ABSTRACT

Ayurveda is an Indian system of traditional medicine that describes unique methodologies and drug formulations for better health care. The term health not only implies to physically being healthy but also includes mental and social well-being. The well-being describes the relation between environments, occupational, spiritual etc. These different dimensions of health will interact together to determine the quality of life. Dhoopana is one among the different treatment measures which mentioned in Ayurveda in curative as well as preventive measures. This article highlights about various references of Dhoopana procedure mentioned in classic texts.

KEYWORDS: Dhoopana, Fumigation, Ayurveda, Preventive Measures.
Dhoopana is a method by which drugs of herbal, herbo-mineral or animal origin are used for fumigation. Dhoopana utilizes only natural substances and therefore is absolutely safe for environment as well as human beings.

Prevalence in Ayurveda

Dhoopana is the part of therapeutics in Ayurvedic system. Dhoopana is one of the measures mentioned for the maintenance of internal and external environment. Fumigation is one among such regimen said in Ayurveda during rainy season strive to attain either anti infectious state or increase immunity or both.[2]

“The word krimi has broader meaning in Ayurveda; it includes all pathogenic and non-pathogenic organisms covering wide range of infection and infestation. They are explained under the title of Oupasargarogas, which spread through different routes. To get prevention from krimi (microbes), Rakshognavidhi is indicated in our classics.[3]”

- **Dhoopana karma** is a process, which mentioned from Vedic period in the form of Traditional rituals of doing Homa-Yagnya as an important technique of disinfection of house & environment. Fumigation with camphor or frankincense or some other medicinal plants is an integral part of all Pujas in India.
- **Dhoopana** mentioned for its antimicrobial and growth promoting activities for the healthy production of plants in Vriksh Ayurveda.[4]
- **Dhoopana** is an integral part of Rakshavidhi, which ensures protection against microbes.
- Fumigation tents for the delivery of mercury and arsenic used well into the 1800’s as a treatment for syphilis (Hayden 2003).
- **According to India: History, Religion, Vision and Contribution to the World, Volume1 by Alexander P. Varghese:** Fumigation acts as a powerful weapon not only in agriculture but also for atmospheric and environmental cleanliness both inside and outside the houses. During periods of epidemics, fumigation is the first aid used by all classes of people as a precautionary germicide. During periods of epidemics, fumigation is the first aid used by all classes of people as a precautionary germicide.

Origin of Dhoopana

When the born children of sages were tortured by Raksasas, then all great sages possessing oblation, recitation and penance, went to the shelter of fire, then satisfied Agni said that accept and use these fumigations, there will be no fear from Raksasas, Bhutas and Pisacas.
The wet nurse should use these for born, growing and diseased child. Then sages knowing Kashyapa, the bestower of prosperity upon universe, as well-wisher of the world, appointed him for collection of fumigation from God Agni.\[^5\]

**Types of Dhoopana\[^6\]**

- Kashyapa has also mentioned about types of Dhoopana:
  1. Dhoopa (Fumigation).
  2. Anudhoopa (Subsequent Fumigation).

- Based on Origin, fumigations classified as:
  1. Jangama and.
  2. Sthavara.

**Dhoopana formulations**

Various formulations of Dhoopana mentioned in Charaka Samhitha, Sushruta Samhita, Astanga Hrdaya. Kashyapa Samhitha, has dedicated a complete chapter for Dhoopana Karma, different formulations, types and indication of Dhoopana Yogas.\[^6\]

In Charaka Samhitha, Dhoopana procedure explained in different contexts of disinfecting clothes, bed, Sheeta Jwara, Vishama Jwara, Apasmara, Arshas, for removal of all types of toxins from the body, to wipe out snakes, mice, spiders and insects.\[^7\]

Susruta Samhita has highlighted the Dhoopana procedure in post-operative procedure, fumigation of Vranagara twice a day for ten days, Vrana Dhoopana, expulsion of placenta, Garbha Sang, air purification, wound of Vataja Dosha, pain and discharge, ear diseases, Karma Daugandhya, Skanda Graha, Skandapasmara, Graha, Unmada etc.\[^7\] Susruta calls microbes as Bhoota. Several acquired diseases in Ayurveda are linked to Bhoota. Dhoopana or fumigation is a proven anti-microbial process. Fumigation is one among such regimen said in Ayurveda during rainy season strive to attain either anti infectious state or increase immunity or both.\[^2\]

In Astanga Sangraha, Dhoopana procedure mentioned for the purpose of destroying poison, Alsaka, postoperative procedure, Apara Sang, Vishaghna destroys effect of poison in houses, dress, bed and chairs, Graha Chikitsa etc.\[^7\]
In *Astanga Hrdaya*, *Dhoopana Chikitsa* explained for indications of *Garbhasan ganashaka Yoga*, *Vishama Jwara*, *Arsha*, for child’s bed sheet, pillow, *Bala Graha*, *Skanda Graha*, *Unmada*, *Pishacha*, *Rakshasa*, *Apasmara* etc.\(^7\)

**Dhoopana Probable Mode of Action**

Among all preventive measures said in *Ayurveda* texts *Dhoopana* has important role. Fumigation is a process of gaseous sterilization which completely fills the area with gaseous fumigants to suffocate the microbes and pests within air, surface of wall or floor. Drugs which are used for *Dhoopana* have property of disinfectants, anti-microbial, anti-septic properties. *Dhoopana* has *Sroto-Shodaka, Kaphaghna* action. Most of the formulations have used for disinfection and removal of *Vishas*. The ingredients of the formulations incorporated in such a way to induce antimicrobial properties of the raw materials that help in eliminating disease vectors.

For fumigation of *Vranagara*, *Dhoopana* advised to given twice a day for 10 consecutive days to assure and maintain a sterile environment in operation theatre\(^7\)

*Dhoopana* procedure applied in many of the branches of *Ayurveda* like *Stree Roga Prasuti Tantra Bala Roga Shalakya Shalya Agada Tantra*, *Swasthavritta Manasa Roga*, *Bhuta Chikitsa* etc.

*Ayurvedic Acharyas* explained different types of *Dhoopana Kalpanas* aimed to combat diseases, prevention and purifying environment. *Dhoopana Dravyas* mentioned in *Samhithas* have a lot of potential to manage different diseases and for sterilization. *Brihatrayi* explained variety of *Dhoopana Kalpanas* aimed at deriving health, combating diseases and even purifying environment. These formulations have been used widely since long. The *Dhoopana Dravyas* mentioned in the *Brihatrayi* have a lot of potential to manage different diseases and for sterilizing in an economical and eco-friendly way without developing any drug-resistant microorganisms.

**Dhoopana Dravyas**

1. The following are some of *Dhoopana Dravyas*:
3. These drugs mostly have anti-microbial properties.
4. Animal origin: Hair, nails, horns etc.
5. Mineral origin: Sulphur compounds Haritala, Manashila.

**Preservation of Dhoopana Dravyas**

*Dhoopana* made of plant drugs when kept in air tight containers can be used for two years. The prepared *Dhoopana* Drugs should not lose their original colour and smell.\[^{8}\]

**Dhoopana Uses**

*Dhoopas* are widely used in *Ayurvedic* treatments for various reasons:

- For sanitization and purification of premises.
- For sterilizing the pots in which medicines are to be stored.
- For disinfecting the Kirimaraghara.
- For repelling the insects, poisonous animals etc.
- For facilitating proper development of children.
- *Dhoopana* has broad spectrum of psychological and medical significance.
- Fumigation acts as germicide, pesticide, insecticide etc.
- Healing Vrana.
- Yoni vyapada.
- Karna Rogas.
- Disinfecting Bhesajaghara, Vranaghara.
- Sterilizing Asavas and Aristas.
- For treating diseases such as Balagraha (infectious pediatric diseases), skin diseases, cold, fever due to Vatadosha, epilepsy, etc.

**NEED FOR STUDY**

Chemical liquids and vapors are the most commonly used decontaminant fumigants; several are available and each has their advantage and disadvantages. Formaldehyde has been used as a gaseous disinfectant for over 100 years. According to WHO “Formaldehyde is known for human carcinogen and it causes nasopharyngeal cancer.”\[^{9}\]

*Dhoopana* procedure helps in order to reduce the effect of microbial toxins in air and pollutants in air by using many herbal drugs which have pharmacological actions like anti-microbial, anti-oxidant, immunomodulator etc.
RESEARCH WORK

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FUTURE CHALLENGES

- Standardization of fumigants.
- Analyzing chemical components.
- Developing as a drug delivery system.
- Toxicity studies.

CONCLUSION

Ayurveda affirms that health is the balanced and dynamic integration between environment, body, mind and spirit. Slight disturbance in these factors leads to disease. Among all preventive measures said in Ayurveda texts Dhooopana has important role. Dhooopana is the part of therapeutics in Ayurvedic system. Dhooopana is one of the measures mentioned for the maintenance of internal and external environment. Dhooopana today can play a major role as a disinfectant as it is eco-friendly and relatively cheaper.

REFERENCES