

TOPICAL MEDICATIONS IN AYURVEDA W.S.R TO SNEHA KALPANA AND
MALAHARA KALPANA- A REVIEW ARTICLE

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ABSTRACT

Ayurvedic dosage forms are very peculiar in relation to its pharmaceutics and therapeutics. The beginning of medicine and pharmacy are so closely interwoven with the fact that both are inseparable entities. The Ayurvedic medicines utilise a wide range of materia medica. They are used for indication in different conditions of health and disease in order to restore the state of balance. In Ayurvedic pharmaceutics, number of preparations are described which is used as different dosage form, out of which topical medications constitute a vast portion which make a splendid difference from other medical sciences. Among all topical medications in Ayurveda Sneha kalpana (Medicated fatty preparations) and Malahara kalpana (semisolid preparations) are very peculiar in relation to its pharmaceutics and therapeutics which is discussed here.

KEYWORDS: Ayurvedic dosage forms, topical medications in Ayurveda, Sneha kalpana, Malahara kalpana**INTRODUCTION**

In current era, whole world is looking upon different system of medicine with a hope of getting more better and adjuvant remedies which can support alone or along any system of medicine. The available treatment in modern medical science has success in providing instant relief like in cases of skin disorders, joint diseases. Patients seek those therapies which are cost-effective as well as curative too. Ayurveda system of medicine is proving its importance in the present time very efficiently. If we see in the history of Ayurveda, it can be said undoubtedly that every remedy was present in it. The pharmaceutical dosage forms are very elaborately explained in Ayurveda in branch Bhaishajya kalpana (Ayurveda pharmaceutics). In recent years there has been growing awareness about Ayurvedic medicines throughout the world.

The skin serves the vital function of providing a barrier between the hostile external environment and the host. Ayurveda has provided a number of preparations for various diseases with little or no side effects. Innumerable topical medications are also furnished in the Ayurvedic literature which are continuously getting used in different conditions of disease like skin diseases, joint's pain etc.

Use of oils as external medication is in vogue since the Vedic ages and is still popular due to the immediate soothing and relaxing properties of oils on the skin and the subcutaneous tissues. Ayurvedic medicated oils are very popular due to their special processing procedure

that helps in extracting the active ingredients of the drugs in which it is processed. Not only herbal but mineral drugs are also used in processing of oils to make it more potent.

Malahara Kalpana is not explained in early classics of *Ayurveda*. It is comparatively recent formulation in the field of *Ayurveda*. This formulation came in the existence by virtue of *Unani* medicine. *Malahara* has a property like *snehana* (oelation), cleansing, *ropana* (healing), *lekhana* (scaraping), and *varnya* (beautifying), depending on the drugs used in the preparation. Selection of the base and the ingredient in a *malahara* probably depends on the disease condition in which has to be used.^[1] In the text *Rasatarangini* itself, about nineteen *malahara yogas* are mentioned.

The word topical is derived from the Ancient Greek *topos* (plural: *topoi*), meaning "place" or "location". Topical therapy allows direct delivery of a drug to the site of lesion with minimal risk of systemic side effects.^[2] A topical medication is a medication that is applied to body surfaces such as the skin or mucous membranes to treat ailments via a large range of classes including but not limited to creams, foams, gels, lotions and ointments.^[3] To bypass the first pass metabolism is the main advantage of topical dosage form. Risk factors and inconvenient methods can also be minimized in by application of topical therapy.

Snehha kalpana is one of the commonly prescribed Ayurvedic dosage form in day to day practice. Aim of

this arrangement is mass transfer of the aqueous and lipid-soluble active principles of all treated herbal drugs and material of animal and mineral origin, if any, in accordance of established formulae quoted in authoritative text books of *Ayurveda* which should serve therapeutic objectives as per indications of the classical treatise of *Ayurveda*.^[4] They are prepared in specific proportions by subjecting them to uniform heating pattern and duration to fulfil certain pharmaceutical parameters as per the requirement of the therapeutics.

Malahara kalpana are semisolid dosage form constitute a significant pharmaceutical dosage forms which can be correlated with ointments of modern pharmaceuticals. The semisolid dosage forms are unique to its composition. Formulation development is made on the basis of drug-delivery requirements and the particular need to impart sufficient emolliency. Semisolid applications can adhere to application surface for sufficiently long periods before they can be washed off. This property helps prolong drug delivery at the application site.

Hence two main topical dosage forms by brief survey on literature, which are used extensively are explained here which are Sneha kalpana (medicated oil) and Malahra kalpana (ointment like).

PHARMACEUTICAL ASPECTS OF SNEHA KALPANA (MEDICATED FATTY PREPARATIONS)

Definition

These are the secondary preparations of *Ayurveda* pharmaceuticals where bolus of drugs with different liquid media (decoctions etc.) are mixed with fatty substances (oils/animal fats) in a specific manner and evaporated till removal of moisture. The final product is collected after filtering to recover evidently fat soluble principles of drug.

Table 1-Types of medicated fatty preparations

Bahya snehana(used for external application for massage etc.)	Abhyantara snehan(used for internal application for basti,paan etc)
Snehapaaka kalpana(by heating method)	Sneha dhauta kalpana(by rubbing method)

Basic concepts regarding preparation in brief

Sharangdhar Samhita is considered as most referring book for pharmaceutical details of different dosage forms in *Ayurveda*. Therefore, we are putting down some salient preparatory indications of *Sneha Kalpana* from

Table 3-Kalka proportion

Type of Kalka	Proportion of Kalka
General	1/4 th to the quantity of Sneha (Base oil or ghee) ^[7]
If kalka is prepared with pushpa (flowers)	1/8 th to the quantity of Sneha (Base oil or ghee) ^[8]
If Drava-dravyas (Liquid portion) are Ksheera (milk), Dadhi (Curd), or Takra (Buttermilk), Mansarasa (meat juice)	1/8 th to the quantity of Sneha (Base oil or ghee) ^[9]
If no kalka is mentioned in the formula	Should be prepared with drugs of decoctions or other drugs of drava-dravyas, 1/4 th of sneha ^[10]

Sharangdhar Samhita for optimum understanding of concept. According to *Sharangdhar Samhita*, *Sneha Kalpana* may be defined as "the medicament prepared by using one part of *Kalka dravya* (paste of indicated herbal ingredients), four parts of oil/ghee and sixteen parts of *Drava dravya* (liquid media).^[5]

Table 2-Ingredients of Sneha Kalpana

INGREDIENTS	PROPERTIES
Sneha dravyas(Base fatty material)	Ghrita, taila, vasa, majja are the 4 best types
Kalka dravyas(Paste or bolus of ingredient drugs)	Facilitates easy extraction of essential principles into the lipid media.
Dravadavyas(liquid portion)	Provide the required media and optimum duration needed for proper extraction of fat soluble active principles. This portion evaporated completely till only the sneha is left behind.

Sneha murchana (Specific treatment of oil or ghee)

It is a specific procedure of making sneha dravyas devoid of gandha (bad odour) and aama doshas, ugratva etc before preparing snehakalpana. This procedure is said to improve the colour, appearance, odour and quality of the sneha dravyas. Eradication of gandhadosha in case of taila (oil) and amadosha in case of ghrita (animal fat) is the aim of doing murchana samskara of sneha dravyas, outridden by heating the sneha till evaporation of all its moistures. Earlier classics of *Ayurveda* did not mention it, but found mentioned in *Bhaishajya Ratnavali*.^[6]

Sneha paatra(Vessel): It is preferred to be made of copper, iron, or earthen mud. The vessel that is prepared of copper and coated internally with tin, broad based and wide mouthed, is more suitable for preparation as copper is good conductor of heat and Sneha kalpana involves lot of heating.

As a general rule,
Kalka-1 part
Sneha-4 parts
Drava-dravyas-16 parts

Kalka: It is prepared by fine grinding the drugs with or without water (if taken fresh herbs) or sometimes any liquid to make the bolus of raw drugs.

Kalka plays a vital role in deciding the stage of paaka of Sneha kalpana.

Drava-dravyas

These are liquid components of Sneha paaka. The drava-dravyas can be one or more and vary according to formulation. Commonly used Drava-dravyas are –

- Jala (Water)
- Kashaya (Decoction)
- Swarasa (Herbal juice)
- Ksheera (Milk)
- Dadhi (Curd)
- Takra (Butter milk)
- Kanji/Dhanyamla (Sour fermented preparations)
- Mamsarasa (meat juice)
- If no drava dravyas is mentioned, the decoction of drugs of kalka is used as drava-dravyas.

Preparation of Kwath (Decoctions) for Sneha paaka**Table 4 - According to consistency of kwath dravyas** ^[11]

Type of Kwath dravyas	Proportion of Water
Mridu	4 times reduced to 1/4 th
Madhyama and Kathina	8 times reduced to 1/4 th
Atyanta Kathina	16 times reduced to 1/4 th

Table 5 - According to quantity of Kwath dravyas ^[12]

Quantity of Kwath dravyas	Proportion of Water
Karsha to pala	16 times
Pala to kudav	8 times
Prastha to khari	4 times

Proportion of Drava-dravyas ^[13]

1. General rule- The proportion of drava-dravyas 4 times to that of Sneha,
2. If number of Drava-dravyas are 4 or up to 4 -Each drava-dravya 4 times to that of Sneha.
3. If more than 4 liquids - Each liquid should be equal to that of Sneha

Steps

1. Sneha (previously murchita), taken in broad and wide mouthed vessel and placed over madhyamaagni (mild fire).

2. The drugs of Kalka are made into coarse powder and are ground with little quantity of water into kalka.
3. The Kalka is added to the sneha. Prescribed Drava-dravyas are added to sneha and the contents are stirred well.
4. The process of heating is continued over moderate fire, till whole moisture of liquid portions is evaporated and Sneha alone is left in the vessel.

Duration of Boiling

1. The process should not be completed in one day.^[14]
2. According to Ayurvedic texts, the duration of boiling varies with the type and nature of Drava- dravya.^[15]

Table 6 - Duration of heating

Type of Drava- dravya	Days
Mamsarasa (Meat juice)	1
Vrihidhanya	1
Ksheera (milk)	2
Swarasa (expressed juice)	3
Takra (Butter milk), Kanji, curd etc.	5
Mula, Valli	12

Precautions

1. Ghrita should be preferably old, whereas Taila should be newer one.
2. The process should be carried on madhyamaagni to mandagni at uniform temperature with gentle boiling.
3. The contents should be frequently stirred to prevent sticking and charring of kalka.
4. Proper care should be taken to decide the staging of Sneha paaka.
5. Whenever Saindhav lavana, Kshaara etc. are mentioned, they should be dissolved in

- kashaya and then kalka, sneha should be added.
6. Enough care should be taken to prevent spilling and overflow of contents from vessel.

Test for completion (Sneha siddha lakshana) ^[16]

1. Disappearance of foam in Ghrita kalpana.
2. Appearance of bubbly foam in taila kalpana.
3. Pleasant smell of drug.
4. Varti formation of kalka.
5. Does not produce any crackling sound when placed on fire.

Table 7-Phase of process^[17]

Phase	Characters	Use
Aama	Kalka-soft More watery Pasty	Unfit for therapeutic use.
Mridu	Kalka-Soft and sticky Yields large quantity of oil on pressing Produce crackling sound when placed on fire.	Can be used as internally and externally
Madhyam	Kalka-soft Non-sticky Can be rolled into varti Yields no oil on pressing Produce no crackling sound when placed on fire.	Suitable for Paana, abhyanga, vasti, nasya
Khara	Kalka-hard Rough to touch Does not yield any sneha on pressing	Only for external application
Dagdha	Kalka-hard Rough to touch Sandy in nature Cannot be rolled into varti	Unfit for therapeutic uses

Patra-paaka/Gandha-paaka

This is the process where the finished product of sneha kalpana is imparted with perfumery and fragrance.

Shelf –life of Sneha kalpana^[18]

As most of the Sneha contains long chain of PUFA, which act as preservative, up to 16 months.

MALAHARA KALPANA (Semisolid dosage form)

In Ayurveda, Yogaratnakara adopted the term 'Malahara' from word 'Malaharam' – a unani preparation. This can be compared with Ointments of modern pharmaceuticals. Semisolid applications can adhere to application surface for sufficiently long periods before they can be washed off. This property helps prolong drug delivery at the application site.

Composition

1. Base - Siktha (bees wax), guggulu, sarjarasa, tila-taila, siktha taila, menthol, thiamol shatdhauta ghrita, sahastra dhauta ghrita, gandha viroja etc can be used.

2. The drug (Active ingredients)

Preparation

The homogeneous mixing of the drug with the base is the most important event in malahara preparation.

Basically it is of two types

- **Anagnisiddha method (without heat):** The drug is triturated with base till homogeneous mixture formation without Agni.
- **Agnisiddha method (with heat):** The solid base is melted first and then the drug is added. This method can be adapted when base is in a solid state.

Pharmaceutical benefits of malahara:

- Simple and easy preparation method
- Base of the malahara can be selected as per need and availability.
- Contact time of malharas is more to skin as compared to liquid dosage form.
- It can be easily standardized.
- Easy packaging and transporting as compared to liquid dosage forms.

Role of Vehicle in Malahara kalpana

The main benefit of malahara kalpana is based on choice of its base which should be compatible with the drug and patient. They form a reservoir for the active ingredients; allow local release of suitable amount of the active drug, soothing the skin.

CONCLUSION

All systems of medicine points towards a unique goal which is to prevent the disease, restore the health diminish the suffering. It is also the basic concept of Ayurveda. Topical therapies of Ayurveda are very peculiar in its therapeutic as well as pharmaceutical aspects. Taila and Malahara kalpana of Ayurveda are very effective in many diseased conditions e.g. Skin diseases, Joint's pain, wound healing etc. and these pharmaceutical preparations are practicing very effectively now-a-days. These topical therapies may be effective as single as well as adjuvant therapies. If we will consider its pharmaceutical aspects, which is quite easier and utilises a wide range of Materia medica, these above discussed topical therapies can be experimented in varied diseased conditions with a great skill. These two topical dosage forms of Ayurveda can be suggested as

alternative or adjuvant to other therapies with proper rationality.

REFERENCES

1. www.jahm.in, ISSN-2321-1563.
2. P.N Bennet, M.J Brown, Clinical Pharmacology, Churchill Livingston, Spain, 9th edition, cha 16\ pg 299.
3. Wikipedia.
4. Dhruve K, Chaudhary A. Sneha kalpana- A probable pharmaceutical explanation. Aryvaidyan. 2007; 20: 181-9.
5. Dr.Shailajasrivasta, Sharangdharasamhita, Chaukhamba Orientalia, Varanasi- 2009ed, Madhyama khanda 9/1.
6. Shri Kaviraja Ambikadutt Shastri ,Bhaishajya Ratnavali,Chaukhambha prakashan Varanasi-2013 ed,5/1285-1291.
7. Dr.Shailaja srivastava, Sharangdharasamhita, Chaukhamba Orientalia, Varanasi-2009 Madhyama khanda 9/1.
8. Dr.Shailaja srivasta, Sharangdharasamhita, Chaukhamba Orientalia,Varanasi-2009 Madhyama khanda 9/12.
9. Dr.Shailaja srivasta, Sharangdharasamhita, Chaukhamba Orientalia, Varanasi-2009 Madhyama khanda 9/7.
10. Dr.Shailaja srivasta, Sharangdharasamhita, Chaukhamba Orientalia, Varanasi-2009 Madhyama khanda 9/11.
11. Dr.Shailaja srivasta, Sharangdharasamhita, Chaukhamba Orientalia, Varanasi-2009 Madhyama khanda 9/3.
12. Dr.Shailaja srivasta, Sharangdharasamhita, Chaukhamba Orientalia, Varanasi-2009 Madhyama khanda 9/4-5.
13. Dr.Shailaja srivasta, Sharangdharasamhita, Chaukhamba Orientalia, Varanasi-2009 Madhyama khanda 9/8.
14. Dr.Shailaja srivasta, Sharangdharasamhita, Chaukhamba Orientalia, Varanasi-2009 Madhyama khanda 9/19.
15. Vaidyaka Paribhasha Pradeep 3/26-27.
16. Dr.Shailaja srivasta, Sharangdharasamhita, Chaukhamba Orientalia, Varanasi-2009 Madhyama khanda 9/13-14.
17. Dr.Shailaja srivasta, Sharangdharasamhita, Chaukhamba Orientalia, Varanasi-2009 Madhyama khanda 9/15-17.
18. Dr.Shailaja srivasta, Sharangdharasamhita, Chaukhamba Orientalia, Varanasi-2009 Madhyama khanda 1/52.