

# Instant Detoxification of Heroin with High Dose of Buprenorphine

**Keywords:** Buprenorphine; Single high dose; Heroin detoxification

## Abstract

**Background:** Heroin dependence is a raising problem.

**Objective:** To investigate the effect of a single dose of 120 mg of buprenorphine for the detoxification of heroin dependence.

**Results:** A single dose of 120 mg of buprenorphine is very useful for the treatment of heroin dependents.

**Discussion:** This study describes that one high dose of buprenorphine is beneficial for the management of heroin dependence. This finding is outstanding.

**Conclusion:** We concluded that a single high dose of buprenorphine may treat heroin withdrawal symptoms very well. This finding is a considerable addition to the literature of heroin detoxification.

## Introduction

Heroin is a derivative of morphine that was originally considered as a non-addictive derivative of morphine [1].

Buprenorphine was accepted for the treatment of detoxification of heroin and pain. Buprenorphine is a safe medication and a partial mu receptor agonist with low possibility of overdose [1].

For the detoxification of heroin, buprenorphine is more effective than methadone [2-4]. Researchers such as Johnson, Jaffe, and Fudala reported that 8 mg/d of buprenorphine is comparable to 60 mg of methadone regarding retention rates and opioids negative urines [5].

Administration of buprenorphine can reduce the incidence of HIV and other related disorders coming after opioids abuse [1,6-8].

Opium and its derivatives have been considered as medicine for a long time in some countries [9,10]. Currently, mental disorders are raising globally [11-15]. Considering mental disorders, substance induced disorders, especially opioid derivatives have been known as ascending dilemma. At present, stimulants abuse and stimulants related disorders are a growing problem that have resulted more referral to addiction centers [16-38].

We are now applying a single dose of 120 mg of sublingual buprenorphine for the heroin detoxification.

To the authors knowledge we cannot find published studies on this matter; hence, our study may result to a substantial finding.

According to DSM-5 criteria, we prepared a reliable and valid scale to assess heroin withdrawal pain and craving including grades from 0 to 10 (0 means no pain or craving at all and 10 means severe pain or desire all the time) [19- 21].



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Pain and Craving Scale of measurement: 0-1-2-3-4-5-6-7-8-9-10.

## Patient description

Now we illuminate our patient with heroin dependence that was detoxified with a single high dose of 120 mg of buprenorphine.

He was a married 39 year old self employed with middle school education. He lived with his family in Zarghan city of Fars province in south of Iran.

He started smoking opium and abusing benzodiazepines since 15 years prior to admission. He began smoking heroin since 2 years prior to admission. Patient had occasionally been using methamphetamine, tramadol and methadone. He gradually developed anxiety, depressed mood, and insomnia. Since a couple of weeks prior to admission his symptom were increased and was admitted in psychiatric ward.

During precise psychiatric interview and examination, he had opioid withdrawal symptoms, depressed mood, anxiety and insomnia. In physical and neurological examinations we could not find any abnormal abnormality.

Urine drug screening tests was positive for morphine, methadone and benzodiazepine. Serology tests for viral markers (HIV, HCV and HB Ag) were normal.

According to DSM-5 criteria and detailed medical, psychiatric, and substance use history he was diagnosed as "opioid related depressive disorder and opioid (heroin) dependence.

At the time of admission he was complaining of anxiety, insomnia and opioid withdrawals especially pain. We administered olanzapine 20 mg/d for the treatment of insomnia, and. Anxiety.

On the night of admission (few hours after admission) his pain score was 10. In the second day of admission, since he was still complaining of severe pain, we administered 120 mg of sublingual buprenorphine as a single dose only.

Out of 10, the mean scores of heroin withdrawal pain for 5 days of admission was 10 (the day before buprenorphine administration), and after buprenorphine were 7.7, 3.7, 3 and 3 respectively.

Based on the interview, close monitoring, and precise measurement (3 times a day) for heroin withdrawal pain and craving, he reported a rapid declining level of pain and craving after receiving a single dose of 120 mg of buprenorphine.

After 5 days of hospital admission, patient was discharged without any significant withdrawal symptoms.

## Discussion

In Iran substances, such as marijuana, hashish, cocaine, methamphetamine, hallucinogens, alcohol, heroin, opium, morphine and alcohol are illegal (tobacco products are legal).

Opioids dependents are commonly detoxified or treated with clonidine, methadone, and sometimes with buprenorphine.

This study indicates that buprenorphine 120 mg as a single high dose only, is quite effective in the treatment of heroin withdrawal symptoms. Hence our finding may be an outstanding addition to the literature.

## Conclusions

We can conclude that administration of a single high dose of 120 mg of buprenorphine could completely manage heroin withdrawal symptoms.

It appears that buprenorphine is quite effective in the detoxification of heroin.

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