



A REVIEW OF VISHAGHNA DRAVYAS USEFUL IN TOBACCO DE-ADDICTION

Chandra Shekhar Pandey¹, Niraj Kumar Pandey², Jai Kumar Singh³

1. PG scholar Dept. of Agadatantra, Govt. Ayurvedic College, Patna. India
2. PG scholar Dept. of Agadatantra, Govt. Ayurvedic College, Patna. India
3. Dr. (Prof.) & HOD. Dept. of Agadatantra, Govt. Ayurvedic College, Patna. India

Corresponding Author: dr.pandeycshekh@gmail.com

<https://doi.org/10.46607/iamj4910072022>

(Published Online: July 2022)

Open Access

© International Ayurvedic Medical Journal, India 2022

Article Received: 27/06/2022 - Peer Reviewed: 04/07/2022 - Accepted for Publication: 07/07/2022



ABSTRACT

The foundation of *Ayurveda* is based on eight clinical branches (*Ashtang Ayurveda*). Among these branches, *Agadatantra* is one of the clinical branches in which types, and features of poison alongwith their effects on living and their treatments are also elaborated. In *Samhita*, the poison is said to be mainly of two types' i.e; *Sthavara Visha* and *Jangama Visha*. A general principle of treatment of poisoning is explained in *Ayurvedic Samhitas* like *Charaka*, *Sushruta*, and *Vagbhata*. In India, among the addicted population, 60% of people are dependent on various products containing tobacco, whereas 30% with alcohol addiction, which is the main gateway to other more toxic drugs^[1]. Nicotine is the most widely consumed psychotropic drug worldwide. Major causes of tobacco addiction at a younger age are a genetic predisposition, environmental factors, parental negligence, *Pragyaparadh* (intellectual blasphemy), *Dushita Ahara* (unhealthy diet regimen), and search for pleasure or stress reliever. *Achar Rasayan*, *Sadvritta*, and *Satvavajay Chikitsa* are the preventive as well as curative measures of de-addiction. Symptomatic withdrawal treatment can be done by medicated smoke/*Dhumapana*, psychological counseling, *Achara Rasayana*, *Sadvritta*, and *Satvavajay Chikitsa* are useful in reducing tobacco dependence. *Ayurveda* also advocates medicated smoke *Dhumpana*. Use of daily and seasonal regimens and *Dosha shodhana* (elimination of vitiated humors) in day-to-day life is essential to prevent addiction problems. In a nutshell, change in lifestyle, adoption of *Ayurveda* treatment principles, control of intellectual blasphemy, and administering the environmental issues can deal with addiction problems. The *Vishaghan yoga*, *Avasthika chikitsa*, *Pittashamak Chikitsa*, and *Mansik doshahar Chikitsa*

may be followed for tobacco withdrawal symptoms. It has significant properties to pacify tobacco withdrawal symptoms.

Keywords: Tobacco addiction, *Sadvritta*, *Satvavajaya*, Nicotex chewing gum, De-addiction, Ayurved interventions.

INTRODUCTION

The foundation of *Ayurveda* is based on eight clinical branches (*Ashtang Ayurveda*). Among these branches, *Agada tantra* is one of the clinical branches in which types, features of poison alongwith their effects on living, and their treatments are also elaborated. In *Samhita*, the poison is said to be mainly of two types' i.e; *Sthavara Visha* and *Jangama Visha*. A general principle of treatment of poisoning is explained in *Ayurvedic Samhitas* like *Charaka*, *Sushruta*, and *Vagbhata*. In India, among the addicted population, 60% of people are dependent on various products containing tobacco, whereas 30% with alcohol addiction, which is the main gateway to other more toxic drugs^[1]. Nicotine is the most widely consumed psychotropic drug worldwide. Major causes of tobacco addiction at a younger age are a genetic predisposition, environmental factors, parental negligence, *Pragyaparadh* (intellectual blasphemy), *Dushita Ahara* (unhealthy diet regimen), and search for pleasure or stress reliever. *Achar Rasayan*, *Sadvritta*, and *Satvavajay Chikitsa* are the preventive as well as curative measures of de-addiction. Symptomatic withdrawal treatment can be done by medicated smoke/*Dhumapana*, psychological counseling, *Achara Rasayana*, *Sadvritta*, and *Satvavajay Chikitsa* are useful in reducing the dependence on tobacco. Ayurveda also advocates medicated smoke *Dhumpana*. Use of daily and seasonal regimens and *Dosha shodhana* (elimination of vitiated humors) in day-to-day life is essential to prevent addiction problems. In a nutshell, change in lifestyle, adoption of Ayurveda treatment principles, control of intellectual blasphemy, and administering the environmental issues can deal with addiction problems. The *Vishaghan yoga*, *Avasthika chikitsa*, *Pittashamak Chikitsa*, and *Mansik doshahar Chikitsa* may be followed for tobacco withdrawal symptoms. It

has significant properties to pacify tobacco withdrawal symptoms.

Keywords: Tobacco addiction, *Sadvritta*, *Satvavajaya*, Nicotex chewing gum, De-addiction, Ayurved interventions.

Introduction:

Tobacco may be smoked (in the form of cigarettes, beedis), chewed (as Gutka, Khaini, etc), and inhaled as snuff. Cigarettes and other forms of tobacco are addictive because of the presence of nicotine. Nicotine is the most widely consumed psychotropic drug worldwide. In India, 60 % of people are dependent on various substances like ganja containing tobacco which is the main gateway to other more toxic drugs like ganja. [2] Nicotine is a colorless, toxic alkaloid made up of carbon, hydrogen, and nitrogen. Nicotine addiction is one of the leading causes of death and disease in India, with about 1.35 million people dying each year. In the country, a wide range of tobacco products is offered at extremely affordable prices. [3] (According to the Global Adult Tobacco Survey India, 2016-17, approximately 267 million adults (15 years and older) in India use tobacco (29% of all adults). Smokeless tobacco is the most popular type of tobacco in India, and popular brands include khaini, gutkha, betel quid with tobacco, and Zarda. Bidi, cigarettes, and hookah are the most common tobacco smoking methods. [4] Tobacco plants originally grown in America is now cultivated nearly all over India. Tobacco is a *Sthavara*, *Patra Visha*[5] but it is not mentioned in *Samhita Kala*. It was introduced in *Nighantu Kala* by *Yogaratanakara*. Tobacco's therapeutic as well as toxic action has been explained in his text. It describes that when tobacco is taken in the excess amount it produces various hazard effects like intoxication, giddiness, vomiting, *Pitta*

aggravation, and purgation, which also diminishes *shukra*. [6]

Addiction is defined by the **World Health Organization** as "repeated use of a psychoactive substance to the extent that the user is:

- Periodically or chronically intoxicated
- Shows a compulsion to take the preferred substance(s)
- Has great difficulty in voluntarily ceasing or modifying substance use
- Exhibits determination to obtain psychoactive substances by almost any means, and
- Tolerance is prominent and a withdrawal syndrome frequently occurs when substance use is interrupted." [7]

Aim & objective:

1. To elaborate and discuss the Nicotine addiction as per *Ayurveda*
2. To elaborate and discuss the solution to Nicotine addiction and its withdrawal as per *Ayurveda*.

Stages of development of addiction:

The initiation and development of tobacco use among children and adolescents progress in stages:

1. Forming Attitudes and Beliefs about Tobacco
2. Trying Tobacco
3. Experimenting with Tobacco
4. Regularly Using Tobacco
5. Becoming Addicted to Tobacco
6. This process generally takes about 3 years. [8]

Symptoms of tobacco addicts:

A heavy smoker with tobacco-

1. The heart shows features of palpitation, pericardial distress, tachycardia, angina (chest pain), etc.
2. Dimness of vision with loss of clarity, but rarely blindness.
3. Digestive disturbances comprise loss of appetite, gastritis, peptic ulcer, and constipation.
4. Chronic pharyngitis, bronchitis, laryngitis, bronchial asthma, chest pain related to respiratory infection.
5. Carcinoma of lip, mouth, and lungs.
6. Lethargy, headache, insomnia, mental lassitude, fine tremors of fingers.

7. The effect upon fertility, abortion in the condition of a pregnant addict. [9]

Complications of Withdrawal (withdrawal syndrome):

The main withdrawal effects of tobacco are anxiety, irritability, sleeplessness, anger, palpitation, perspiration, headache, muscle cramps, lack of appetite, etc. [10, 11]. It affects each and every organ of the body, mainly atherosclerosis, stroke, heart diseases, eye, lung-COPD, asthma, cancer, neuritis, vital organs degeneration along with psychosocial behavioral impact [12,13].

Withdrawing tobacco from the habit leads to craving, withdrawal symptoms, and high rates of relapse.

Withdrawal symptoms begin within a few hours from the last use of nicotine manifest as:

- Dysphoric or depressed mood
- Insomnia
- Irritability, frustration, or anger
- Anxiety
- Difficulty in concentrating
- Restlessness, decreased heart rate
- Increased appetite or weight gain. [8]

Nicotine reward system:

Nicotine is thought to affect the brain reward system by increasing dopamine concentrations through interacting with nicotinic acetylcholine receptors. It has been shown to mimic endogenous (or the body's natural) acetylcholine neurotransmitters. Nicotine increases dopamine efflux in the reward pathway by mimicking acetylcholine at presynaptic nicotinic receptor sites, and exciting dopaminergic neurons [15]. Nicotine receptors are located throughout the brain; however, nicotine exerts its greatest effects on brain reward in the NA [14,15,16]. By acting on these neurons, nicotine increases the release of dopamine in the NA [14,15,16]. Nicotinic antagonists, chemicals that block the actions of nicotine at its receptor, inhibit dopamine release while nicotinic agonists increase dopamine release [14,15]. Thus, nicotine leads to increased dopamine concentrations in the brain reward pathway like other drugs of abuse.

Treatment Implications of the Brain Reward System

Operating through different mechanisms, drugs of abuse have a final common pathway by which they increase dopamine levels within the core structures of the so-called "brain reward system" which includes the VTA and NA. A balance between the negative effects of the drug and positive feelings associated with stimulation of the brain reward system determines if an individual will enjoy and continue using the substance or not [14,15]. Generally, the positive effects or "high" of using a drug occur immediately or shortly after use, by the action of increasing dopamine.

Pharmacotherapy of Drug Addiction:

Pharmacotherapeutic interventions have been developed to decrease drug use by influencing the brain reward system. Bringing consequences or punishment closer to the reinforcement of drug use, modification of neurotransmitters to decrease drug intake, and long-term substitution with a less addictive and cross-tolerant medication (14).

Ayurvedic Management of Tobacco addiction:

Chikitsa Sutra:

Role of Change in Lifestyle (*Satvavajay Chikitsa*)

-Pranayama: Acharya Charak suggested the habit of doing meditation, taking a nutritious diet, and adopting *Pranayama*

-Satvavajay Chikitsa: Ayurved psychotherapy, which includes counseling, *Pathya*(diet) therapy, and controlled use of objects. [17,18]

-Ojovardhak: Milk is *Ojovardhak*,

-Puran Ghrītkalpak: this plays an important role in the prevention and management of psychic, psychosomatic, and central nervous system (CNS) issues. [19]

-Deepan-Pachan-Anuloman

- Chewable Aushadhi (Mukh roga as khadira)

-Vishaghna, Medhya dravyas

-Pittsamak / Pitt-sarak Chikitsa (By Vishaghna dravyas)

CHIKITSA:

Table 1: Avashthik Chikitsa

Oral cavity infection	<i>Khadira</i>	<i>Vishaghna</i> , Antiseptic, Anti-inflammatory
Bronchial asthma	<i>Shunthi/Hingu</i>	<i>Vishaghna</i> , <i>Dipana-Pachan</i> , <i>Kaphaghna- Shwashara</i>
Anxiety	<i>Shankpushpi</i>	Immunomodulator - <i>Medhya Rasayana</i>
Headache	<i>Jatamansi</i>	<i>Vishaghna</i> , <i>Vednasthapan</i> , <i>Nidrajanan</i>
Insomnia	<i>Sarpagandha</i>	<i>Nidrajanan</i>
Muscles cramp	<i>Ajwan</i>	<i>Vedna Sthapana</i>
Loss of appetite/Constipation	<i>Hingu</i> , <i>Eranda</i>	<i>Vishaghna</i> , Appetizer, Mildlaxative, Vatahar
Bronchitis, Pharyngitis	<i>Haritaki</i>	For throat disease
Irritability & Frustration	<i>Kamal</i>	Mental agitation and insomnia
Loss of clarity (vision)	<i>Haritaki+Bibhitaki+Amala</i>	Increase the power of sense organs(chakshu-indriy)
Diminishes <i>shukra</i>	<i>kapikachhu</i>	<i>Balya and Bringhana</i>

Chikitsa based on Rasa-Gunadi

Table 2: (Pitta Samak / Pitta Sarak Chikitsa)

<i>jyotismati</i>	<i>Madhur-Tikt - Kashay, Sheet, Katu, Manas-doshahara, Pitt-saraka</i>
<i>Haritaki</i>	<i>Panchrasa, Ushna, Madhura, Pittsamak (madhur-tikta-kashaya), Rasayana</i>
<i>Amalaki</i>	<i>Panchrasa, Madhur -Sheet (Pittsamak), Chakshusya,</i>
<i>Guduchi</i>	<i>Tikta-Kashaya (Pittsamak), Ushna, Madhur</i>
<i>Apamarga</i>	<i>Katu-tikta, Ushna, Katu, Pitt-sarak</i>
<i>Khadira</i>	<i>Tikta-Kashaya (Pittsamak), Sheet, Katu,</i>

Table 3: Manasa dosha Chikitsa

<i>Kamal</i>	<i>Mansik daruvala</i> , Mental agitation, and associated insomnia
<i>Jatamansi</i>	<i>Samjansthapna</i> , <i>Medhya</i> , <i>Balya</i> , <i>Vedanasthapan</i> , <i>Nidrajanan</i>
<i>Shankhpushpi</i>	Immunomodulator- <i>Medhya</i> ,
<i>Jyotishmati</i>	<i>Samjanasthapan</i> , <i>Medhya</i> , <i>Balya</i> , <i>Vedanasthapan</i> , <i>Nidrajanan</i> , <i>Manas-dashahara</i>

Table 4: Enhancing Dopamine

<i>Kapikachhu</i>	Increases dopamine [20]
<i>Centella asiatica</i>	Increases dopamine [21]
<i>Bacopa monnieri</i> ,	Increases dopamine [21]
<i>Withania somnifera</i>	Increases dopamine [21]

DISCUSSION

When stimulated by drugs of abuse, addiction often occurs especially in those who are genetically or otherwise neurochemically vulnerable. Drugs of abuse also stimulate structures in the reward pathway, primarily acting on dopaminergic neurons in the VTA and NA pathways. As previously stated, in his text, Yogratnakara discussed both the medicinal and harmful effects of tobacco. Excessive ingestion causes *Pitta* aggravation and *Shukra* depletion, as well as redness and erosion and a burning feeling in the oral mucosa. Hence, Ayurvedic management for tobacco withdrawal symptoms is to be followed by *Vishagha dravyas*, *Avasthik chikitsa*, *Pittshamak chikitsa*, and *Manas doshahar chikitsa*. It can be prevented by taking firm decisions concerning illicit activities. Ayurveda is one of the oldest integrated as well as holistic sciences which help out to get the fundamental core of the disease. On the basis of the above-mentioned features of tobacco as well as the signs and symptoms of its excessive consumption, we have chosen medications that have the opposite toxic impact of tobacco and also aid in de-addiction by minimizing the risk of addiction development.

CONCLUSION

A tobacco addict awareness module can be prepared to prevent addiction of a person and to de-addict them. However, Ayurveda principles such as daily good conduct dietary guidelines, Yoga, and Panchakarma are applicable in de-addiction. Tobacco addicts are treated with Ayurvedic principle and medications

without complications. We may conclude that these medications are beneficial in lowering the harmful effects of tobacco without producing any harmful dependency as well as addiction. In addition, it helps to improve physical, mental, and psychological wellness. Also, it enhances the social and economic position of the patient in society.

REFERENCES

1. World Health Organization. Available from: https://www.who.int/substance_abuse/publications/global_status_report_2004_overview.pdf.
2. Global Status Report on Alcohol 2004. Geneva, Switzerland: Department of Mental Health and Substance Abuse, World Health Organization; 2004.
3. Pal R, Tsering D. Tobacco use in Indian high-school students. *Int J Green Pharm*. 2009, 3: 319-23.
3. Available from: <https://www.verywellmind.com/nicotine-facts-you-should-know> [Last accessed on 2021 Dec 25].
4. Available from: <https://www.who.int/india/health-topics/tobacco> [Last accessed on 2021 Dec 25].
5. Shree Lakshmipati shastri, Yogratnakar, Dhanyaadiphal kandshakhguna /3-5, Varanasi; Chaukhamba orientalia;2017. P-34
6. Shree Lakshmipati shastri, Yogratnakar, Dhanyaadiphal-kandshakhguna /3-5, Varanasi; Chaukhamba orientalia;2017. P-35
7. Management of Substance Abuse. WHO Lexicon of alcohol and drug terms. Available From: <http://whqlibdoc.who.int/publications/9241544686.pdf?ua=1>
8. National Cancer Control Program, Ministry of Health and Family Welfare, Govt, of India – 2005

9. Forensic Medicine and Toxicology, edited by R.N. Karmakar, Vol 1&2(Combined),4th Edition, Academic publishers Kolkata
10. Kishore S, Garg BS, Muzammil K. Tobacco addiction amongst adolescents in rural areas of district Wardha. JK Science 2007; 9:79-82.
11. Gulhane P, R, Rathi B. Assessment of Prevalence and Psychosocial behaviour of Tobacco Addictive School going Children with Awareness for Deaddiction. IJAM,2020;11(2):300-305
12. Drobles DJ. Concurrent alcohol and tobacco dependence. Alcohol Res. health. 2002; 26:136- 142
13. Holani SR, Rathi RB, Rathi B. Survey Study to assess the awareness and health impact of tobacco addiction in children of Zilla Panchayat Schools of Wardha. Journal of Indian System of Medicine. 2020 Jan 1;8(1):41
14. Lowinson, J; Ruiz, P; Millman, R; Langrod, J. *Substance Abuse: A comprehensive Textbook 3rd Edition*. Williams & Wilkens 1997.
15. Niesink, R; Jaspers, R; Kornet, L; van Ree, J. *Drugs of Abuse and Addiction: Neurobehavioral Toxicology*. CRC Press 1999
16. Ritz, Mary. *Reward Systems and Addictive Behavior*. Chapter 5, Pg 124-149.
17. Ritz, Mary. *Molecular mechanisms of addictive substances*. Chapter 6. Pg150-189.
18. Koob, G.; Nestler, E. The Neurobiology of Drug Addiction. *The Journal of Neuropsychiatry and Clinical Neurosciences* 1997; 9:482-497.
19. Sastri K, Chaturvedi K. Sutrasthan 11/54. In: Agnivesh, Charaka Samhita. 2nd ed. 2nd Vol. Varanasi, India: Chaukhambha Orientalia; 2008. p. 184.
4. 18. Tripathi Jyoti S. Dimensions of Satvavajaya Chikitsa (Ayurvedic Psychotherapy) & their clinical applications. J Annals Ayu Med 2012; 1:31-38.248.
5. 19. Bharat R, Wanzari A, Rajput DS, Renu R. Physico-chemical analysis of Puranaghrut (old, clarified butter) with special reference to fatty acid profile. J Ind Sys Med 2018; 6:4-9.
6. 20. Journal of Traditional and Complementary Medicine, <http://www.jtcm.org>
7. 21. Phytotherapy research: PTR, Author Manuscript, Europe PMC funders, available in PMC 2015 January 30

Source of Support: Nil

Conflict of Interest: None Declared

How to cite this URL: Chandra Shekhar Pandey et al: A Review of Vishaghna Dravyas useful in Tobacco De-addiction. International Ayurvedic Medical Journal {online} 2022 {cited July 2022} Available from: http://www.iamj.in/posts/images/upload/1929_1934.pdf