



Review Article

MANAGEMENT OF DRUG ABUSE PATIENT THROUGH AYURVEDA

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ABSTRACT

Drug Abuse is a patterned use of a drug in which the user consumes the substance in amounts or with methods which are harmful to themselves or others, and it is a form of substance –related disorder. Drug abuse can be abuse of any substance including cigarettes, alcohol, cannabis, cocaine, Heroin, tobacco and others. It is a serious public health problem that affects almost every community and family in some way. It plays a role in many major social problems, such as drugged driving, violence, stress and child abuse. It can lead to homelessness, crime and missed work or problems with keeping a job. It harms unborn babies and destroys families. In some cases criminal or anti – social behavior occurs when the person is under the influence of a drug and long term personality changes in individual may occur. Indiscriminate use of drugs may produce mental, physical and moral deterioration of the individual and in some cases may lead to sexual perversion or crimes, use of some drugs may also lead to criminal penalties. During the last few decades the problem of drug abuse has almost reached epidemic proportions. A patient afflicted with the drug abuse should be first take careful history and then proper clinical examination we manage it using principles of Ayurveda i.e., *Nidana Parivarjan/Preventive measure, Padanshik kram* for abuse drug, Detoxification, *Siro Dhara, Sirolepa, Yoga, Meditation, Rehabilitation* and using supplementary medication as mention in our classical text.

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INTRODUCTION

Nowadays, words addiction, and addict, is not used in medicine due to their derogatory implication. Instead abuse, or harmful use, dependence, is used.^[1] Drug abuse is a major medical problem with extensive legal, social, moral, ethical and even political problems.^[2] It is a patterned use of a drug in which the user consumes the substance in amounts or with methods which are harmful to themselves or others, and it is a form of substance –related disorder. Alcohol and Tobacco are the commonest substances abused, followed by sedative and tranquilizers, cannabis, amphetamine, opiates and cocaine.^[3] Drug abuse is a serious public health problem that affects almost every community and family in some way. It plays a role in many major social problems, such as drugged driving, violence, stress and child abuse. It can lead

to homelessness, crime and missed work or problems with keeping a job. It harms unborn babies and destroys families. In some cases criminal or anti – social behavior occurs when the person is under the influence of a drug and long term personality changes in individual may occur.^[4] Indiscriminate use of drugs becomes dangerous, and produces a gradual mental, physical and moral deterioration of the individuals, and sometimes also sexual perversions or crime.^[5] Money and articles disappear from home, and needles, syringes, strange packets, etc. are found at home. During the last few decades the problem of drug abuse has almost reached epidemic proportions.^[6]

Aim

1. To study the pattern of Drug abuse, frequently abused drug, Reasons for drug abuse and Risk factor.
2. To study the Toxic effects of Drug abuse on human body.
3. To establish the complete protocol of Ayurvedic management and Rehabilitation in Drug abuse patient.

Materials used

This paper is based on textual review. Material related to Drug abuse and its Toxicity on human body was collected from modern texts and various websites. *Brihatrayi* and *Laghutrayi* has been reviewed to collect information on the relevant topic.

Pattern of Drug abuse

There are four patterns of drug abuse disorders.^[7]

1. Acute intoxication
2. Drug dependence
3. Withdrawal state
4. Harmful use

Acute intoxication

Acute intoxication is a transient condition, resulting in disturbance of the level of consciousness, cognition, perception, behavior or other psycho-physiological functions and responses.^[8] It is usually associated with high blood level substance.

Drug dependence

A state, psychic or sometimes physical resulting from interaction between a living organism and a drug, characterized by behavioral and other responses including a compulsion to take that drug on a continuous or periodical basis in order to avoid the discomfort of the absence.^[9]

Withdrawal state

Substance withdrawal is a condition where symptoms results from the cessation of substance of abuse accompanied by a maladaptive behavior change.^[10]

Harmful use

It is characterized by continued drug use despite awareness of harmful medical and / or social effects of drug being used and / or a pattern of physical hazardous use of drug^[11] (e.g. driving during intoxication).

Frequently abused drug^[12,13]

1. Alcohol
2. Tobacco

3. Opiates and their semi-synthetic or synthetic analogues like heroin, morphine, codeine, methadone, pethidine.
4. Tranquilizers, sedative and hypnotics-barbiturates, diazepam etc.
5. Cannabis and other hallucinogenic drugs like LSD.
6. Coca leaves and Cocaine
7. Amphetamine and related stimulants.
8. Miscellaneous-caffeine, Datura, anxiolytic, analgesics etc.

Reason for Drug abuse

1. Over the counter easy availability of certain drugs
2. Self-medication
3. Curiosity
4. Pleasure
5. Group pressure

Risk factors

Predisposing or risk factors responsible for drug abuse are as following.^[14,15]

- Unstable Home environment, often due to drug abuse or mental illness.
- Poor relationship with parents.
- Unhappy family relation.
- Inadequate supervision over adolescent's activities.
- Use of drugs by friends.
- Behavioral problems combined with poor parenting.
- Poor achievement in school, poor academic achievements.
- Drug use in the school, peer group or community.
- Availability of drugs from friends.
- Depression with regular use of depressant drugs.
- Excessive use of alcohol or depressant drugs by parents.
- Lack of ambition for future.
- Regular cigarette use.
- Not a believer in religion.

Toxic effects of Drug abuse on Human body

Drugs of abuse may be taken by injection (intravenous, subcutaneous or rarely intramuscular), by sniffing in to nostrils, through rectum or vagina, by inhalation, smoking, or orally.^[16] Drug abuse is harmful to the individual because it leads to mental and physical degeneration.^[17] The CNS, CVS, kidney, liver, lung,

skin and blood forming organs are most commonly involved in drug toxicity.^[18] In pregnancy negative effects of drug abuse on developing foetus. Woman who smoke during pregnancy deliver infants with significantly lower birth weight than non-smoking woman. Babies born of alcoholic mother often present Foetal alcohol syndrome (FAS) characterized by prenatal growth deficiencies in length and weight, short palpebral fissure, microcephaly and CNS anomalies.^[19] Other toxic symptoms of drug abuse are as following.^[20-22]

- Changes in mood such as anxiety or depression.
- Aggressiveness or irritability.
- Impaired memory and concentration.
- Unusual, bizarre behavior.
- Loss of appetite and weight.
- Constipated, emaciated due to loss of appetite.
- Impotence and sterility.
- Clumsy movements, unsteady gait, tremors.
- Reddening and puffiness of eyes, unclear vision, slurring of speech.
- Loss of interest, sleeplessness, lethargy and passivity.
- Disease such as hepatitis B or C or HIV from needle – sharing.
- Decreased memory and cognitive abilities.

Management

Drug abuse develops over time, the abuser's life and brain is altered and this makes recovery more difficult. The treatment must preferably be carried out in an institution to ensure adequate supervision so that abuser does not obtain secret supplies of drug from anywhere.

Treatment for drug abuse include:

1. Medical drug abuse treatment
2. Drug abuse rehabilitation programs

Medical drug abuse treatment

Ayurvedic principle and Ayurvedic medication used to ease withdrawal symptoms or prevent relapse, it includes:

1. **Nidana-parivarjana:** Elimination of the cause of the drug abuse. Find out risk factors which are responsible for addiction and eliminate them. The person should be removed to an institution, so as to remove him from the association with which the addiction started. Constant supervision to prevent addict from obtaining secret supplies of the drug.
2. **Detoxification:** The cardinal principles of treatment include detoxification by appropriate drugs.^[23] Detoxification consists of reduction in

dosage of drug over a period of one to 3 weeks.^[24] In dose reduction we follow the *Padanshik kram*. Person should alienate himself from the habitual malpractices (addiction) gradually. Adoption of good practices should also be in similar way.^[25] By this method of *Padanshik kram* the dose of abuse drug reduces step wise, not suddenly stop to avoid the harmful effect of sudden withdrawal. The psychosomatic clinical manifestation, observed during withdrawal is managed by following method.

- **Anxiety and Aggressiveness-***Brahmi vati, Ashwagandha churna, Ashwagandharishta, Jyotishmati taila, Sarashwatarishta.*
- **Insomnia-***Sarpagandha vati, Jatamanshi, Ashwagandharishta,* Intake of the powder of *Pippalimoola* mixed with jiggery.^[26]
- **Impaired memory-***Smriti sagara ras, Brahmi vati, Sarashwatarishta, Jatamanshi.*
- **Headache-***Godanti bhasma, Jatamanshi churna.*
- **Loss of Appetite-** *Hingwashtaka churna, Lavana Bhaskara churna, Chitrakadi vati, Agnitundi vati.*
- **Constipation-** *Triphala churna, Abhayarishta, Avipattikara churna.*

Along with internal medicine, *Panchkarma* (Detoxification) procedure is helpful in varieties of substance use disorder. *Dhara karma* is helpful in patients suffering from diseases like Psychosis, Anxiety neurosis, Insomnia, confusion, Alcoholism.^[27] *Shirodhara* is a procedure consisting of continuous pouring of a stream of medicated oil, decoction, milk, buttermilk etc on the forehead of the patient from a specified height for a specified period of time. It has been found to be effective in Headache, Insomnia, Anxiety, Depressive illness, Psycho somatic disorder^[28] etc.

Yoga therapy and meditation prove a good complementary treatment in patients already undergoing medical treatment. It is an important non-drug approach with positive safety and cost-effective. Some meditative posture *Padmasana, Siddhasana, Vajrasana* and *Savasana*^[29] relaxes the body completely. Calms the mind and reduces the tensions. *Pranayama* helps to develop gradual conscious control on breathing which has a wide range of benefits in improving the quality of life and mind-body function.

Drug Abuse Rehabilitation Programs

Drug abuse rehabilitation programs can be particularly helpful for those with severe or long-term substance abuse issues. Programs for drug abuse rehabilitation can be IPD with around the

clock care or OPD where the drug abuser attends only during the day. Programs for Drug abuse rehabilitation are designed to provide all services, a drug abuser need to succeed in quitting Drugs. It includes.

- Medical attention
- Behavioral treatment- Psychological counseling, it play vital role in substance use disorder, especially in rehabilitation. It started from 1st day of treatment and continued in rehabilitation programs.

Medical drug abuse treatment helps to overcome withdrawal symptoms and sometimes craving, psychological counselling helps in changing thoughts and behaviors of Drug abuser. It creates awareness about the ill-effects of drug abuse like Alcohol, Tobacco or any other addicted drug. Counseling provided by Medical practitioner or psychiatrist.

DISCUSSION

Drugs should normally be used for sound medical reasons only. With the increasing stresses of life and the varieties of drugs available, they are now being used for recreation, in an attempt to enhance performance, to produce a change to some desired state, to control anger or distress, to promote well-being, or as important tool for some unique experience in awareness, relationships and spiritual growth (more being, as with hallucinogens).^[30] Indiscriminate use of drugs creates problems of Drug abuse. *Acharya Charak* stated improper use of any drug is harmful for our body.^[31] Drug abuse is a generic term for the abuse of any drug, including alcohol and cigarettes. It is an extreme desire to obtain and use. Anyone can become a drug abuser, it includes all ethnicities, ages, social groups and genders can have Drug abuse problems. Drug abuse including alcohol or any other drug, may lead to health problems, social problems, morbidity, injuries, sexual offences, criminal offences, domestic violence, burglaries, motor vehicle accident, homicide, suicide, physical dependence or psychological addiction. Drug abuse shows both legal and illegal drugs can lead to drug abuse, it includes:

- Legal-over the counter- includes drugs like alcohol, cigarettes, pan *masala*, *gutaka* etc.
- Legal-prescription drugs like sedative, hypnotics, analgesics, tranquilizers etc.
- Illegal drugs- It includes Opium, heroin, cocaine, marijuana etc.

Drug abuse ravages the body and mind, loss of friendship and family, bizarre behavior and decreasing performance in work, it also creates

money problems and legal troubles. The management of Drug abuse divided into Medical drug abuse treatment and Drug abuse Rehabilitation.

Acharya Charak stated the concept of *Oka Satmya*,^[32] conduciveness developed due to continuous intake of particular substance, even though it is not beneficial for the body. Same condition develops in case of Drug abuse, which is not beneficial for the body but finally develop physical dependency or psychological addiction. To overcome *Acharya Charak* stated *Padanshik krama*^[33] in which gradual withdrawal of unwholesome practices and adoption of wholesome practices, results in eradication of unwholesome practices for ever and adoption of wholesome practices completely.^[34] *Padanshik krama* is a unique method described in our text; it is applicable to all abused drugs to minimize withdrawal symptoms.

Anxiety, Aggressiveness, Irritability, Decreased memory and Cognitive function is the common psychological manifestation, seen in maximum Drug abuse cases, as a withdrawal symptoms. It is treated by use of *Saraswata churna* with unequal amount of *Madhu* and *Ghrit*.^[35] *Ashwagandharista*^[36] is also very effective in this case.

Many drug withdrawal manifest as insomnia, it is treated by *pippali churna* with jiggery.^[37] *Saraswatarista*^[38] is also very effective in this case. *Shrikhandasav*^[39], *Eladi modak*^[40] mention in *madatya chikitsa*, is helpful to overcome withdrawal symptoms of Alcohol. *Shrikhandasav* used as a *Padanshik krama* in tapering alcohol dose. *Sirodhara*^[41], *Sirolepa*^[42], *Sirovasti*^[43] is effective procedure in treating headache, insomnia, anxiety and other psychic disorders appear during withdrawal of drug. *Sirodhara*^[44] can be done continuously for 7 days/14 days/21 days for 45 minutes to 1 hour, depending on condition of the patient. During drug withdrawal patient suffering from loss of appetite, constipation, is best treated by available Ayurvedic drugs. Nausea, vomiting seen in drug withdrawal, is treated by *Eladi churna*.^[45]

Rehabilitation is the process whereby a man is made mentally, physically, socially, vocationally and economically equivalent to his state before he became sick or injured.^[46] It is one of the important branches of medical practice. It includes psychological counseling, which is important in de-addiction.^[47] It creates awareness about the ill-effect of drug abuse. Yoga, *Pranayama*, Meditation, effective to reduce mental anxiety, irritation,

aggressiveness. It improves cognitive function and helps the patient to calm down the mental stress.

CONCLUSION

A majority of drug abusers are neurotic individuals with personality problems; they use the drugs just for kick or to escape from the realities of life. Such indiscriminate use of drugs creates problems of drug abuse. It is the major problem in the world including India.

Ayurvedic approach to the treatment of drug abuse involves a number of factors, it includes Detoxification and it consists of reduction in dosage of abuse drug. We follow *Padanshik kram* for it; it is an effective method in dose reduction of any abuse drug, to avoid the sudden withdrawal effect. Improving general health, appetizing drug, attention to bowels, psychotherapy, *Shirodhara*, *Siro-abhyang*, Yoga, Meditation has important role and applicable in drug abuse patient.

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