine, University of British Columbia, Vancouver, BC, Canada.
3 Faculty of Health Sciences, Simon Fraser University, Burnaby, BC, Canada.

Citation

Addiction. 2018 Dec;113(12):2250-2258. doi: 10.1111/add.14398. Epub 2018 Sep 20.

Abstract

BACKGROUND AND AIMS: Cannabis use is common among people on opioid agonist treatment (OAT), causing concern for some care providers. However, there is limited and conflicting evidence on the impact of cannabis use on OAT outcomes. Given the critical role of retention in OAT in reducing opioid-related morbidity and mortality, we aimed to estimate the association of at least daily cannabis use on the likelihood of retention in treatment among people initiating OAT. As a secondary aim we tested the impacts of less frequent cannabis use.

DESIGN: Data were drawn from two community-recruited prospective cohorts of people who use illicit drugs (PWUD). Participants were followed for a median of 81 months (interquartile range = 37-130).

SETTING: Vancouver, Canada.

PARTICIPANTS: This study comprised a total of 820 PWUD (57.8% men, 59.4% of Caucasian ethnicity, 32.2% HIV-positive) initiating OAT between December 1996 and May 2016. The proportion of women was higher among HIV-negative participants, with no other significant differences.

MEASUREMENTS: The primary outcome was retention in OAT, defined as remaining in OAT (methadone or buprenorphine/naloxone-based) for two consecutive 6-month follow-up periods. The primary explanatory variable was cannabis use (at least daily versus less than daily) during the same 6-month period. Confounders assessed included: socio-demographic characteristics, substance use patterns and social-structural exposures.

FINDINGS: In adjusted analysis, at least daily cannabis use was positively associated with retention in OAT [adjusted odds ratio (aOR) = 1.21, 95% confidence interval (CI) = 1.04-1.41]. Our secondary analysis showed that compared with non-cannabis users, at least daily users had increased odds of retention in OAT (aOR = 1.20, 95% CI = 1.02-1.43), but not less than daily users (aOR = 1.00, 95% CI = 0.87-1.14).

CONCLUSIONS: Among people who use illicit drugs initiating opioid agonist treatment in Vancouver, at least daily cannabis use was associated with approximately 21% greater odds of retention in treatment compared with less than daily consumption.

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ARE April 09, 2019; 92 (15 Supplement) MAY 6, 2019

Medical Cannabis in the Treatment of Parkinson's Disease (P2.8-016)

Bennett Myers, Tanya Geist, Paul Hart, Traci Aladeen, Alexandra Begley, Erica S. Westphal, Stefania Floarea, Michelle Rainka, Laszlo Mechtler

First published April 9, 2019,

Abstract

Objective: The study aims to evaluate medical cannabis' (MC) efficacy and adverse effects (AE) in treatment of Parkinson's disease (PD) symptoms.

Results: Sixty-two (43=Male, 20=Female) patients aged 71±10 years were included. Primary indication for MC treatment included PD (71%), chronic pain (25%), cancer (2%), and neuropathy (2%). Seventy-seven percent (N=48) reported improvement in PD motor symptoms, most commonly in tremor and spasticity; improvements in rigidity, gait instability, dyskinesia and bradykinesia were also noted. Of patients reporting chronic pain, 85% reported decreased pain with MC therapy. Twenty-five patients were taking an opioid at MC therapy initiation, and a significant proportion (48%, p=0.002) either discontinued or reduced the opioid during treatment. Over half of patients also reported improvement in non-motor PD symptoms, including sleep disturbance, anxiety, depressed mood, and nausea. Forty-four percent of patients reported AE, most commonly somnolence (N=15), followed by disorientation (N=8) and dizziness (N=4). AE were transient or resolved with dose adjustment in 41% of these patients. MC was tolerated well in this population, with only 4 patients (6.4%) discontinuing due to AE.

Conclusions: The study finds that, typically in combination with other PD therapies, MC is a well-tolerated option to improve both motor and non-motor symptoms in PD patients, and may be helpful in relieving some AE of PD medications such as nausea or insomnia. Commonly observed side effects of MC included somnolence and dizziness. Future randomized placebo-controlled trials are necessary to verify efficacy, AE profiles, dosage information, and long-term effects of MC on PD.

Role of chronic cannabis use: Cyclic vomiting syndrome vs cannabinoid hyperemesis syndrome

Table 1. Rome IV criteria for cannabinoid hyperemesis syndrome

Stereotypical episodic vomiting resembling (CVS) in terms of onset, duration, and frequency
Presentation after prolonged, excessive cannabis use
Relief of vomiting episodes by sustained cessation of cannabis use
Supportive remarks:
May be associated with pathologic bathing behavior (prolonged hot baths or showers).

Note

Criteria fulfilled for the last 3 months, symptom onset at least 6 months before diagnosis.

real-life experience of mode of consumption and assessment of side-effects

Naftali, Timna[a,,b]; Bar-Lev Schleider, Lihi[c]; Sklerovsky Benjaminov, Fabiana[a,,b]; Lish, Ido[a,,b]; Konikoff, Fred M.[a,,b]; Ringel, Yehuda[a,,b]

European Journal of Gastroenterology & Hepatology: November 2019 - Volume 31 - Issue 11 - p 1376–1381
doi: 10.1097/MEG.0000000000001565
Original Articles: Gastroenterology

Abstract | Author Information | Article Metrics

Objective Use of medical cannabis for improving symptoms of inflammatory bowel disease is increasing. However, reports on long-term outcomes are lacking. This prospective, observational study assessed the effects of licensed cannabis use among patients with inflammatory bowel disease.

Methods Dose and mode of consumption, adverse events, use of other medications, and long-term effects were evaluated among 127 patients with inflammatory bowel disease using legalized medical cannabis. Blood count, albumin, and C-reactive protein were assessed before, 1 month, and at least 1 year after medical cannabis therapy was initiated. Questionnaires on disease activity, patient function, and signs of addiction were completed by patients and by a significant family member to assess its effects.

Results The average dose used was 31 ± 15 g/month. The average Harvey-Bradshaw index improved from 14 ± 6.7 to 7 ± 4.7 ($P < 0.001$) during a median follow-up of 44 months (interquartile range, 24–56 months). There was a slight, but statistically significant, average weight gain of 2 kg within 1 year of cannabis use. The need for other medications was significantly reduced. Employment among patients increased from 65 to 74% ($P < 0.05$). We conclude that the majority of inflammatory bowel disease patients using cannabis are satisfied with a dose of 30 g/month. We did not observe negative effects of cannabis use on the patients' social or occupational status.

Conclusions Cannabis use by inflammatory bowel disease patients can induce clinical improvement and is associated with reduced use of medication and slight weight gain. Most patients respond well to a dose of 30 g/month, or 21 mg Δ9-tetra- hydrocannabinol (THC) and 170 mg Cannabidiol (CBD) per day

For more information:

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