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Research Article

Fast Treatment of Methamphetamine Related Anxiety and Depressive Disorders: A Novel Approach

Abstract

Background: Methamphetamine abuse and dependence is currently a considerable problem.

Objective: To explain the efficacy of buprenorphine in the quick management of methamphetamine related anxiety and depressive disorders and also methamphetamine withdrawal craving.

Results: 52 mg of buprenorphine is very valuable in the treatment of severe methamphetamine related anxiety and depression and also methamphetamine craving.

Discussion: This study lightens that high dose of buprenorphine is quite effective in the lowering of anxiety, depression, and chest pain and methamphetamine withdrawal symptoms. Hence, our finding is a substantial addition to the literature.

Conclusions: We resulted that a single high dose of buprenorphine could quickly subside methamphetamine induced anxiety, depression, psychogenic pain and withdrawal symptoms.

It looks that buprenorphine may be a safe and valuable drug for the treatment of the majority of methamphetamine associated disorders.

Introduction

Buprenorphine as a partial mu receptor agonist has been under intensive study for the management of opioid dependence and pain since the late 1970s [1]. Published experiences from the United States, comparing buprenorphine with methadone for the treatment of pain and opioid dependence, illustrate the usefulness of buprenorphine in comparing to methadone [2-4]. Johnson, Jaffe, and Fudala explained that 8 mg of buprenorphine per day was comparable to 60 mg of methadone considering opiate negative urine and retention rate [5].

Sublingual buprenorphine is well absorbed; reaching 60%–70% of the plasma concentration, but less than 10% is absorbed when administered orally. Buprenorphine is a partial mu agonist and has ceiling, so its use has low physical dependence and less possibility of overdose. Buprenorphine decreases the incidence of HIV and other complications coming after opioid abuse. Buprenorphine detoxification is easier than methadone [1,6-8].

Derivatives of opium have been used for a long time for medical, recreational and social purposes in some regions of the world, such as Asia, North America and Europe [9,10].

Currently, mental and physical problems are developing universally. In mental diseases, substance joined disorders, especially stimulants and opioids induced diseases have been considered as advancing dilemma.

Nowadays, substance related psychiatric disturbances are raising problems and have caused more referrals to outpatient and inpatient centers and hospitals [11-39].

Methamphetamine produces a common and ordinary state

of well-being accompanied by raised energy, physical activity and wakefulness [8]. Prolonged use often ends to driven drug abuse, long-term health consequences, severe dependency, decreased weight, memory deficits, unstable affect, deregulated mood, increased aggression, poor concentration, increased violence, hallucinations, delusions, and poor impulse control [40,41].

Methamphetamine is abused globally. In the United States, 18 million people over age 12 have tried methamphetamine during their life [40]. As with any abused substance, meth addiction is a chronic relapsing disorder meriting the need for effective pharmacotherapies to aid the prevention of relapse.

FDA (Food and Drug Administration) accepted buprenorphine for the management of pain, as well as opioids withdrawal symptoms [8].

In the present study we are administering a single dose of 52 mg of buprenorphine for the fast treatment of anxiety, depression, pain and craving related to methamphetamine abuse.

We could not find published reports on this subject; hence this experience may result to a new conclusion.

Patient portray

We picture a patient with the diagnosis of methamphetamine related anxiety and depressive disorder who practically answered to a single dose of 52 mg of buprenorphine.

Our patient was a single 23 year old unemployed with high school education. He lived with his father in Shiraz city of Fars province in southern Iran.

He began smoking tobacco at age of 18. Then, 3 months later began smoking hashish and 4 months later started smoking of opium.

Since 1.5 years prior to admission he started smoking heroin. He had been heavy smoker of methamphetamine since 6 months prior to admission.

He had been occasionally abusing tramadol, methadone and benzodiazepines since 2 years prior to hospitalization.

Ten days before hospitalization he was referred to an addiction campus and was there until a couple of days ago.

At the time of admission he was very irritable, anxious, hopeless, depressed and experiencing auditory hallucination. Also he was experiencing severe chest pain and craving for methamphetamine.

Due to severe psychogenic chest pain (without any medical cause), irritability, depression, anxiety, and restlessness he was admitted in psychiatric ward.

During meticulous psychiatric interview and mental status examination he had depressed mood, agitation and insomnia. In detailed physical and neurological examinations we could not find, any significant abnormal findings.

Tests of serology for viral markers (HIV, HCV and HB Ag) were normal.

Urine drug screening tests were negative (because he was in addiction campus for 10 days prior to admission).

Based on the detailed medical, psychiatric, and substance use history and DSM-5 criteria he was diagnosed as methamphetamine related anxiety and depressive disorders.

In the first day of admission we administered venlafaxine 225 mg and trazodone 100 mg per day for the treatment of depression and anxiety. Because of presence of methamphetamine related disorders (craving, irritability, severe chest pain, anxiety and depression) a single dose of 52 mg of sublingual buprenorphine was administered in the second day.

Before administration of buprenorphine, he was experiencing severe chest pain, anxiety, depression, suicidal thoughts and methamphetamine craving. Few hours after administration of a single dose of 52 mg of buprenorphine only, he reported a fast declining level of irritability, anxiety, depression, chest pain and methamphetamine craving.

Based on the comprehensive interview, close monitoring and precise measurement (3 times a day), he experienced a substantial daily descending level of chest pain methamphetamine craving, anxiety and depression after receiving 52 mg of buprenorphine.

He was discharged without any significant pain, craving or psychiatric symptoms after 2 weeks of hospitalization.

Discussion

This study indicates that buprenorphine, as a single high dose is quite effective in the rapid lowering of anxiety, depression, and chest pain and methamphetamine withdrawal symptoms. Therefore, our

finding could add substantial data to the literature.

Conclusions

It looks that a single dose of buprenorphine could rapidly subside methamphetamine induced anxiety, depression, psychogenic pain and withdrawal symptoms.

It appears that buprenorphine may be a safe and valuable drug for the treatment of the majority of methamphetamine associated disorders.

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