

Guggulu -Dhoopana Dravya- An Ancient Ayurvedic approach to disinfection**1. Dr.Dinesh R.Bahirwad, MD Ayurved**

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Introduction:

Ayurveda has given much importance for preventive medicine and it has described numerous modes for decontamination purpose. Fumigation (Dhoopana) with various drugs is one such method which is harmless, natural and cost effective. Dhoopana is a fundamental part of *Rakshavidhi*, which guards against microbes. Dhoopana is an inseparable part of therapeutics in this system. Dhoopana is one of the measures mentioned for the maintenance of internal and external environment of *Purusha*. After COVID-19 pandemic is a specific type of nosocomial infection which is caused due to Corona Virus & it seems to be accompanying with serious or highly infectious. Transmission of this virus becomes favourable due to poor socioeconomic, crowded and unhygienic conditions. This viral disease is affecting a very bad impact on the medical profession as well as global economy. We have to focus on over preventative aspect of such disease.

Concept of microbiology are exclusively described by our ancient *Acharyas* as Bhuta, Raksha, Jantu, Krumi, Graha etc. which can be compared with various infectious agents e.g., Viruses in contemporary view. Dhoopana is one among various traditional technique of sterilization like water purification, *Homa*, *Yagna* in Ayurveda. Proper isolation of infected individuals becomes often

difficult. By considering the recognition of vital role of various methods of disinfection, fumigation and

sanitation in prevention of corona virus outbreak; high level sterilization or disinfection with certain disinfectant or antiseptic agents becomes necessary to control the spread of this infection (1)

Materials and methods:

Brihatrayi (Charaka Samhita, Sushruta Samhita, Astanga Samhita and Astanga Hridaya) with their commentaries were screened to assemble references of Dhoopana. The classification, ingredients and references were tabulated. The treasured classics of Brihatrayi have given Dhoopana formulations comprising of minerals, herbs, poisons and animal products with the view of reaping benefits from these formulations by discarding the microbial infection.

- Acharya Charaka has classified Dhoopana according to their pharmacokinetic possessions in wound management. In Vrana Chikitsa, two types of Dhoopana have been stated as Vrana Kathinyakara Dhoopana & Vrana Mridutakaraka Dhoopana. (2)
- Astanga Sangraha has also similarly mentioned about types of Dhoopana. (3)
- Fragrant Dravyas like Agar and Sara like Chandana, Vijaysara have been included in the Kathinyakara type. The second type is Vrana Mridutakaraka Dhoopana like Ghee, Vasa & Majja. Benefits of Dhoopana include soothing vrana; creating germ free environment and alleviating pain, discharge,

odour and micro-organisms. Fumigation creates an aseptic environment, kills microbes and thus, prevents infection. (4)

Plants belonging to Kusthahara, Krimighna, Kandughna & VranaharaGana have mostly been used for their anti-microbial properties.

Importance of Guggulu in Indian traditional medicine:

Guggul is an oleo-gum resin obtained from the bark of *Commiphora wightii* and belongs to the family Burseraceae. It is obtained as an exudate from the tapping of branches and stems of the guggul tree. It is found in dry areas of India, Pakistan, and Bangladesh. In India, it is found in Gujarat, Assam, Rajasthan, Karnataka, and Madhya Pradesh. (5)

It is the recognized fact that the earliest mention of the medicinal uses of plants is noticed in the oldest repository of human knowledge, i. e. "Rig Veda". In vedic period, Guggulu was used as incense and hence, the action of this drug has been explained that wherever there is smell of this drug, the people will not be afflicted with any disease. A similarity has been drawn between the vanishing diseases on account of the use of this drug and the fleeing wild animals and horses. In addition, it has also been mentioned that the fragrance of Guggulu does not even permit the curses to operate. It is to be understood that the effects of this drug are expected on both the body and mind.

Guggulu has been used in a number of Dhoopana formulations. The volatile oil of Guggulu was found to be highly effective against *Rhizopertha dominica* which suggested its role as a fumigant. An active compound, 5(1-methyl,1-aminoethyl)-5-methyl-2-octanone, of the methanolic extract of Guggulu gum possessed significant antibacterial activity against gram-



positive bacteria and moderate activity against gram-negative bacteria.(6-8)

Figure 01:(*Commiphora wightii*)- Guggulu

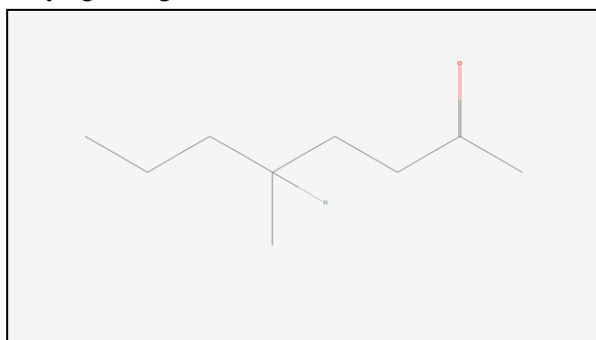
Figure 02:5(1-methyl,1-aminoethyl)-5-methyl-2-octanone

Method of preparation:

Kashayap Samhita explains that dhoopa substance should be collected by vaidya himself with utmost purity and sincerity (Sharma, 1992). There substance should be collected from Agneya (south east) or uttar (north) direction on pushya constellation. They are collected, dried made into coarse powder Figure 1: Guggulu Figure 2: Vacha and put on fire to produce smoke or stored at safe place and used as per requirement. (9)

Observations:

There are many preventive methods, mentioned in Ayurveda like Sadvrutta (Ideal regimen), Dincharya and ritucharya (seasonal regimen), homahavana, rasayana (Rejuvenation) and dhupana. Out of all above, Dhupana should be specially carried out by health worker. As per Dhupakalpadhaya it is observed that by fumigation, physician can cure all the diseases and gets success in treatment of diseases. To ensure the zero contamination during the procedure and drug preparation, Ayurvedic pharmacy, Aaturagara, panchakarma procedure room, Vranitagara, Kumaragar should be fumigated time to time. Dhoopana has been originated by Fire God Agni, who has taught sages unique technique to get rid of Rakshasa (Micro-organism) by fumigation.



Conclusions:

Dhoopana Chikitsa is existing since time immemorial. Its root lies in Vedas and is widely used in Ayurveda not only for disinfecting and purifying but also as a remedy to treat various ailments and to prevent the diseases. In this way the dhoopana karma according to Ayurveda can be implemented in order to prevent the air borne infection. There by using the dhoopan karma we can fight against the pandemic covid -19.

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