



Review Article

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A REVIEW ON TOBACCO ADDICTION AND ITS MANAGEMENT: AN AYURVEDIC APPROACH

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ABSTRACT

Addiction is a very common habitual psychological or physiological disorder in this modern era. It is a condition of dependence on any substances or drugs. It harms human beings along with its social consequence. Sudden withdrawal of addicted drugs produces different types of psychosomatic disorders. Addiction is not only about drug addiction or alcohol addiction or substance addiction. In the Ayurvedic view, overuse of any aspect and every aspect is considered an addiction. Addictions influence the physical, emotional and psychological behaviour of an individual with a wrong effect. Tobacco and alcohol are the most widely consumed psychotropic drugs which are used worldwide. The common use of both increases the risk of non-communicable diseases to many folds. Ayurvedic texts have described different types of De-addiction treatment which can be applied in this context along with replacement therapy with medicines described in the Madatyaya chapter of Charaka Samhita Chikitsa sthana. The main aim of this review article is to compile and evaluate the concept of tobacco addiction and its management. All the descriptions of addiction mentioned in different Ayurvedic texts were critically analyzed and discussed to check their relation.

Keywords: Addiction, De-addiction, Tobacco, Alcohol

INTRODUCTION

Tobacco consumption is a major social public health problem in India as well as throughout the world. There are many different forms of smoking and smokeless tobacco available in India, like a cigarette, bidi, gutka, jarda, pan masala etc. which is very common. Death due to Tobacco use is nearly six million people worldwide each year. According to the World Health Organization (WHO) estimate globally there were 100 million premature deaths due to tobacco in the 20th century, and if the current ratio of tobacco addiction continues, this number is expected to rise to 1 billion in the 21st century in India ¹.

Tobacco is extracted from around 70 known species of tobacco plants worldwide. *Nicotiana tobaccum* is a very common species of tobacco which are used commonly. Most of the tobacco from Northern India comes from the species *Nicotiana rustica* ². Different types of diseases like ischemic heart diseases, cancers, diabetes, chronic respiratory diseases are the leading causes of death globally and are associated with tobacco use. According to WHO, thirty-eight million people die each year from NCDs, of which nearly 85% of NCD deaths occur in low- and middle-income countries.

Composition of tobacco

Tobacco products contain around 5000 toxic substances. The most important and dangerous constituents are:

1. Nicotine
2. Carbon Monoxide
3. Tar

Nicotine is the major cause of the behavioural effects of tobacco. It is a poisonous substance present in tobacco leaves that causes addiction. Nicotine influences and reinforces all tobacco-use behaviour. After absorption, nicotine travels rapidly to the brain and binds to the receptors in the brain where it affects the function of cerebral metabolism. Nicotine is then distributed throughout the body, and its effects are seen in the body.

The action of the Nicotine

Nicotine is the main active toxic chemical in tobacco ³. Nicotine also increases the production of dopamine in the body. This is also referred to as the brain's "happy" chemical. Dopamine activates the area of the brain associated with pleasure and reward. Like another drug, the use of tobacco over time can cause physical and psychological addiction. This is also true for other smokeless forms of tobacco, such as snuff and chewing tobacco.

Ayurvedic concept of Addiction

Any type of substance which we intake whatever it may be healthy or unhealthy, safe or unsafe, good or bad will be homologues then it is called Satmya or Oak-Satmya (habituation/homologation) ⁴. Maharshi Charka stated that Satmya & Upashaya have the same meaning. Chakrapani explained that Satmya is Oak-Satmya which is preceding by practices regularly ⁵.

Maharshi Charka again stated about Satmya that it is an adaptation of any substance by living after continuous & constantly ingestion. The addicted substance, though they are unsafe & injurious to living, become homologues (Satmya) & so the body is demanded to fulfil the level of those substances cells

and when this cellular level is decreased, withdrawal signs & symptoms will be developed.

Acharya Charaka has also stated that if Apathya (unwholesome) substance has become wholesome to a person because of the habit or nature of the place of habitant, then sudden & total withdrawal of this substance even it non-homologous does not give to persons. Acharya Vagbhata also stated that sudden discontinuation of unhealthy things or indulgence of healthy things gives rises to disease.

Risk factors for tobacco initiation

Following factors influence the addiction to tobacco use:

Biological

In the adolescent age group

- (a) For establishing independence and autonomy,
- (b) Forming a coherent self-identity and
- (c) Adjusting to psycho-social changes associated with physical maturation.

Gender: use of tobacco is common among males in India.

Psychological

Low emotional stability and risk-taking behaviour are very common in tobacco users. The existence of some mental diseases also increases the risk of tobacco use.

Social and Environmental

Lower education status, attraction towards role models, cultural practices and many other social and environmental factors influence tobacco addiction.

Clinical features of withdrawal from addiction

1. Agitation
2. Anxiety
3. Instant craving for Nicotine
4. Insomnia
5. Dizziness
6. Poor concentration
7. Depression
8. Hunger feeling
9. Indigestion
10. Constipation ⁶

Ayurvedic pathophysiology in withdrawal

Due to intake of these types of substances aggravation of one or more doshas (body constituents) like Vata, Pitta and Kapha occur.

Use of Tobacco Ajowan churna

Table 1: Use of Tobacco Ajowan churna

Tobacco- Ajowan churna	D1- D4	Tobacco-4mg + Ajowan-2gm	>2week
D5- D8	Tobacco-3mg + Ajowan-2gm		
D9- D12	Tobacco-2mg + Ajowan-2gm		
D13- D16	Tobacco-1mg + Ajowan-2gm		
D17	Ajowan-2gm		

In drugs addiction vitiation of Vata causes various symptoms to occur like headache, insomnia, vivid dreams, hallucinations, anxiety, depression, restlessness, constipation & tremor and vitiation of Pita causes gastric upset, excessive sweating, giddiness and vitiation of Kapha cause excessive sleep, lethargy, heaviness in the body, While vitiation of Tridosha causes the combination of the above clinical features.

Symptoms of Tobacco and Nicotine Addiction

Tobacco addiction may be present if –

- The patient cannot stop smoking or chewing while despite attempts to quit
- The patient has withdrawal symptoms when they try to quit like shaky hands, sweating, irritability, or rapid heart rate
- The patient must smoke or chew after every meal.
- The patient needs tobacco products to feel “normal”
- The patient gives up activities or won't attend events where smoking or tobacco use is not allowed.
- The patient continues to smoke despite health problems. ⁷

Management of withdrawal and Drugs Addiction

There are mainly two steps for the management of withdrawal and tobacco addiction.

1. Pharmacological treatment
2. Non-pharmacological treatment

Under these two steps of treatment there are two types of treatment that have to be required for de-addiction of tobacco, first is the treatment for withdrawal and the second one is the rehabilitation treatment.

Pharmacological Treatment

Pharmacological intervention has an important role in the management of substance abuse. It is very important not only in the withdrawal treatment but also in the long-term management.

Ayurvedic Methods

In Ayurvedic texts, various types of procedures are mentioned to avoid the harmful effects of the addiction to the drug. Padanshik Karma (alienation and adoption in quarter portion) is one of the important procedures among them. By the method of Padanshik karma, the dose of addicted drugs is regularly decreasing step wise so that there are fewer chances of appearing withdrawal symptoms. If the withdrawal symptom appears then they are treated symptomatically. ⁸

Symptomatic Management of withdrawal and drug Addiction

Table 2: Symptomatic Management

Clinical feature	Symptomatic Management
Headache	The dose of the powder Pippalimoola (Root of <i>Piper longum</i> Linn.) for adults is 2 to 3 grams, to be taken twice daily.
Indigestion and Loss of Appetite	Panchakol Churna 500 mg twice a day with lukewarm water.
Diarrhoea	Bilvadileha 6 gm thrice a day
Stomach Cramp	Mix 1 teaspoon each of mint juice and lime juice; add a few drops of ginger juice and a pinch of black salt. Drink this mixture to alleviate pain.
Hunger feeling	The seeds of Apamarga (<i>Achyranthes aspera</i>) should be cooked like rice by adding milk.
Anxiety and Agitation	1gm of Sarasvata choorna mixed with madhu (honey) and ghrita (cow's ghee) twice a day.
Insomnia	Guda Pippalimool Yoga 4 gm with 1 Glass of Milk at bedtime
Constipation	Katuka (<i>Picrorhiza kurroa</i>) - 3 gm at bedtime with lukewarm water.

Nidana-parivarjana (Avoidance of etiological factors)

Elimination of the cause of the addiction to tobacco is also very important. Find out the risk factors which are responsible for addiction and eliminate them.

Other important medicines for tobacco addiction

1. Combination of Ashvagandha churna, Giloya churna, Chopchini churna act as balya and hence these are used for debility, Anti-bacterial, Immunostimulatory, Antistress, Cardioprotective.
2. Dashmooladi kwath⁹ - is Anti-inflammatory, Antirheumatic or Anti-arthritis, Analgesic, Antispasmodic, Antioxidant, Neuroprotective, Anti-paralytic, Uterine detoxifier
3. Triphaladi gandush¹⁰ - Removes sliminess in mouth, heals ulcer quickly, relieves burning sensation and thirst.
4. Khadiraadi gutika¹¹ - acts as an oral antiseptic, anti-inflammatory, astringent and expectorant.

External medication and procedure for withdrawal and Drug Addiction

Abhyanga (therapeutic massage)

It is done with warm, herbal medicated oil. It helps to regulate Vata dosha and relieving stress, anxiety.

Shiro Abhyanga (therapeutic oil massage to head)

Application of medicated herbal oil to the head is said to be Shiro Abhyanga. It is commonly used to remove stress.

Shirodhara (pouring of medicated oils over the forehead)

It involves gently pouring fluids like decoction, medicated oil, medicated milk, medicated buttermilk and water overhead continuously for a fixed duration of time. This process is very effective in insomnia.

Modern Methods

Nicotine Replacement Therapy (NRT)

Different formulations of nicotine replacement therapies (NRTs) now exist, including the transdermal nicotine patch, nicotine spray, nicotine gum, and nicotine lozenges.

Varenicline

Varenicline is a prescription medication used to treat tobacco use disorder.

Non-pharmacological Treatment

- Psychological Counselling
- Yoga Therapy and Meditation
- The action of Ayurveda principles with characteristics- Achara Rasayana (behavioural rasayana), Sadvritta (good conduct) and Satvajay Chikitsa (subjugation of mind/counselling).

CONCLUSION

Addiction can be managed by the Ayurvedic principle and drugs without complication. In Ayurvedic texts, various types of procedures and drugs are mentioned. If we properly use these methods and procedures, we recover from withdrawal symptoms and after a period we will be completely free from addiction. So, it is concluded that these procedures and drugs help reduce addiction. Along with all this, these also improve physical, mental and psychological health and improve patient social and economic status too.

REFERENCES

1. <https://www.who.int/news-room/fact-sheets/detail/tobacco> #dated 01-09-2021 time 13:11 IST.
2. VV Pillay, Modern Medical Toxicology, Chapter-34, Reprint edition. New Delhi: Jaypee Brothers Medical Publishers; 2005. p.546.
3. VV Pillay, Modern Medical Toxicology, Chapter-34, Reprint edition. New Delhi: Jaypee Brothers Medical Publishers; 2005. p.549.
4. Dr. Ramkaran Sharma and Vaidya Bhagwan Das, Charaka Samhita, Vol-II, Vimansthana, Ch-1, ver.20, Reprint edition. Varanasi: Chaukhamba Sanskrit Series Office. 2012. p.122.
5. Dr. Ramkaran Sharma and Vaidya Bhagwan Das, Charaka Samhita, Vol-I, Sutra sthana, Ch- 07, ver.36, Reprint edition. Varanasi: Chaukhamba Sanskrit Series Office. 2012. p.153.
6. Porte Sharad M. Ayurvedic Concept of addiction, withdrawal and its solution. International Journal of Pharmacology & Toxicology. 2014; 2 (2): 41-45.
7. Noori Aara et al. Effect of Ayurvedic Management in Tobacco Addiction-A single case study. International Ayurvedic Medical Journal, 2021: 313-317.
8. Dr. Ramkaran Sharma and Vaidya Bhagwan Das, Charaka Samhita, Vol-I, Sutra sthana, Ch- 07, ver.37, Reprint edition. Varanasi: Chaukhamba Sanskrit Series Office. 2012. p.153.
9. Prof. Siddhi Nandan Mishra, Bhaisajya Ratnawali, Vol-II. Mukha Rogadhikara, Ch- 61, ver.80, 1st edition. Varanasi: Chaukhamba Surbharti Prakashan. 2005. p.958
10. Prof. Siddhi Nandan Mishra, Bhaisajya Ratnawali, Vol-II. Mukha Rogadhikara, Ch- 61, ver.69, 1st edition. Varanasi: Chaukhamba Surbharti Prakashan. 2005. p.957

11. Prof. Siddhi Nandan Mishra, Bhaisajya Ratnawali, Vol-II. Mukha Rogadhikara, Ch- 61, ver.96, 1st edition. Varanasi: Chaukhamba Surbharti Prakashan. 2005. p.960

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