



# “COMPREHENSIVE REVIEW STUDY ON SNEHA AVARTANA”

Dr .Prashant S. Nimbalkar<sup>1</sup>, Harshavardhan Vasantrya Gaikwad<sup>2</sup> ,Prof. Prafull Arjun Patil<sup>3</sup> ,  
Prof. Vishal Shamrao Patil<sup>4</sup>, Dr., Dr Bhagyesh Dadasaheb Kare<sup>5</sup>

1.M.D ,Professor , Dept of Rasashastra and Bhaishjyakalpana ,Green fingers Ayurvedic Medical and  
Research Centre Shankarnagar Akulj

Email id- [dr.nimbalkar25@gmail.com](mailto:dr.nimbalkar25@gmail.com)

2. Assistant Professor, Dept of Rasashastra & Bhaishajya Kalpana , Shamrao Patil Ayurvedic Medical College  
Paniv

Email id - [drharshgaikwad@gmail.com](mailto:drharshgaikwad@gmail.com)

3.Professor, Department of Agad tantra, Pradip Patil Ayurvedic Medical College, Khutalwadi 416213  
Maharashtra.

4.Dean and Professor, Department of Kriya Sharir, Pradip Patil Ayurvedic Medical College, Khutalwadi  
416213 Maharashtra.

5. PG Scholar ( Final ) ,Department of Kriya Sharir, PDEA's College of Ayurved & Research Centre, Nigdi

Email id : [drbhagyesh12@gmail.com](mailto:drbhagyesh12@gmail.com)

## ABSTRACT-

Avartana is a technique of potentiating the formulations of Sneha Kalpana. The reference regarding the use of avartita sneha in Samhitas is particularly in Vatarogas.<sup>1</sup> The concept of Avartana is known from Samhita period but its application is very limited in due course of time due to its time-consuming procedure, increased cost and its outcome is very less in quantity. Due to the repetitive processing of sneha there may be change in the molecular structure and it may be the reason for its increased efficacy and greater bioavailability Avartana process also facilitate easy and proper administration with reduced dose<sup>2</sup>. Also it is a matter of fact that the transformation of simpler structure to its complex-one help to maintain the required serum concentration of its active principle and in-turns delayed excretion. Due to continuous heat application and mixing of ingredients again and again to the filtrate obtained, convert it in a very concentrated form, therefore a little quantity is enough for palliation of the disease. Also due to its higher concentrated form, it is absorbed quickly due to concentration gradient.<sup>3</sup>

**KEYWORDS-** *Sneh Kalapana, Avartana ,method of preparation, Use Of Avartana*

## INTRODUCTION-

Any *siddha sneha* is prepared using three basic categories of ingredients namely *kalka dravya* (drugs in paste form), *sneha dravya* (oleaginous substances like ghee/oil) and *drava dravya*

(drugs in liquid form like decoction/water/ juice/milk/urine etc.). General ratio of these categories followed for preparation of any *siddha sneha* is 1:4:16 respectively [4,5,6]. All three ingredients are mixed in the said proportion and are heated on a constant low flame till achievement of the testing criteria. This is considered as one *paka* (one cycle). When *sneha* is obtained after filtration of first *paka*, it is again treated with drugs in paste form and liquid form in the same proportion as mentioned. It is considered as second *paka* and the *sneha* is termed as *dwapaki sneha*. The process of *paka* is continued in the same manner to achieve desired potency.[7,8,9]

### **Sneha Avartana:** [10-42]

The word 'Avartana' denotes repeating the process several times. In Sneha kalpana this procedure is done in order to potentiate the final product and to achieve the maximum therapeutic benefit of the drug. When the process is repeated several times the dosage of the formulation can be reduced. For example the usual dosage of 'Ksheera bala 101' is 8-10 drops; whereas the dosage of Sneha according to Acharya Sharangadhara is 1 pala, to be given internally.

### **History:**

There are references regarding Avartana of both Ghrita and Tailas in Charaka Samhita, Sushruta Samhita, Astanga Hridaya, but a clear cut method of the pharmaceutical procedure is not mentioned. Ratnaprabha Teeka on Chakradatta is the first classical book which explains the pharmaceutical process of Avartana in the context of Dashapakabala Taila.

Another wonderful achievement of doing avartana in a sneha kalpana is that the properties of non- lipid substances can be easily transferred to a lipid substance by repeating the process. Therefore this avartita sneha penetrate Blood- CSF barrier where the entry of non-lipid soluble drugs is limited. Although the Avartana process changes the formulation in a very different way to make it very potent and with lots of beneficial changes but some disadvantages is also with it, as repeated paka increases the cost of the medicine. The time of preparation is increased. There are chances of loss of quantity of taila or ghrita as well as their medicinal properties so much caution is required during paka siddhi till its madhyama paka stage is attained. Even though avartana sneha is having many advantages, it is having some disadvantages like it is a time-consuming procedure and may not be cost effective. Also, there may be chance of loss in the quantity of sneha due to repeated heating.

## **MATERIALS AND METHODS-**

### **Pharmaceutical Perspective Of The Concept Of Sneha Avartana-**

**General method of preparation** • The basic ingredients are kalka, sneha and drava dravya in the ratio 1:4 :16 respectively

- The procedure is same as general method of sneha kalpana in case of ghrita kalpana or taila kalpana.
- All the three ingredients are mixed in the said and proportion and are heated on a constant low flame till the achievement of madhyama paka sneha siddhi. This is considered as the first paka.

When sneha is obtained after filtration of first paka, it is again treated with drugs in paste form and liquid form in the same proportion as mentioned. It is considered as second paka and the

sneha is termed as dwipaki sneha. The process of paka is continued in the same manner to achieve desired potency. After sneha paka the sneha is filtered and measured.

- After each paka the quantity of sneha obtained will be less because there will be loss in each paka.
- There will be change in the consistency, colour and odour in each avarti.

### Method of Preparation:

- The basic ingredients Kalka, Sneha, Dravadravaya are taken in ratio of 1:4:16 respectively. The method of preparation is similar to that of regular preparation of Sneha kalpana.
- After the Sneha paka, the Sneha is filtered and measured. The quantity of Kalka and Drava dravya for the second Avartana is calculated based upon the quantity of the Sneha obtained and added to the above filtered Sneha and paka is done. Likewise the process of preparing the Sneha paka is continued by done by adding the appropriate quantity of Kalka and Drava dravya every time based upon the Sneha obtained in the previous paka.
- After each Sneha paka the quantity of Sneha obtained will be proportionately less i.e. there will be loss after each paka.
- It is found that the consistency, the colour and odor of the product changes after each Avartana.

Opinions of Avatana:

#### 1) According to Gayadas:

In the context of the pharmaceutical process of Sahasrapaka Bala Taila in Sushruta Samhita Chikitsasthana 4<sup>th</sup> chapter, Gayadas mentions that, the method of preparation is similar to the general method of Sneha kalpana and the process should be repeated every time by adding appropriate quantity of Drava dravya. He further states that the Ksheera which is added during the process of Avartana will compensate the loss to some extent. So the process is repeated for 100 or 1000 times.

#### 1) According to Jejjata:

Commenting on Gayadas opinion, Jejjata says that if the process is repeated for 100 or 1000 times the loss of Sneha will be more and hence the final yield of the prepared Sneha will be very less. So the process of preparing the Sneha should be done by adding 100 or 1000 parts of Drava dravya at a single stretch.

#### 3) According to Nischalakar:

In Ratna Prabha teeka on Chakradatta, Nishchalakara mentions the method of preparation of Dashapaka Bala Taila. According to the reference the ratio of ingredients between Kalka, Sneha and Drava dravya is 1:4:16 respectively and the method to be followed is similar to Sneha kalpana. This process is repeated for 10 times hence it is called as Dashapaka Bala Taila. When this Dashapaka Bala Taila is taken and the pharmaceutical process of Sneha kalpana is repeated for another 10 times, then it is said to be Shathapaka Bala Taila. If this Taila is processed for further 10 times it is called Sahasrapaka Bala Taila.

**Reference regarding the number of Avartana:**

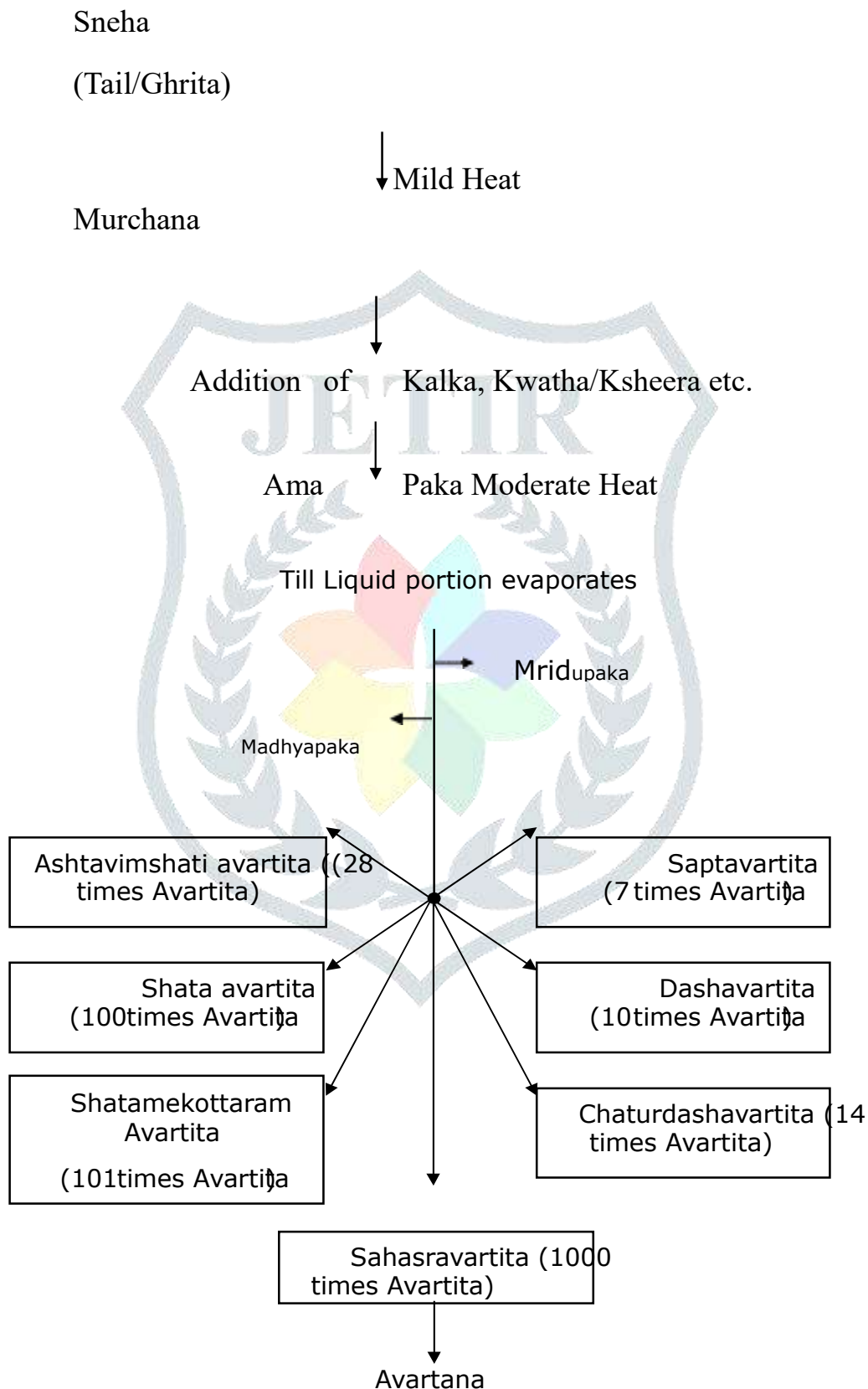
Formulation	Number of Avartana	Reference
Amalaka Ghrita	100 times	C.S.Chi 2/4
Amalaka Ghrita	1000 times	C.S.Chi 2/4
Bala Taila	10 times	Chakradatta22/35-36
Bala Taila	100 times	C.S.Chi 29/119
Bala Taila	1000 times	C.S.Chi 29/ 120
Ksheerabala Taila	100 times	A.H.Chi 22/ 45-46
Ksheerabala Taila	1000 times	A.H.Chi 22/ 45-46
Trivrtta Sneha	100 times	S.S.Chi.18/31
Yastimadhuka Taila	100 times	C.S.Chi.29/117-118

**Number of Avartana in the present time:**

S.I.No.	Formulation	Number of Avarthana
1	Ksheera Bala Taila	3 7 14 21 41 101
2	Sahacharadi Taila	3 7
3	Dhanvantara Taila	3 7 21 41 101

*Siddha sneha* is a novel and unique dosage form in Ayurved wherein active constituents from herbs, minerals or animal products are extracted into the lipids. Formulations prepared using the *avartana* principle are recommended in various conditions by almost all ayurvedic texts.

Showing flow chart of General Method of Preparation of Sneha paka along with various Avartita Tail



**DISCUSSION-**

During the review process of *samhitas* one can see a clear distinction between the two categories *avartita siddha taila* and *avartita siddha ghrita* based on *dosha* and efficacy profile. Further, it

was noticed that primary data on *sneha avartana* from concept to its efficacy is very limited. It underlines the need to explore this topic systematically at every stage viz. pharmaceutical, analytical, pre-clinical and clinical and generate authentic data on this important dosage form. If potentiated *sneha* will prove efficacious clinically; it can be dispensed in a sophisticated and compact form to make it patient compliant.

### Advantages of Avartana-

- Avartana process increases the potency and there by increases its action on cellular level.
- It helps to transform nonlipid components to lipid substances so that it can penetrate to blood-brain barrier where transportation of nonlipid substances is limited.
- Due to repeated processing, there will be change in the molecular structure so that it increases its surface area and results in greater bioavailability.
- Avartana helps in the transformation of simpler structures to complex structures which helps to maintain the drug concentration in the blood, there by delays the drug excretion.
- The repetitive processing makes the formulation into a highly concentrated form so that small dose is enough for the action.
- Tailas prepared by avartana technique will be absorbed quickly due to the concentration gradient.
- Avartana snehas are easy to administer and helps in easy packaging and dispensing

### CONCLUSION-

Avartana is one of the wonderful techniques in the processing of Sneha Kalpana which helps in easy administration with lesser dose, enhances its action up to the cellular level and making the formulation effective with greater bioavailability. So, it can be used as both external and internal administration like for pana, abhyanga, nasya etc. As the process converts non lipid substances to lipid substances, the formulations are getting lipophilic action so it can cross the blood brain barrier. It is highly effective in Vataja rogas and by external application it will get absorbed very quickly because of its change in concentration due to repeated heating process. Avartita sneha Kalpas should be encouraged as these are highly effective in conditions like vata rogas and as rasayana. Siddha sneha is the chosen form of drug for Ayurved clinicians for a broad range of conditions however it faces the issues of patient compliance. Thus drug potentiation and subsequent dose minimisation can be a feasible solution to overcome it. The concept of Avartana is known from Samhita period but its application is very limited in due course of time due to its time-consuming procedure, increased cost and its outcome is very less in quantity. Due to the repetitive processing of sneha there may be change in the molecular structure and it may be the reason for its increased efficacy and greater bioavailability Avartana process also facilitate easy and proper administration with reduced dose.

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