

AN OVERVIEW ON “NARCOTIC AND NARCOTIC ADDICTION TREATMENT”

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ABSTRACT

Narcotic drug or opioids addiction is a disease. The various types of drug give addiction. Narcotic drug binds to opioids receptors; these receptors are present in brain and spinal cord. There are different receptors like kappa receptors, mu receptors and delta receptors. Opioids receptors are a group or class of inhibitory G-protein-coupled receptors with opioids as ligands. Endogenous opioids peptides are produced naturally in the body. Examples for Endogenous opioids peptide are endorphins, enkephalins, dynorphins, and endomorphins. Morphine and other some opioids are produced in the human body but in small amount and they are induced in this category. The pattern of drug abuse follows an early Phase: In this phase, the person is preoccupied with thoughts of drugs. The addicted patient does many things while under the influence of drugs. In chronic stage; addict keeps stocks of drugs because he is afraid to be without them. Violence, quarreling, and unpleasantness become a regular feature of his or her life. For these patients; outpatient treatment method is not effective. In that treatment; personal counseling, family counseling, group therapy, occupational therapy, skills training, recreational therapies are important. Rehabilitation and treatment bring positive changes in the patient’s behavior and attitude.

KEYWORDS: Morphine; Heroin Oxycodone; Opioids receptors; Methadone; Buprenorphine.

INTRODUCTION

Narcotic drug is also known as psychoactive compound. It has sleep inducing properties. The term “Narcotic” comes from ancient Greek word i.e. narko. In the United State, narcotic drug is known as opioids. The examples of narcotic drugs are morphine and heroin and other derivatives like hydrocodone.^[1-3] Opioids or narcotic analgesic was derived from the opium. These drug binds to Opioids receptors. Opioids receptors are present in the central nervous system (CNS). Opioids or narcotic

analgesic is used to control in pain signal.^[4-5] Non-Narcotic drug or non-opioids drug involves non steroidal anti inflammatory drug. Acetaminophen and aspirin are used as analgesic drug.

Opioids receptors

Opioids receptors are 40% identical or similar SSTRs. Opioid receptors,^[6-7] (See table 1) are distributed widely found or available in the brain and spinal cord and digestive system.

Sr. no.	Receptor	Subtypes	Location	Function
1	Delta Receptors	δ_1, δ_2	Brain	Anti depressant effect and convulsant effect.
2	Kappa Receptors	$\kappa_1, \kappa_2, \kappa_3$	Brain: Hypothalamus; Spinal Cord	Analgesia; anti convulsant effect.; Depression; Stress
3	mu Receptors	μ_1, μ_2, μ_3	Brain: Cortex, Thalamus; Spinal Cord	Respiratory depression; Analgesia; Vasodilation
4	Nociceptin Receptors	ORL ₁	Brain: Cortex, Thalamus; Spinal Cord	Anxiety depression appetite development of tolerance to μ -opioid agonists

Narcotic drug or substance abuse or drug addiction can be defined as a progressive disease. It is difficult to control. It causes some people to lose control of the use of some substance despite worsening consequences of that use. Narcotic drug use or drug addiction can be life-threatening. Drug Addiction is a powerful and complex disease.^[8-9] Drug Addictions are not problems of willpower or morality. Patient having drug addiction to drugs cannot simply quit if they want to do. Narcotic drug addiction changes the brain function in such a way that it gives physically and mentally. Narcotic addiction treatment often requires lifelong care and therapy. Narcotic drug addiction or Opioid addiction is a chronic medical condition.^[10-12] Opioid addiction can create long-term changes to patient brain. Early drug treatment can help you avoid some of the long-term health conditions associated with addiction to opioids. It may take much more than willpower to break free of drug addiction prescription. It may take long-term process but medications and counseling can improve your chances of success. Narcotic drug addiction or opioid addiction leads to changes in certain areas of patient brain which gives altering the patient mood and behavior. Drugs which causing drug additions like: Morphine is an example of opiate drug. This drug is used as pain killer or pain medication.^[13-15] This drug is used to decreases the feeling of pain. This drug is directly acts on central nervous system i.e. CNS. This drug can be used to treat acute pain and chronic pain. This drug is used for pain caused by myocardial infarction and pain comes from labour. This drug can be administered by various routes like oral, intramuscular, subcutaneous, intravenous route. Codeine is also known as 3-methyl morphine. This drug is naturally occurring methylated morphine. This drug is an example of opiate drug. This drug is used to control pain and used as cough medicine and for diarrhea also. This drug is available in the form of different salts like codeine sulfate or codeine phosphate. This drug is available in the United State and Australia. Codeine hydrochloride is commonly used for cough treatment. Codeine is second example of opium alkaloids. Opium alkaloid contain up to 3 % drug. Codeine was extracted from natural sources or it can be synthesized by semi synthetic process. Thebaine is also known as paramorphine. This drug is also called as codeine methyl enol ether. This drug is an example of opiate alkaloid. Its name comes from the Greek words. Thebaine is similar to both morphine and codeine but it is used as stimulatory rather than depressant effect. This drug was administered with high dose then it gives convulsion and poisoning. Hydromorphone is also known as dihydromorphinone. Dihydromorphinone,^[16] and dihydromorphine was different derivatives and different drugs. This drug is commonly available in the form of hydrochloride salts and in the form of brand names like Palladone and Dilaudid. This drug is highly potent and effective with centrally acting analgesic drug. This drug is an example of opiates drugs. This drug is an example and derivatives of morphine. This drug is semi synthetic drug. Hydrocodone¹⁷ is an example of semi synthetic opioids. This drug was synthesized by codeine.

This drug is a one of the example of opioids drugs or alkaloids. This opium alkaloid was found in the opium poppy. Hydrocodone is a narcotic drug which is used or administered by orally. This drug is used for the cough. It is used as anti-tussive or cough suppressant. Hydrocodone is used in the treatment of sever to moderate pain. This drug is administered by orally. This drug is used in United States. Oxycodon,^[18] is 50 % more potent than hydrocodone. Oxycodone is an example of semi synthetic opioid drug. This drug was synthesized from the thebaine as opioid alkaloids. Thebaine was found in the opium poppy. Oxycodone is used in the treatment of pain which is moderate to severe pain. This drug is used for relief of moderate to severe pain. This drug was discovered or developed in 1917 in Germany. This drug was used as single ingredient medications. Oxymorphone is sold in the market under the brand names Opana, Numorphan, Numorphone. This drug is also known as 14- Hydroxydihydromorphinone. Oxymorphone is highly effective and powerful semi synthetic opioid analgesic or pain killer drug. This drug was discovered in Germany in 1914. This drug was patented by the USA by Endo Pharmaceutical Company in 1955. This drug was used in US market in January 1959. This drug is sold in the form of salt of hydrochloride. Ethylmorphine is also known as codethyline or dionine or ethyl morphine. Ethylmorphine is an example of opiate narcotic drug. This drug is used as analgesic agents. Ethylmorphine was manufactured at the Germany by the Merck in 1884. This drug was used as weaker alternative for heroin. Ethylmorphine,^[19] is chemically derived by morphine drug only differences is addition of ethoxy group i.e. OC₂H₅ group present at 3-OH group. Ethylmorphine drug is closely related to the methyl morphine i.e. codeine. Heroin is also known as diacetyl morphine or morphine diacetate. This drug is also known as diamorphine. Other street names of this drug is H, smack, boy, horse, brown, black, and tar. Heroin is 3, 6-diacetyl ester derivative of morphine. This drug is more potent than morphine by 2-4 times more potent and gives faster onset of action. Heroin was administered by the intravenous route. Diacetyl morphine or Heroin is used for both legal and medicinal drug for the treatment of cough suppressant and analgesic with anti diarrhea treatment. Diacetyl morphine or Heroin is under the control of Schedules I and IV of the Single Convention on Narcotic Drugs.

The long term treatment of drug addiction; when you cut off the opioid supply it gives following symptoms like; Large pupils; Diarrhea; Belly pain; Chills; Nausea and Vomiting; Body aches; Severe bad moods. It also gives drug addiction symptoms like

- Bloodshot eyes and looking tired.
- Changes in appetite.
- Changes in physical appearance
- Craving drugs.
- Difficulty completing tasks at work or home.
- Engaging in risky behaviors
- Issues with money.

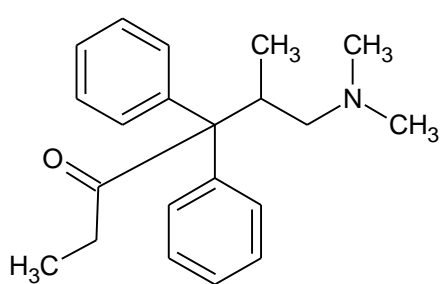
➤ Weight loss.

Diagnosis and tests for drug addiction can be done by Individualized treatment, either inpatient or outpatient through the complete examine by doctors. There are various therapies like exist for treating substance use disorder. In detoxification of drug; patient needs to stop the narcotic drug. Another therapy like Medication-assisted therapies; this treatment was carried out with detoxification. Another therapy for opioids addition is behavioral therapies

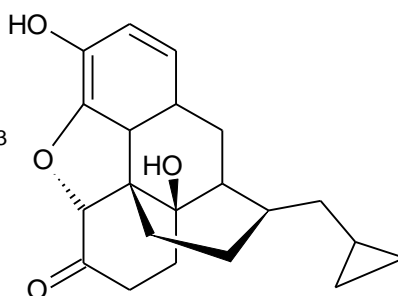
Medication for Opioid Addiction

There are various drug like Methadone; Buprenorphine; Naltrexone; Lofexidine; and Clonidine drug are used for opioid withdrawal. Methadone,^[20] is a long acting dose prevents withdrawal symptoms and eases drug cravings.

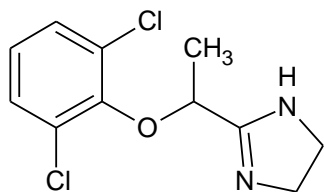
This drug is available in various brand names like Dolophine and Methadose. It is long acting opioid that affects the same parts of patient brain. Buprenorphine,^[21] is another medication which was approved by USFDA for the treatment of opioid dependence. It hits the same receptors in patient brain but not as strongly this drug was used in combination with other drug like Naltrexone.^[22] Buprenorphine available in the form of Tablets; Skin patch; Film placed in your mouth against your cheek; Implant that goes under your skin and lasts about 6 months. Naltrexone also blocks or inhibits opiate receptors. This drug is available in the form of orally and by intravenous injection. Lofexidine.^[23] hydrochloride drug is not an example of opioids but it is used for use for up to 14 days for the rapid detoxification. Clonidine is similar to Lofexidine hydrochloride. It is used to treat symptoms of opioid withdrawal.



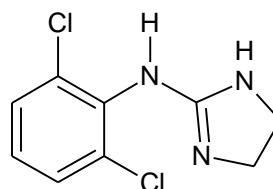
Methadone



Naltrexone



Lofexidine



Clonidine

CONCLUSION

In this review we discussed about narcotic addiction, and its treatment by various drug. We highlighted the traditional G-protein; Opioids receptors like kappa receptors, mu receptors and delta receptors. Sometimes; Narcotic drug addiction or opioids addiction can be life-threatening experience to patients. Narcotic drug addiction is a powerful and complex disease. Drug Addictions are not problems of willpower of patients. Narcotic drug addiction changes the brain function in such a way that it gives physically and mentally. Narcotic addiction treatment often requires lifelong care and therapy. It may take long-term process but medications and counseling can improve your chances of success.

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