A firsthand launch: Heroin dependence treatment with a single dose of 48 mg of buprenorphine

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Background: Heroin abuse is a cosmopolitan problem. Objective: To scrutinize the influence of a single dose of 48 mg of buprenorphine for the treatment of heroin dependence. Results: A single dose of 48 mg of sublingual buprenorphine is very influential for the treatment of opioid dependents. Discussion: This study indicates that buprenorphine as a single dose is very helpful in the treatment of heroin withdrawal symptoms. Conclusions: It appears that buprenorphine is very operative for the treatment of heroin dependence.

Keywords: Buprenorphine; Heroin withdrawals.

INTRODUCTION

Partial mu receptor agonist drugs such as buprenorphine have low possibility of overdose (Jasinski DR et al 1978). Published studies in the treatment of opioid dependence, comparing methadone with buprenorphine, illustrate that buprenorphine is safer and more effective than methadone (Ling W et al 1998; Ling W et al 1994; Strain EC et al 1994). Johnson, Jaffe, and Fudala showed that 8 mg of buprenorphine per day is comparable to 60 mg of methadone considering retention rates and opioids negative urines (Johnson RE et al 1992).

Buprenorphine has less physical dependence than other opioids such as methadone. Buprenorphine could diminish the incidence of HIV and other connected problems following opioids abuse. In comparison with methadone, detoxification of buprenorphine is easier. Sublingual buprenorphine is well absorbed, reaching 60%–70% of the plasma concentration, but oral ingestion has poor absorption (Jasinski DR et al 1978; Lewis JW 1985; Jasinski DR et al 1989). Since a long time ago people have been using opium as a medicine (Sadock B et al 2015; Brian J 1994; Jonnes J 1995). Heroin is a synthetic derivative of opium and was earlier considered as a non-addictive medication (Sadock B et al 2015).


Now, opioids and stimulants-induced psychiatric disorders are developing problems and have produced more referrals to outpatient and inpatient psychiatric...
FDA (Food and Drug Administration) approved buprenorphine for the treatment of pain, and opioid withdrawal symptoms (Sadock B et al 2015).

In this report we are administering a single dose of 48 mg of buprenorphine for the treatment of heroin withdrawal symptoms and craving.

To the best of our understanding, there are not a considerable number of published reports on this subject, so, this study could disclose a new finding.

We prepared a reliable and valid scale of measurement (31, 32, 33) to measure the withdrawal pain and craving (based on DSM-5 criteria) for heroin withdrawal pain and craving, including scores from 0 to 10 (0 means no pain or craving at all and 10 means severe pain or craving and tendency all the time).

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

Patient Display

Now we depict a patient with heroin dependence who basically retort to a single dose of 48 mg of buprenorphine.

FT was an unemployed single 22 year old with first grade of secondary school education. He lived with his parent in Shiraz city of Fars province in southern Iran.

He started smoking opium and hashish at age of 18. He gave history of smoking methamphetamine occasionally. Since 1 year prior to admission he began smoking of heroin and gradually developed anxiety, restlessness, depressed mood, hopelessness, helplessness, suicidal behavior, aggressive behavior, crying and insomnia.

ue to aggressive behaviors, impulsive behaviors, suicidal thoughts, severe depression, agitation and insomnia he was admitted in psychiatric ward.

In our psychiatric interview and examinations he had anxiety, agitation, self-injury, depressed mood and suicidal thoughts. During detailed physical and neurological examinations there were not abnormal findings. Urine drug screening tests were positive for morphine, methadone, methamphetamine and cannabis. Tests of serology for viral markers (HIV, HCV and HB Ag) were normal.

Based on precise medical, psychiatric, substance use history and DSM-5 criteria, FT was diagnosed as "opiod induced depressive disorder and upload (heroin) dependent.

While FT was admitted in psychiatric ward, he received olanzapine 30 mg, sodium valproate 1000 mg, sertraline 200 mg and chlorpromazine 100 mg/d for the management of insomnia, agitation, aggression, impulsive behaviors and depression.

We started ibuprofen 1200 mg, baclofen 75 mg and clonidine 0.3 mg/d for the treatment of heroin withdrawal symptoms.

Since FT were complaining of withdrawal pain and severe heroin craving, hence he received buprenorphine 48 mg as a single dose only on the 2nd day of admission.

Out of 10, the mean scores of heroin craving for 14days of admission were 1.5, 1, 0.7, 0.7, 0.3, 0.7, 0, 0.3, 0.7, 0, 1, 1, 1 and 1 respectively.

Base on the close monitoring, detailed measurement and precise interview (3 times a day) for heroin withdrawal craving, he experienced a shortening level of craving after administration of a single dose of 48 mg of buprenorphine.

After 14 days of admission FT did not complained of depression or agitation and was discharged without any significant heroin withdrawal symptoms and craving.

DISCUSSION

This study makes clear that buprenorphine 48 mg as a single dose is very impressive in the controlling of opioid withdrawal symptoms.

According to the Iranian drug plan if somebody is found to beutilizing illegal substances and drugs, such as, ecstasy, methamphetamine, methylphenidate, marijuana, hashish, cocaine, hallucinogens, alcohol, morphine, pethidine, opium and heroin, (tobacco products are legal), he/she must be referred to outpatient / inpatient centers to be treated.

Opioid dependents in Iran could be detoxified with clonidine, methadone, and buprenorphine. Then, their maintenance treatment can continue with naltrexone, methadone or buprenorphine.


