UC DAVIS HEALTH | BETTY IRENE MOORE SCHOOL OF NURSING

Shuyi Lao, MEPN Candidate; Danielle Carbonaro, MEPN Candidate; Laura Schaffer, BSN, RN, NP Candidate; Kathlyn Larco, PA Candidate; Colin Elie, PA Candidate; Danielle Reynolds, PA Candidate
Betty Irene Moore School of Nursing

The efficacy of ibogaine use in opioid use disorder compared to buprenorphine

Introduction

Opioid Use Disorder (OUD) has affected the lives of many. Buprenorphine is a common OUD treatment (Strain, 2019).

Disadvantages of buprenorphine:
1. Requires long-term continuous administration
2. It is an opioid with potential for abuse
3. Current success rate is 8.6%

Ibogaine targets the same opioid receptors, may be a more cost-effective and convenient alternative to buprenorphine treatment (Litjens, 2016).

PICOT question: **How does Ibogaine affect relapse rates within a 12-month period in opioid misuse disorder compared to buprenorphine?**

Design

1. JAMA, PubMed, Embase and Google Scholar databases were used to find peer-reviewed articles.
2. Key terms used: “ibogaine therapy”, “buprenorphine”, “suboxone therapy”, “suboxone therapy relapse rates” and “opioid addiction”
3. Inclusion criteria: published in English, human studies, and within the past 10 years.

Analysis

1. Ibogaine decreased drug craving, withdrawal symptoms, and opioid use (Noller, Frampton, Yazar-Klosinki, 2016)
2. Buprenorphine studies showed that only 36% of subjects used buprenorphine daily while the others either relapsed or continued to use illicit opioids
3. There were high potentials for buprenorphine to be misused, abused and diverted (Chilcoat et al., 2019).

Results

Authors & date	Publication Title	Level of Evidence	Findings
Chilcoat, Amick, Sherwood, Dunn. (2019)	Buprenorphine in the United States: Motives for abuse, misuse, and diversion	Literature review	Buprenorphine misuse was more frequently reported than abuse. 37% of participants indicated an intention to resume illicit opioid abuse following buprenorphine misuse. 1/3 respondents had used buprenorphine "to get high" or a "better high than prescription opioids", cheaper option, to abstain from other substances 52% have sold Buprenorphine and 38% sold "often" or "very often"
Els, Jackson, Kunyk, Lappi, Sonnenberg, Hagtvedt, Sharma, Kolahdooz, Straube. (2017)	Adverse events associated with medium–and long–term use of opioids for chronic non–cancer pain: an overview of Cochrane Reviews	Systematic review	There is a 42% higher risk of any adverse events and a 175% increased risk of serious adverse events associated with opioid use when compared to placebo. The risks of specific adverse events were increased, specifically for constipation, dizziness, drowsiness, fatigue, hot flashes, increased sweating, nausea, pruritus, and vomiting.
Mash, Duque, Page, Allen-Ferdinand. (2018)	Ibogaine Detoxification Transitions Opioids and Cocaine Abusers Between Dependence and Abstinence: Clinical Observations and Treatment Outcomes	Observational study	Subjects reported significant decrease in drug craving post-treatment and 1 month follow-up assessments compared to baseline measures. Intensity, frequency, and duration of craving significantly decreased post-treatment (P<0.0001) Significant decrease in depressive symptoms 1-month after ibogaine treatment. Rapid improvement in mood scores for opioid dependent subjects. (P<0.001)
Noller, Frampton, Yazar-Klosinki, (2016)	Ibogaine treatment outcomes for opioid dependence from a twelve-month follow-up observational study.	Observational study	Ibogaine can be effective in reducing opioid withdrawl, depressive moods, and reducing craving or ceasing opioid use. 75% or more of participants had negative urine samples for opioids 3, 6, 12 months post ibogaine treatment.
Schenberg, de Castro Comis, Chaves, da Silveira. (2014)	Treat drug dependence with the aid of ibogaine: a restrospective study	A retrospective study	All women & 51% men in the study were found abstinent during the follow up. No relapses in women and 49% in men. Abstinence duration rate after the first session was 5.5 months and 8.4 months after subsequent sessions.

A total of 10 articles (5 salient studies shown) were included in the present study to explore the OUD treatment with ibogaine and buprenorphine.

Summary

1. 1 month post ibogaine therapy, 50% of patients displaying no opioid use compared to 18% with buprenorphine use.
2. Buprenorphine was found to have more adverse effects, triggering discontinuation of the treatment for OUD, misuse and diversion
3. Ibogaine was also related to decreases in depressive symptoms and improvement in 7 life areas that are commonly affected by OUD.

Limitations

1. Lack of research comparing ibogaine to buprenorphine exists in the literature review.
2. The studies of ibogaine reviewed in this paper were uncontrolled, observational studies.
3. Data on ibogaine safety profile is limited.
4. Due to the lack of research comparing ibogaine, buprenorphine, and other MAT for OUD, a practice recommendation for the use of ibogaine can not be made at this time.

Conclusions/Further Study

1. Ibogaine treatment was associated with a higher reduction in opioid use compared to buprenorphine use.
2. The results gathered from the literature review provides insight into the potential efficacy of ibogaine for OUD in the United States.
3. Further studies are needed to research efficacy and safety of ibogaine. It would be beneficial to have controlled randomized trials performed in the United States with a large sample size, comparing the twelve month efficacy of ibogaine with buprenorphine for treating substance use disorders.

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