

A Review on *Laaksha Haridradi Dhupa*

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ABSTRACT

Air pollution is a critical environmental and health issue caused by harmful substances in the atmosphere, including gases, particulate matter, and biological molecules. It adversely affects human health, damages ecosystems, and contributes to climate change. Both natural processes and human activities, such as industrial emissions and deforestation, contribute to air pollution. Ancient Ayurvedic texts also discuss the impact of air pollution and its consequences on human health and society. *Acharya Charaka* in the *Janapadodhwamsa* chapter of the *Charaka Samhita*, elaborates on how environmental imbalances, including air pollution, can lead to widespread diseases and societal collapse. He emphasized that impure air mixed with toxins and pollutants can cause severe respiratory disorders, epidemics, and disturbances in the body's natural balance. Similarly, *Acharya Sushruta*, explains about *Vishayukta Anila* (toxic air) and highlighted the harmful effects of polluted air on human health, mentioning symptoms such as respiratory distress, Cough, headache, catarrh and severe eye diseases. To counteract these effects of polluted air, *Sushruta* also described the use of *Laaksha Haridradi Dhupa*. *Laaksha haridradi dhupa* is a polyherbal formulation. It has 11 ingredients, *Laaksha*, *Haridra*, *Ativisha*, *Abhaya*, *Abda*, *Harenuka*, *Ela*, *Dala*, *Vakra*, *Kushta*, *Priyangu*. *Acharya Sushruta* in *Kalpasthana* elaborately explains about using “*laaksha haridradi dhupa*” to detoxify the air by the process of *Dhupana*.

Keywords: *Laaksha haridradi dhupa*, *Dhupana*, Fumigation

INTRODUCTION

Air pollution, defined as the presence of harmful substances in the atmosphere, poses a significant threat to human health, biodiversity, and the built environment. Pollutants such as ammonia, sulfur dioxide, nitrogen oxides, carbon monoxide, methane, and particulate matter contribute to respiratory diseases, climate change, and environmental degradation. Human activities, including industrialization, vehicular emissions, and deforestation, have exacerbated air pollution, necessitating global efforts to resolve its impact. While modern science emphasizes technological and policy driven solutions such as air quality regulations, renewable energy adoption, and pollution control devices. Ayurveda extensively documented the effects of air pollution and developed preventive strategies. *Laaksha Haridradi Dhoopa* is an Ayurvedic fumigation therapy traditionally used to combat the harmful effects of air pollution and airborne diseases. *Laaksha Haridradi Dhoopa* offer a natural and holistic approach to air purification. This

dhupa consists of *Laaksha*, *Haridra*, *Ativisha*, *Haritaki*, *Musta*, *Harenuka*, *Ela*, *Patra*, *Kushta* and *Priyangu*. These ingredients are known for their antimicrobial, anti-inflammatory, and air-cleansing properties. When burned as fumigation, this *dhoopa* helps to sterilize the air, reducing microbial load, neutralizing harmful airborne toxins, and preventing respiratory disorders caused by polluted air. It is especially effective in managing symptoms like cough, rhinitis, sinusitis, headaches, and eye irritation all of which are commonly triggered or worsened by air pollution. In Ayurvedic practice, it is also used to prevent infections during seasonal changes or epidemic outbreaks. By using *Laaksha Haridradi Dhoopa* not only benefits from respiratory relief but also promotes a cleaner, healthier indoor environment through natural means, without the side effects of chemical air fresheners or purifiers.

MATERIALS AND METHODS

The study being a literary review, the sources of data is collected from all Ayurveda textbooks and also

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from the contemporary textbooks, relevant Journals **DRUG REVIEW** and websites.

Table 1: Ingredients of Laaksha Haridradi Dhupa

Sl. No	Sanskrit Name	Latin Name	Family	Part Used	Quantity
1.	Laksha	<i>Lacifera lacca</i> Kerr.	Lacciferidae	Niryasa	1 Part
2.	Haridra	<i>Curcumalonga</i> Linn.	Zingiberaceae	Kanda	1 Part
3.	Ativisha	<i>Aconitum heterophyllum</i> Wall.	Ranunculaceae	Mula	1 Part
4.	Abhaya	<i>Terminalia chebula</i> Retz.	Combretaceae	Phala majja	1 Part
5.	Abda	<i>Cyprus rotundus</i> Linn.	Cyperaceae	Mula	1 Part
6.	Harenuka	<i>Vitex agnus</i> Castus Linn.	Verbenaceae	Beeja	1 Part
7.	Ela	<i>Elettaria cardomomum</i> Maton.	Zingiberaceae	Beeja	1 Part
8.	Dala	<i>Cinnamomumtamala</i> Nees.	Lauraceae	Patra	1 Part
9.	Vakra	<i>Valeriana wallichii</i> DC.	Valerianaceae	Mula	1 Part
10.	Kushta	<i>Saussurea lappa</i> B.Clarke.	Astraceae	Mula	1 Part
11.	Priyangu	<i>Callicarpa macrophylla</i> Vahl.	Verbenaceae	Phala	1 Part

Table 2: Pharmacological properties of ingredients of Laaksha Haridradi Dhupa

Sl No	Sanskrit Name	Rasa	Guna	Veerya	Vipaka
1.	Laksha ^[3]	Tikta, Kashaya, Madhura	Laghu, Snigdha	Sheeta	Katu
2.	Haridra ^[4]	Tikta, Katu	Ruksha, Laghu	Ushna	Katu
3.	Ativisha ^[5]	Tikta, Katu	Laghu, Ruksha	Ushna	Katu
4.	Abhaya ^[6]	All Rasas except Lavana	Laghu, Ruksha	Ushna	Madhura
5.	Abda ^[7]	Tikta, Katu, Kashaya	Laghu, Ruksha	Sheeta	Katu
6.	Harenuka ^[8]	Tikta, Katu, Kashaya	Laghu, Ruksha	Ushna	Katu
7.	Ela ^[9]	Katu, Madhura	Laghu.	Sheeta	Madhura
8.	Dala ^[10]	Katu, Madhura	Tikshna, Laghu,	Ushna	Katu
9.	Vakra ^[11]	Tikta, Kashaya, Katu	Laghu, Snigdha	Ushna	Katu
10.	Kushta ^[12]	Katu, Tikta	Laghu, Ruksha	Ushna	Katu
11.	Priyangu ^[13]	Tikta, Kashaya	Ruksha	Sheeta	Katu

REVIEW OF INDIVIDUAL DRUG

Laksha (<i>Lacifera lacca</i> Kerr.)	<i>Kapha- Pitta shamaka</i> (pacifies pitta and kapha dosha), <i>Kushtagna</i> . Antiseptic. ^[14] <i>Artinuth, Balya, Bhutanashini, Krimighna, Raktadoshahara, Twakdosahara, Varnya, Vishaprashamani, Vranaropana.</i> ^[15]
Haridra (<i>Curcumalonga</i> Linn.)	<i>Vishaghna, krimighna, shothahara, varnya, raktadoshahara, pitta rechaka, pitta shamaka, vrana shodhana, vrana ropana, lekhana</i> (scarring), <i>vednasthapana, kapha vata hara</i> ^[16] . It is one of the basic constituent of cosmetic products due to its antimelanogenic, anti-oxidative and free radical scavenging profile added with anti-inflammatory and anti-tumor activity and is also used as a nutraceutical product in some disease like diabetes, skin allergy or hepatic disorder etc ^[17]
Ativisha (<i>Aconitum heterophyllum</i> Wall.)	<i>Vishagna, kapha-pittahara</i> (reduces kapha and pitta doshas), <i>dipana</i> (increases digestive fire), <i>pachana</i> (digests undigested material) <i>grahi</i> (prevents water loss from the body), <i>shotahara</i> (anti-inflammatory), <i>vishaghna</i> (antipoisonous), <i>krimihara</i> (anthelmintic), <i>arshoghna</i> (antihemorrhoid), <i>jwarahara</i> (antipyretic), <i>kasahara</i> (antitussive) and <i>atisaraghna</i> (antidiarrhoeal) ^[18] . In the classical Ayurvedic text <i>Charaka Samhita</i> , <i>Ativisha</i> is listed in the following categories: <i>Tikta skandha</i> (bitter tasting drugs), <i>lekhaneeya</i> (has scraping action on tissues and kapha), <i>arshoghna</i> (treating hemorrhoids).

Haritaki (<i>Terminalia chebula</i> Retz)	<i>Anulomana</i> (causes downwards movements), <i>rasayana</i> (rejuvenative), <i>hrudaya</i> , <i>indriya prasadana</i> (clarity to senses), <i>medhya</i> (nootropics), <i>shothahara</i> , <i>vednasthapana</i> , <i>rechaka</i> (laxative), <i>krimighna</i> , <i>vatrakta</i> , <i>mootrala</i> (diuretic), <i>kasa</i> , <i>shwasa</i> , <i>pliharoga</i> , <i>vishamjvara</i> , <i>tridoshaghna</i> (Predominantly <i>vatashamaka</i>). ^[19] <i>T. chebula</i> possesses antibacterial, antifungal, antiviral, antidiabetic, antimutagenic, antioxidant, antiulcer and wound healing properties. It also prevents cardiac damage and is used for the treatment of kidney disease. It is a mild, safe and effective laxative in traditional medicine. ^[20]
Musta (<i>Cyprus rotundus</i> Linn.)	<i>Vishagna</i> , <i>Lekhana</i> , <i>Kapha – Pitta shamaka</i> , <i>lekhaneeya</i> (scraping action on body fat and <i>kapha</i>), <i>trishnanigrahana</i> (alleviating morbid thirst), <i>kandughna</i> (reducing itch) and <i>stanya shodhana</i> (clearing the problems of breast/breast milk) ^[21]
Harenuka (<i>Vitex agnus</i>)	Anti-bacterial, Anti-microbial, Anti-filarial, <i>Krimigna</i> ^[22]
Ela (<i>Elettaria cardomomum</i> Maton.)	<i>Tridosha shamaka</i> , <i>Sugandhi</i> , <i>Hrdya</i> . Anti-microbial. ^[23]
Patra (<i>Cinnamomum tamala</i> Nees)	<i>Kapha – Vata shamaka</i> , <i>Deepana</i> , <i>Ruchya</i> , Anti-bacterial, Anti-fungal, Anti-microbial, Anti-viral. ^[24]
Tagara (<i>Valeriana wallichii</i> DC)	<i>Tridosha hara</i> , <i>Kapha – Vata shamaka</i> , <i>Vishagna</i> , Antibiotic, Anti-amoebic, Anti-bacterial. <i>Vishaghna</i> , <i>vedna sthapaka</i> , <i>vranaropaka</i> , <i>jvaraghna</i> (antipyretic), <i>Bootaghna</i> , <i>madahara</i> (stimulant), <i>shiro roga</i> (disease of head), <i>apasmara</i> (epilepsy), <i>kapha vata hara</i> . ^[25] The sedative effect of the plant extract was confirmed by a significant reduction in locomotor activity. ^[26]
Kushta (<i>Saussurea lappa</i> .B.Clarke)	<i>Vata-Kapha shamaka</i> , <i>vrishya</i> , <i>varnya</i> , <i>deepana</i> , Insecticidal, Anti-bacterial, Antiseptic. ^[27]
Priyangu (<i>Callicarpa macrophylla</i> Vahl.)	<i>kapha-pitta hara</i> , <i>vishagna</i> ^[28]

DISCUSSION:

Ayurvedic fumigation, a method of drug delivery through inhalation, offers several advantages, including easier administration, enhanced bioavailability, and a strong potential to cross the blood-brain barrier. *Dhupana* formulations are typically composed of a synergistic blend of medicinal ingredients that amplify the effectiveness of the primary antimicrobial agent. When burned, the chemical constituents of these medicinal substances transform into their oxide forms, converting inactive solids into active gaseous compounds. These oxides disperse into the air, effectively purifying it by eliminating impurities. The ingredients in *Laaksha Haridradi Dhupa* possess potent antimicrobial, insecticidal, effects, while *Haridra* exhibits *Krimighna* and *Vishaghna* properties. *Ativisha* is both *Krimihara* and *Vishaghna*, making it effective against *krimi*. and detoxifying properties. *Laaksha* is known for its *Krimighna* and *Vishaprashamani*. *Haritaki* has

Krimighna, antibacterial, and antifungal benefits. *Musta* acts as a *Vishaghna* and *Kandughna*, whereas *Harenuka* is recognized for its *Krimighna* and anti filarial properties. *Ela* serves as an antimicrobial, *Patra* has antibacterial and antifungal properties. *Tagara* is *Vishaghna* and anti-amoebic, *Kushta* has insecticidal properties, and *Priyangu* is a known *Vishaghna* agent. Most of the ingredients in *Laaksha Haridradi Dhupa* exhibit *Vishaghna*, *Krimighna*, and *Kushtaghna* properties, making them highly effective in purifying the environment and promoting overall health.

CONCLUSION:

Ayurvedic fumigation, or *Dhupana*, serves as an effective method of air purification. *Laaksha Haridradi Dhupa* results in the transformation of their chemical constituents into active gaseous forms, which disperse into the air, effectively eliminating impurities and harmful microorganisms. The ingredients used in this formulation exhibit potent

antimicrobial, insecticidal, and detoxifying properties. *Laaksha, Haridra, Ativisha, Haritaki, Musta, and Kushta*, possess *Vishaghna, Krimighna* and *Kushtaghna* properties, contributing to overall environmental and human well-being. By integrating traditional knowledge with modern solutions, we can develop a holistic approach to tackling air pollution for a healthier future.

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