

**DHOOPAN KARMA: AN AYURVEDA METHOD OF STERILIZATION****Dr. Ashwini Mukesh Vaidya\***

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**\*Corresponding Author****Dr. Ashwini Mukesh****Vaidya**PG Scholar (Shalya Tantra -  
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Surgical and para surgical process requires sterilization. This helps in controlling the growth of organisms causing infections. Ayurvedic Dhoopan Karma is the process of Sterilization in Vranitagar, on Vrana. There are different drugs which are used for dhoopan karma.

**KEYWORDS:** Dhoopan Karma, Sterilization, Vranitagar, Rakshoghna dravya.

**INTRODUCTION**

Diseases are treated with internal/ oral medicines or by surgical procedures. In the field of surgery, it involves the invasive procedure. In which instruments are get in contact with body tissue. Which leads to entering of pathogens in the body. These pathogens speed up their growth in presence of favorable condition, further causing infection in the body or in the wound. Hence to control the infection, pathogens should be destroyed completely. This can be achieve with the help of Sterilization Method.

The knowledge of sterilization is mentioned since the ayurvedic era and as well as in the modern medicine. Sterilization means to destruct the organisms by removing or killing. But it has been classified in different terms according to work as Sterilization, Disinfection, Anti – sepsis.

**Definition**

**Sterilization:** The process of freeing an article or a surface or a medium of all micro-organisms both in vegetative or spore states by removing or killing them.

**Disinfection:** The destruction of all pathogenic organisms capable of causing infection, but it does not affect the spore state of organisms.

**Antisepsis:** The process of destruction of disease – causing micro- organisms to prevent infection in patients' body surface. The process may be either bactericidal or bacteriostatic.

### Importance of Sterilization

Infection is nothing but the presence / growth of any organism. Hence to remove / kill the organisms sterilization/ antiseptic methods are used on instrument, in operation theaters and on wounds.

In the development of medical science, the methods of sterilization get advanced step by step, in operation theaters it was done by simply using soaps and detergents, they further get advanced by using surface disinfectants, and now by Fumigation method.

Like wise in early stages instruments were reused just by heating them on flames, then by boiling them in water, then by using soaps and surface detergents, then by autoclaving and now days by radiations.

For dealing with wound previously, they kept the wound clean and free from germs simply by using decoctions and sprinkle the medicinal drug powder, application of medicated oil or ghee on the wound. For killing the micro-organisms disinfection of wound was done with the help of Vrana dhoopan. Now a days anti-septic, anti-bacterial solutions are locally applied.

### Ayurvedic literature

Drugs used for Dhoopan Karma.

No	Dravya	Latin Name	Rasa	Virya	Vipaka	Karma
1	Ghrut	-----	Madhur	Sheeta	Madhur	Rakshoghna
2	Sarshap	Brassica Nigra	Katu	Ushna	Katu	Rakshohara & Krimighna
3	Vacha	Acorus Calamus	Katu, Tikta	Ushna	Katu	Bhuta- jantvahara
4	Guggul	Commiphora Mukul	Katu, Tikta, Kashaya	Ushna	Katu	Krumijayeta
5	Nimba	Azadirachta Indica	Katu, Tikta, Kashaya	Sheeta	Katu	Krumipraneta
6	Agaru	Aquilaria Agallocha	Katu, Tikta,	Ushna	Katu	Kruminasha k
7	Sarjaras	Resina of shorea robusta Gaerten	Tikta, Kashaya	Sheeta	Katu	Grahanasha ka
8	Lavana	Sodium Chloridum	Lavana	Sheeta	Madhur	Sushma

### Methods

In ancient era, there were no any advanced tool for detection of micro- organisms, hence rather than defining them in different nomenclature like Bacteria, Virus, Fungi, etc they termed it as Bhootabadha / Grahabadha.

The term Sterilization can also be translated in Ayurvedic context as Nirjantukikarana / Rakshakarma.

In classics of Ayurveda, Acharya has described the Patients Room (Vranitagaar) as,

प्रशस्तवास्तुनन गृहे शुचावातनवर्जिते।  
ननवाते न च रोगाः स्तुः शारीरागन्तुमानसा॥

(सु. सू. १९/४)

The place/ ward where patient is to be admitted should be specious and fresh which will lead to good health and healthy mind state of patient.

सर्षपारष्टनत्राभ्वां सर्षिषा लवणेन च।  
द्रवरन्हाः कार्देदूनां दशरात्रमतर्न्िताः॥

(सु. सू. १९/२८)

The Mixture of Sarshapa, Sarpisha and Lavana is to be Fumigated in the Patient's room twice a day for ten days, it works as disinfectants.

For the treatment of wound Shashti Upakrama, a classical methods of wound healing described in Su. Chi. 1/8 has mentioned following ways to keep the wound clean / non-infected. And for accelerate the healing process.

- **Vrana Dhoopana: (Fumigation)**

वातात्मकानुग्रुजान् सास्त्रावानपि च व्रणान्।  
सक्षौमयवसर्पिर्भिर्धूपनाङ्गैश्च धूपयेत्॥

(सु. चि. १/८०)

The pain, pus discharge at the sight of wound should get dis-infected by letting the Fumes of Guggulu, Ghrita, Yava. This will lead germ free wound healing with acceleration.

- **How to Give Vrana Dhoopana**

व्रणधूमं शरावसंपूटोपनीतेन् नेत्रेण व्रणमानयेत्, धूमपानव्देदनोपशमो  
व्रणवैशद्यमास्त्रावोपशमच्च भवति॥

(सु. चि. ४०/१९)

According to Samhita, Vrana Dhoopana gives in a manner that saturated steam produced by Ayurvedic drugs condensed and transfer to the wound in Sharava samputa (Closed container made by soil)

- **Krumighna**

माक्षिका व्रणमागत्य निःक्षिपन्ति यदा कृमीन्।  
श्वयथुर्भक्षिते तैस्तु जायते भृशदारुणः॥  
तीव्र रुजो विचित्राश्च रक्तास्त्रावश्च जायते।  
सुरसादिर्हितस्तत्र धावने पूरणे तथा॥

(सु. चि. १/११९-१२०)

When the wound is infected with worms or insects it should be cleaned and dis-infected by giving Dhavana (wash) of Ayurvedic formulation (Kwath Kalpana) of Surasaadi gana (Su. Su. 38/18-19)

- **Raksha Vidhanam**

घृतां ससद्वाधिको हहङ्गु देवननमालिम्ताः।  
सन्तित्वर्भिः सुसांघाटी धूनो रोघ्न उच्यते॥

(का. सां. कल्न. धून कल्नोधात्)

Fumigation of following products as Ghrita, Hingu, Akshata, Skin of Reptile (Snake) and clothes of old Bhuddhist are said to be Rakshoghna.

### Modern methods of Sterilization

There are many drugs/ solutions that sterilize the OT and IPD. Sterilization of Operation Theater and Inter patient Department (IPD) is done by Fumigation method

- Formaline solution and Potassium Permanganate.
- Hydrogen peroxide and silver nitrate
- Fogger machine

These techniques are nothing but the dhoopan karma in modern era.

### Summary

Sterilization has an important role in surgical procedures as well as in hospital environment. For Sterilization dhoopan karma has described in Ayurveda Samhitas which is simple and easy technique.

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