

## A Case Report of Naloxone in Poisoning with Opium

Khadije Saravani<sup>1\*</sup>, Halime Aali<sup>2</sup>

<sup>1</sup>Assistant professor of forensic medicine and Toxicology, Zabol university of medical sciences, zabol, Iran

<sup>2</sup>Department of internal medicine, zabol university of medical sciences, zabol, Iran

**\*Corresponding Author:** Khadije Saravani, Assistant professor of forensic medicine and Toxicology, Zabol university of medical sciences, zabol, Iran, Email: Dr.kh.saravani93@gmail.com

### ABSTRACT

**Introduction:** Naloxone, sold under the brand name Nar can among others, is a medication used to block the effects of opioids, especially in overdose.

**Case Presentation:** The patient is a 49-year-old woman who came to Hirmand Hospital because of oral poisoning. The patient has come forward with complaints of shortness of breath. The symptoms at the onset of an emergency include hypertension 43.4, body temperature 36, pulse 54, respiratory rate 30, and GCS 13. The actions taken included ECG, CBC, CPK-LDH, NWK-Troponins-BMR-urine tests It has been reported that normal EKG and white blood cell count have been reported in 18.7%, and protein excretion has been seen in the urine, and a crackle has been heard in the lungs of the lungs, which has been given due to the symptoms of pneumonia. The patient received an emergency dose of 50% dextrose serum, saline 500 CC, 6 Naloxone 0.6 mg antibiotic, gastric nasal tube and Foley catheter. For the patient, 30 Naloxone capsules of 0.4 mg with 1 liter of dextrose saline were prescribed. For 8 hours, the patient received sodium bicarbonate 7.5% vial for treatment. CKMB fell to 35 from the first day of 1950. CPK changes from 62050 to 117.

**Conclusion:** Since the patient has a history of heart attacks and pneumonia, the use of Naloxone in the first place is associated with a reduction in symptoms. The use of bicarbonate also has an effect on blood purification, especially since the person has acidosis after taking opium

**Keywords:** Naloxone, opium, poisoning

### INTRODUCTION

Iran is the country with the highest drug addiction in the world (1, 2). East Iran is bordered by Afghanistan, where the vast majority of opium is produced in the world. Iran is the main route for transporting narcotics to Europe (3). It is estimated that there are about 2 million addicts in Iran, of which 9 to 16 percent are drug addicts (4, 5). The World Health Organization (WHO) reported that opium use in Iran is three times higher than the world average. Most opium used in Iran (82%) is opium. (6).

Calcium chloride, sodium bicarbonate, thiamine, thiosulfate, Naloxone and others are recommended for treatment of epileptics poisoning (7). One of the fastest methods for quitting addiction is the effect of Naloxone agonist on opioid-like receptors, the effect of suppressor of barbiturates on withdrawal symptoms, the inhibition of Naloxone by barbiturates, the performance of different

Naloxone in high intake, from its pharmacological effect in The amount of foot-wear, the effect Barbiturates refer to the Naloxone solubility and release of endorphins due to barbiturates (8).

Rapid and ultra fast detoxification requires the use of opioid antagonists, such as Naloxone and naltrexone, with adrenal insufficiency and specialist anesthetics and care. In this method, most of the symptoms of withdrawal leave remain until one week after detoxification (9).

Iran is on track to transport opium from Afghanistan to the countries of the frontier, Europe, Turkey and Russia, and about 40% of the opium produced in Afghanistan is to be used both in Iran and for transfer to other countries in Iran. According to the population, Iran is one of the largest opium poppers in the world (10).

According to government reports, opium addiction has been estimated to increase threefold over the last 20 years to reach -2.8% (11).

### Case Presentation

The patient is a 49-year-old woman who came to Hermand Hospital because of oral poisoning. The patient has come forward with complaints of shortness of breath. The symptoms at the onset of an emergency include hypertension 43.4, body temperature 36, pulse 54, respiratory rate 34, and GCS 13.

Efforts included taking EKG, CBC and urine tests, normal ECG and white blood cell count 18.7 it has been reported that protein excretion has been seen in the urine, and a hearing loss has been heard in the lungs, which has been diagnosed with pneumonia. In an emergency, a 50% dextrose number, a normal serum saline 500 CC, six Naloxone 0.6 mg, sefraxazone gr 1 received verididi and one tablet of nitromicin. The stomach tube and Foley catheter were embedded in the patient.

Due to lack of facilities, he was transferred to Amir Hospital on 24/8/1397. In the tests of the history of 24 blood positive troponins, BUN = 37.5, WBC = 17.9, Na = 139, k = 5.5, blood sugar = 215 and platelets of 149 thousand reported. On the second day, the patient was transferred to the ICU. For the patient, 30 Naloxone 0.4 mg and 1 liter of dextrose saline were prescribed.

On 25/8/1397, troponins and positive patients were still reported to receive 1 g of ceftriaxone vial and 300 mg of injectable clindomycin and 50 mg of ranitidine and 5% sodium proteazine. Experiments showed high levels of AST and AIT enzymes.

The AST was initially 6612 and AIT 2910 was reported. This amount was reduced to 41 for AST and for ALT to 105 for 7/9/1397. During treatment, the patient received sodium bicarbonate for a vial of 7.5%. CKMB fell to 35 from the first day of 1950. CPK changes from 62050 to 117.

### DISCUSSION

Pharmacokinetic studies on Naloxone show that the use of Naloxone in the form of a venous kinickel has a period of between 20 and 90 minutes based on the dose used. It affects 1 to 2 minutes (7). They also use Naloxone to fight myocardial infarction (12). It also reduces mortality in overdose with narcotics (13). In patients with shock, including septic shock, carcinogenic, hemorrhagic, and spinal shock, which use Naloxone, there is an improvement in

the observed blood flow and also its efficacy in wound healing (14).

In the year 1990, for the first time, midazolam, a short acting benzodiazepine, was used to suppress the withdrawal symptoms caused by administration of Naloxone, where patients received intravenous midazolam 30 mg 12 hours after the last dose of methadone. Toxilisation 4 mg of Naloxone was dissolved in 200 ml of normal saline 0.9% and injected into the patient for ten minutes. Patients were given a 57-50 mg midazolam injection to suppress the withdrawal symptoms induced by Naloxone injection. To wake patients after the end of detoxification, repeated administration of flumazenil is used to wound patients (2-15 mg) (16-15). In 1993, nasal insulin was used during anesthesia. In this method, 60 mg oral midazolam plus 0.3 mg of clonidine and 0.5 mg of and andenosure were used. After the start of anesthesia, 50 mg of naltrexone was given to the patient and 15 minutes after administration of the above drugs, Naloxone was given as a spray of 4 mg (17).

### REFERENCES

- [1] Alinejad S, Kazemi T, Zamani N, Hoffman RS, Mehrpour O. A systematic review of the cardiotoxicity of methadone. *EXCLI J.* 2015; 14:577-600.
- [2] Alinejad S, Aaseth J, Abdollahi M, Hassanian-Moghaddam H, Mehrpour O. Clinical Aspects of Opium Adulterated with Lead in Iran: A Review. *Basic Clin Pharmacol Toxicol.* 2018; 122(1):56-64.
- [3] Amirabadizadeh A, Nezami H, Vaughn MG, Nakhaee S, Mehrpour O. Identifying Risk Factors for Drug Use in an Iranian Treatment Sample: A Prediction Approach Using Decision Trees. *Subst Use Misuse.* 2018; 53(6):1030-40.
- [4] Alavi SM, Behdad F. Seroprevalence study of hepatitis C and Hepatitis B virus among hospitalized intravenous drug users in Ahvaz, Iran (2002-2006) *Hepat Mon.* 2010;10(2):101-4.
- [5] Eskandarieh S, Jafari F, Yazdani S, Hazrati N, Saberi- Zafarghandi MB. Compulsory maintenance treatment program amongst Iranian injection drug users and its side effects. *Int J High Risk Behav Addict.* 2014; 3(4): e21765.
- [6] Ghaderi A, Motmaen M, Abdi I, Rasouli-Azad M. Gender differences in substance use patterns and disorders among an Iranian patient sample receiving methadone maintenance treatment. *Electron Physician.* 2017; 9(9):5354-62.
- [7] Merlin MA, Saybolt M, Kapitanyan R, Alter SM, Jeges J, Liu J, et al. Intranasal naloxone delivery is an alternative to intravenous

## A Case Report of Naloxone in Poisoning with Opium

- naloxone for opioid overdoses. *Am J Emerg Med.* 2010; 28(3):296-303.
- [8] Loimer N, Schmid R, Presslich O & Lenz K. Naloxone treatment for opiate withdrawal syndrome. *British Journal of Psychiatry*, 1998; 153,851-852.
- [9] Kaplan H, Sadock BJ. *Comprehensive textbook of psychiatry*. 8th ed. Baltimore: William and Wilkins; 2005. 941-8
- [10] Bureau of International Narcotics and Law Enforcement Affairs. 2011 International Narcotics Control Strategy Report (INCSR). Available from: URL: <http://www.state.gov/p/inl/rls/nrcrpt/2011/vol1/156361.htm#iran>. (Accessed Date: 2011-06-10). <http://www.webcitation.org/5zKjL4y3o>
- [11] Safaei, N, Outcomes of coronary artery bypass grafting in patients with a history of opiate use. *Pak J Biol Sci* 11 (2008) 22- 27.
- [12] Lavonas EJ, Drennan IR, Gabrielli A, Heffner AC, Hoyte CO, Orkin AM, et al. Part 10: Special Circumstances of Resuscitation: 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. *Circulation.* 2015; 132(18 Suppl 2):S501-18.
- [13] Maxwell S, Bigg D, Stanczykiewicz K, Carlberg-Racich S. Prescribing naloxone to actively injecting heroin users: a program to reduce heroin overdose deaths. *J Addict Dis.* 2006; 25(3):89-96.
- [14] Boeuf B, Poirier V, Gauvin F, Guerguerian AM, Roy C, Farrell CA, et al. Naloxone for shock. *Cochrane Database Syst Rev.* 2003(4): CD004443.
- [15] Loimer N, Lenz K, Presslich O, Schmid R. Rapid transition from methadone maintenance to naltrexone, *The Lancet*, 1990; 335,111.
- [16] Loimer N, Lenz K, Schmid R, Presslich O. Technique for greatly shortening the transition from methadone to naltrexone maintenance of patients addicted to opiates. *American Journal Psychiatry*, 1991; 148,933-935.
- [17] Loimer N, Hoffmann, P, Ghaudhry H. Ultra short noninvasive opiate detoxification. *American Journal Psychiatry*, 1993; 150,839.

**Citation:** Khadije Saravani, Halime Aali, "A Case Report of Naloxone in Poisoning with Opium", *Journal of Genetics and Genetic Engineering*, 3(2), 2019, pp, 23-25.

**Copyright:** © 2019 Khadije Saravani. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.