

A review on Role of Sneha in Relation to Absorption of Drug

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ABSTRACT

Ayurvedic dosage forms are very exclusive in its pharmaceuticals and therapeutics. Sneha Kalpana is a process where various things like medicinal herbs paste, decoction, dughda, dadhi, mutra or other dravadravyas used for preparing medicated taila and ghrita. Proportion for different kind of kalkadravyas, dravadravyas are mentioned in different kind of samhitas in varied manner and also different type of duration for preparation Sneha. Such Medicated taila and ghrita have great therapeutic importance in many Panchakarma Procedures internally & externally. In this article an attempt has been made to review regarding properties of taila, process of method of preparations of drugs, stages of paka (preparation) and its various therapeutic indications.

Sneha Kalpana is a unique contribution to Ayurvedic science and it ensures the transformation of the active therapeutic properties of the ingredients to the solvents. It is mainly of two types - Ghrita Kalpana and Taila Kalpana. Sneha Kalpana is done in three phases. The first phase consists of Sneha Murchana, followed by second phase of Sneha Paka and finally there is third phase called Paka Siddhi. This process ensures transformation of the active therapeutic properties of the ingredients to the solvents and hence to get fat soluble, water soluble or even the chemical constituents which are soluble in various media. Here we provide a review of the Sneha Kalpana process and its property of absorbing the principles of drug and stores it for longer period without losing its property.

Key Words: Sneha Kalpana, Kalka Dravyas, Sneha Paka

I. INTRODUCTION

The word "Sneha Kalpana" consists of two words 'Sneha' and 'Kalpana', where Sneha means fats or fatty materials and Kalpana stands for pharmaceutical process of medicaments. Sneha Kalpana may be defined as - 'A pharmaceutical process to prepare oleaginous

medicaments from the substances like Kalka, Kwatha and Drava dravyas, in specific proportions by subjecting to a unique heating pattern and duration to fulfill certain pharmaceutical parameters, according to the need of therapeutics'. In other words Sneha Kalpana is a process where the various forms like decoction, paste, milk and perfuming substances are employed for the preparation of oleaginous medicaments (Oil and ghee).

This process ensures absorption of the active therapeutic properties of the ingredients used. Sneha Kalpana, an Upkalpana of both Kashaya Kalpana and Kalka Kalpana, is the process where the active principles of the drug are absorbed into the Sneha (Ghee or Oil)¹. By this process, one can ensure transformation of the active therapeutic properties of the ingredients to the solvents, and hence, one can recover fat-soluble as well as water-soluble chemical constituents.

In Ayurveda, Sneha is used in four types²:-

- Sarpi - ghee
- Taila - oil
- Vasa - fats
- Majja - bone marrow

According to combination: - yamak Sneha, trivrit Sneha, maha Sneha

Sneha Kalpana is done in the following three phases:

- First phase - Sneha Murchana
- Second phase - Sneha Pak
- Third phase - Paka Siddhi.

The aim of sneha kalpana is³

- To extract lipid soluble active principles from the

drugs.

- To make use of therapeutic values of oil/ghee.
- To enhance the shelf life of sneha preparation.
- To enhance the drugs absorption.
- To make the preparation more palatable and pleasing with good odour.

SnehaMurchna

Murchana is the first step towards any Sneha Pakaprocess.

Earliest it has been mentioned in Chakradutt Ratanaprabha by Nishchalker but here is just a mention about Murchana

but it is better explained in detail in Bhaishajya Ratnavali⁴. It is applicable to both Ghee and Taila.

Main aim of SnehaMurchana is to remove: -

1. Durgandha (Bad odor)
2. Amadhosha (Unrefined)
3. Ugrata (Sharpness)

After SnehaMurchana, Sneha will acquire the following qualities:-

- Good smell and color.
- Potency of Sneha is enhanced so that it can imbibe more active principles from the drug with which it is processed.
- Sneha will take up the active principles present in the Murchanadravya also.

Materials: SnehaKalpana needs the following materials –

- a) **Kalka dravya**- Paste of various parts of medicinal plants may be used.
- b) **Drava dravya**- Water, fresh juice, decoction, milk, kanji, butter milk etc.
- c) **Snehadravya**- SnehaKalpana is of two types like TailaKalpana and GhritaKalpana. Accordingly oil or ghee is used as base. Among oils, Tilatailais commonly used and among ghee, Goghrita is used.
- d) **Gandhadravya** - To give good odor, perfuming substances like Ela, Twak, Patra, Kakkola, Karpoora, Lavanga etc. may be used, wherever necessary.

Table : Ratio of Kalka Dravyas

Jala	-	4 : 1
kwatha	-	6 : 1
Ksira, Dadhi, Takra, Swarasa, MamsaRas	-	8 : 1

- The quantity of kalkadravya differs from general ratio depending on different dravadravya used. In case of ambu (jala), kwatha, Rasa (swaras) the kalka quantity will be 1/4th, 1/6th, 1/8th respectively.
- In case of godugdhadadhi, mamsaras, takra used as dravadravya the quantity of dravadravya should be 1/8th.
- If the numbers of dravadravya are 5 or more than 5 in number then quantity of each should be equal to that of Sneha.
- If they are less than 5 then the total quantity of all of them should be 4 times to that of Sneha.
- If only dravadravya are mentioned then kalka of same drug is prepared and used. However 4 times water is also added.
- If only kwathdravya are given in Sneha preparation then kalka of same drug is added.
- If case where kalka is either not indicated or restricted in any Snehakalpana, there Snehamay be prepared without kalka.
- In case of pusphakalka in preparation it should be taken in 1/8th part to that of Sneha but not as per general ratio.

Sneha Siddhi lakshana⁵

- Snehakalka attain perfect wick shape when rolled between thumb and index finger.
- If the part of Snehakalka is put into the fire, no sound is produced indicating the loss of moisture in it.
- Foam appears in tailapaka and it disappears in ghritapaka during completion of preparation.

- Desired colour, odor and taste of the preparation is properly done. ingredient become appreciable as the

Types of Snehapaka

- Preparation of Snehapaka is divided into types as given below

Three types	Five types
1. MruduPaka	1. AmaPaka
2. MadhyamaPaka	2. MruduPaka
3. KharaPaka	3. MadhyamPaka
	4. KharaPaka
	5. DagdhaPaka

- MruduPaka:** This is the first stage of SnehaPaka. When Kalka becomes gum like in consistency during SnehaPaka it is regarded as Mrudupaka.
- MadhyamaPaka:** This is to the second stage of SnehaPaka when the Kalka becomes similar to “a kind of Avaleha like” and does not stick to the Darvi then it is said to attain MadhyamPaka
- KharaPaka:** This is the third stage of SnehaPaka. When Kalka attain a state where it cannot be rolled into Varti, instead it breaks into smaller pieces then it is said to be khar paka.

SnehaPaka Uses

SnehaPaka	Uses
MruduPaka	For nasya
MadhyamPaka	Pana, abhyang, basti, nasya, karna purana, netrapuran
KharaPaka	KharaPaka

Specific time duration for Sneha paka⁶
The ghrita, taila, guda and such other preparations should not be cooked in single day. If done so may not acquire the desired therapeutic property.

The process has been carried out for more than a day by cooking at daytime and allowing paka to cool down overnight.

Drava Dravya	Time Required
Milk	2 days
Swaras	3 days
Takra, dadhi, kanji, gomitra	5 days
Roots, creepers, Climbers	12 days
Dhanya, mamsarasa	1 day

Precautions for SnehaKalpana

There is a necessity of utmost care and caution during the preparation of SnehaKalpana. The improper care may lead into poor quality of end products, loss during manufacturing or early rancidity of the oils. So, following precautions are to be taken:

a) Before processing

1. Good quality of oil should be taken which is

devoid of impurities.

2. Fresh oil should be selected (Old Ghee in case of GhritaPaka).
3. The necessary ingredients of good quality should be kept ready.

b) During the process

1. The tailaPaka should be carried in Mandagni; the intensity of the fire is maintained constant.
2. The mixture is stirred constantly and carefully to

- sure that the Kalka does not stick to the bottom of the vessel resulting into carbonization.
- Care should be taken to determine the proper stages of SnehaPaka.

c) After SnehaPaka process

- After getting the SnehaPaka siddhi lakshanas, the whole contents are gently filtered through a clean cloth; delay will lead into loss of oil, as the Kalka drugs absorb the oil contents.

- The perfuming drugs should be added gently with constant stirring when the oil is lukewarm.
- Whenever Lavana and Ksaras are used in the preparation, they are added to the Sneha and then strained.
- If Sarkara (Sugar) is mentioned in SnehaPaka, it is added to the final product, when it is cooled.
- The containers should be free from moisture.

Therapeutic uses of each stage of Paka

Table : Effect of Paka on Therapeutics^{7,8}

S.No.	Name of Pakas	CharakSamhita	SushrutaSamhita	AshtangaHridaya	SharangdharSamhita	HaritaSamhita
1	Ama	-	-	-	-	-
2	Mridu or Manda	Nasya	Oral	Nasya	Nasya	Not mentioned
3	Madhya or Chikkana	Oral and Enemata	Nasya and Massage	Oral and Enemata	Both external and internal	Internal and Enemata
4	Khara or Khara Chikkana	Massage	Enemata otic drops	Massage	Massage	Massage
5	Dagdha	-	-	-	No therapeutic Use	-
6	Vishoshi	-	-	-	Not mentioned	Mentioned and No therapeutic Use

II. DISCUSSION

Snehakalpana may be defined as a process, where ingredients like-Sneha, Kalka, Kwatha

Ksheera and Gandhadravayas are used for the preparation of medicaments. General method for proportion of Kalka: SnehaDravya: Drava Dravya is 1:4:16. There are mainly three types of Snehapaka and five Sneha siddhi lakshanas appear. Fat / water soluble active principles of drugs are extracted into Sneha in this method. The reason behind appearance of froth in oils and its disappearance in ghruta while preparing Snehakalpana lies in structural difference between both oil and ghruta. During the preparation extra benefits of Sneha are added in formulations as their qualities are also mixed in drugs. The quantity of kalkadravya differs from general ratio depending on different dravadravaya used. GhrutaKalpa has the advantage of both fat soluble principles. It prescribes usage of different medicated Ghruta for application of body, with or without massage for

providing health benefits and to treat specific indications. Ayurveda which are indicated for particular disease i.e. BrahmiGhruta, JatyadiGhruta are another group of products. Varieties of AyurvedicGhruta and Oil are used in different stages of PanchaKarma.

III. CONCLUSION

From the Review, it can be concluded that Snehakalpana is a very effective process and has various advantages. It is used to extract the fat soluble active principles from the raw material, enhance and absorption of drugs, when used topically in fat media. It also has extra benefits of specific Taila /Ghee (Nutritive) which is used to preserve the drug for longer time as it increases the bioavailability of drugs due to its Sukshma, Vyavayee Gunas. Finally, Snehakalpas are the only dosage form which can be used both internally as well as externally.

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