

International Research Journal of Ayurveda & Yoga

An International Peer Reviewed Journal for Ayurveda & Yoga



“A Pharmaceutical and Therapeutical Review of *Sneha Kalpana*”

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VOLUME 4 ISSUE 6

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Article received on 16 May 2021

Article Accepted 27 June 2021

Article published 30 June 2021

ABSTRACT: -

Sneha Kalpana is a type of *Aushadha Kalpana* in which *Sneha Paka* (*Taila Paka* Or *Ghrita Paka*) is done with prescribed *Kalka Dravya*, *Drava Dravya* And *Kwatha Dravya*. It is the only *kalpana* which can be used through all the four routs of drug administration. i.e. *Pana*, *Abhyanga*, *Nasya* And *Basti*. Our acharyas has mentioned the use of medicated *ghrita* and *taila* in maximum diseases, except *Urustambha*. They specifically indicated their use in case of *Vata Vyadhi*. Demand of different types of medicated *Taila* And *Ghrita* is increasing in the market. Various pharmaceutical companies are preparing a numerous medicated *taila* and *ghrita* and claiming very good results. For preparing *Taila Kalpana* Or *Ghrita Kalpana*, firstly *Taila* And *Ghrita* are supposed to undergo the process called *murchana sanskara*. By doing *Murchana Sanskara* *Dosha* like *Daurgandhatva*, *Ama* etc. are removed and therapeutic potency of *sneha* increases. There are mainly three types of *sneha paka* mentioned in our classical texts: *Mridu Paka*, *Madhayama Paka* And *Khara Paka* according to their therapeutic use. So, this article presents a detailed description of *Sneha Kalpana*.

Keywords: *Sneha Kalpana*, *Sneha Paka*, *Murchana Sanskara*, *Kalka Dravya*, *Abhyanga*, *Basti* etc.



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How to cite this article: Sharma S, Sharma M “A Pharmaceutical and Therapeutical Review of *Sneha Kalpana* IRJAY. [Online] 2021;4(6): 78-85. Available from: <http://irjay.com> ; DOI: <https://doi.org/10.47223/IRJAY.2021.4612>

INTRODUCTION

The substance which is having the *Guru*, *Sheeta*, *Sara*, *Snigdha*, *Sukshma*, *Manda*, *Mridu*, *Drava Guna* is called *sneha dravya*⁽¹⁾. There are four types of *sneha* mentioned in our classical texts: *Ghritha*, *Taila*, *Vasa* And *Majja*⁽²⁾. Among these four *sneha*, *ghrita* and *taila* are of most therapeutic use. *Sneha kalpana* stands for a pharmaceutical process in which *taila paka* or *ghrita paka* is done with prescribed *kalka* and *kwatha*.⁽³⁾ The use of *taila* or *ghrita* as a base is probably to extract the fat soluble active alkaloids from the ingredients used. So the solubility of both fat soluble and water soluble extractives in the *sneha* is achieved. These formulations are having longer shelf life. Different classical preparations of *oil* and *ghrita* are mentioned in our texts.

Properties of *Sneha Dravya*:

Ghritha:

In *Ayurveda Gavya Sarpi* (cows *ghrita*) is considered as the best *ghrita* among all because it has the property of *sansakaranuvartana*⁽⁴⁾ which means it does not lose its properties while processing with other drugs. In fact it assimilates the properties of processing material as well. It is *Sheeta Veerya*, *Madhur Vipaka* and having *Vata Pitta Shamaka*, *Vishanashaka*, *Balya*, *Ayushya*, *Medhya*, *Vyasthapaka* And *Chakshushya* properties⁽⁵⁾. If we see the composition of ghee obtained from Indian cow, it contains fat 32.4%, protein 36.0%, lactose 12.0%, moisture 14.4% and ash 5.2%. It also contains vitamin A, D, E and K⁽⁶⁾ which are antioxidants and are helpful in preventing oxidative injury to the body. Ghee also contains 4-5% linoleic acid which is an essential fatty acid that promotes proper growth of human body. Melting point of ghee is 35°C which is less than the normal human body temperature. Its rate of absorption is 96% which is highest of all fats and oils. To prepare

ghrita kalpana purana ghrita (old ghee), should be used because it is considered as *tridosha shamaka* by our *acharyas*.⁽⁷⁾

Taila:

The word *Taila* means the oily portion extracted from the drugs. *Acharya caraka* has mentioned that *Tila taila* is the best among all the vegetable oils⁽⁸⁾. *Tila taila* is the oily portion extracted from the seeds of *Sesamum indicum*. It is *Ushna*, *Teekshna*, *Vrishya*, *Vyavayi*, *Vikasi*, *Medhavardhaka*, *Chakshushya*, *Lekhana*, *Krimighana*, *Garbhashya*, *Shodhana*, *Yonishir karanashool prashamana*⁽⁹⁾. It alleviates *vata* but at the same time does not aggravate *kapha*. It promotes strength and is beneficial for skin. *Sesame* contains liquid fats (glycerides of oleic, linoleic acid-70%) and solid fats (sterin, palmitin, myristin, sesamin and phenol-12-14%) which are having antineoplastic properties.⁽¹⁰⁾

Concept of *Sneha Paka* according to different *Acharya*:

According to *acharya caraka*, where quantity of water, *sneha* and *aushadha dravya* is not mentioned, then one part of *aushadha dravya*, four parts of *sneha dravya* and sixteen parts of water should be taken.⁽¹¹⁾

Acharya sushruta has explained that when there is no specification of *drava dravya*, then water is advised, same way if there is no specification of *kalka* and *kwatha*, mentioned *drava varga*, *kalka* and *kwatha* can be prepared⁽¹²⁾.

According to *Sharangdhara Samhita*, *Taila Kalpana* Or *Ghritha Kalpana* is prepared by mixing one part of *kalka dravya*, four parts of *sneha dravya* (*ghrita* or *taila*) and sixteen parts of *drava dravya*.⁽¹³⁾ *Kalka* is prepared by grinding the drugs in a *khalva yantra* when fresh herbs are used. For dry drugs, water is added to make paste.⁽¹⁴⁾

Generally the quantity of *kalka* to be added 1/4th part with respect to quantity of *sneha*, but this principle varies with the different liquid

substances.

Drava dravya:

- *Drava dravya* may be one or more like *swarasa, kasaya, ksheera, dadhi, takra, kanji, laksharasa, mansarasa* etc. If *sneha* is to be prepared with water, *kwatha, mansarasa* and *swarasa*, then the quantity of *kalka* should be 1/4th, 1/6th and 1/8th respectively.⁽¹⁵⁾
- If *sneha* is to be prepared with *ksheera, dadhi, mansarasa* or *takra* then the *kalka* should be 1/8th and four times of water is also added.⁽¹⁶⁾
- If more than five *drava dravya* are mentioned then those *drava dravyas* should be taken in equal quantity to *sneha* but if *drava dravya* are lesser than five, then quantity of total *drava dravyas* should be four times to the *sneha*.⁽¹⁷⁾

Kwatha Dravya:

In *kwatha* preparation, four times of water is taken for *Mridu Dravya*, eight times of water is taken for *Madhyama* And *Kathina Dravya* and sixteen times of water is taken for *Atyantakathina Dravya*. If quantity of each drug varies from one *karsa* to one *pala*, sixteen times of water is taken. If from *pala* to *kudava*, eight times of water is taken and if from *Prastha* To *Khari*, four times of water is taken.⁽¹⁸⁾

Sneha Paka Kala:

Acharya sharangdhara has mentioned that preparation of *Ghrita, Taila* Or *Guda Kalpana* should not be completed in one day. Longer the duration of preparation, better the equisition of properties of drugs into them. So the *sneha paka* should be done for 2-3 days not in a single day.⁽¹⁹⁾

Sneha paka kala depends on the nature of *drava dravya* added to *sneha*. Different time period is mentioned for different *drava dravya* in our classical texts as mentioned below⁽²⁰⁾ :

Kshira: 2 days

Swarasa: 3 days

Takra, aranala(kanji) etc. : 5 days

Kwatha prepared with *mula* and *valli*: 12 days

Vrihidhanya and *mansarasa*: 1 day

In some texts for *kwatha*, 5 day duration is mentioned.

Sneha Patra:

A wide mouthed copper, iron vessel or earthen vessel should be taken to prepare *sneha kalpana*.

METHOD OF PREPARATION

There are three stages of *sneha paka*:

1. *Poorva karma- Sneha murchana*
2. *Pradhana karma-.Sneha Paka*
3. *Paschata karma- Sneha Paka Pariksha*

Sneha Murchana:

Before preparing *sneha sidhakalpana*, *sneha* is supposed to undergo *murchana sanskara*. The main aim of *sneha murchana* is to remove *doshas* like *daurgandhyatva, amdosha* etc. and to increase the potency of particular *sneha*. *Sneha murchana* is indicated for both *ghrita* and *taila kalpana*.

Ghrita murchana⁽²¹⁾

Ghrita murchana is done with the following ingredients:

<i>Haritaki</i>	: 1tola
<i>Bhitaka</i>	: 1tola
<i>Amlaki</i>	:1tola
<i>Nagarmotha</i>	:1tola
<i>Haridra</i>	:1tola
<i>Matulunganimbuswarasa</i>	:1tola
<i>Ghrita</i>	:1 Prastha
<i>Water</i>	:4 Prastha

Murchana Vidhi: First of all *kalka* of mentioned drugs is prepared by adding *Matulunga Nimbu Swarasa*. Now *goghrita* is taken in a vessel and heated over *mandagni*. Then prepared *kalka* is added to *ghrita* little by little and continues stirring is done to avoid burning of *kalka*. After that water is added and *ghrita paka* is done till it gets the *Sneha Sidhi Lakshana*. After that vessel is taken out from the fire and *ghrita* is filtered.

Taila murchana: ⁽²²⁾

Taila murchana is done with the following ingredients:

<i>Manjistha</i>	: 1/16part
<i>Haridra</i>	: 1/64part
<i>Lodhra</i>	: 1/64part
<i>Nagarmotha</i>	: 1/64part
<i>Nalika</i>	: 1/64part
<i>Amalaki</i>	: 1/64part
<i>Haritaki</i>	: 1/64part
<i>Vibhitaki</i>	: 1/64part
<i>Kevada</i>	: 1/64part
<i>Kumari</i>	: 1/64part
<i>Netrabala</i>	: 1/64part
<i>Tila taila</i>	: 1part
Water	: 4parts

Murchana vidhi:

Above mentioned drugs are made in *kalka* form by adding little amount of water. Now *tila taila* is heated over *mandagni*. Then this *kalka* and mentioned amount of water is added to *taila* and heated again over *mandagni* for *taila paka*. When *sneha sidhi lakshana* appears, vessel is taken out from the fire and *taila* is filtered.

Sneha Paka Vidhi:

Firstly *murchita ghrita* or *tila taila* is taken in the iron vessel and heated over *mandagni*. Then it is taken out from the fire and *kalka* is added to *sneha*. Continues stirring with iron laddler is done to avoid burning of the *kalka*. After that mentioned quantity of *drava dravya* is also added and the mixture is allowed to heat over *mandagni* till the watery portion gets evaporated and *sneha sidhi lakshana* appear.

Sneha sidhi lakshana:

Acharya sharangdhara has explained some testing parameters of *sneha paka* called *Sneha Sidhi Lakshana*.⁽²³⁾ A small quantity of *kalka* is taken out at the end of *sneha paka* and rolled in between the fingers. If it assumes a *varthi* and does not produce any crackling sound if thrown on fire, it means *sneha paka* is complete. Likewise appearance of *phena* (foam) in *taila paka* and disappearance of *phena* in *ghrita paka*

takes place at the end of *sneha paka*. Beside these parameters emission of good smell, colour and taste are also other tests for *sneha paka*.

Stages/Types of Sneha Paka :

On the basis of mode of administration of *sneha*, there are three stages of *sneha paka* mentioned in our *samhitas*: *Mridu paka*, *madhyam paka* and *khara paka*.⁽²⁴⁾ These *pakas* can be identified on the basis of consistency of *kalka* while preparing *snehakalpana*. According to *acharya sharangdhara*, if *kalka* which is pressed between fingers, yields large quantity of then it is said to be *mridu paka*⁽²⁵⁾. In this stage, the *kalka* is sticky and produces crackling sound when kept on fire. If *kalka* doesn't yield any *sneha* but is soft in consistency, the *paka* is *madhyama*⁽²⁶⁾. In this stage the *kalka* doesn't produce any crackling sound when put on fire. *Kalka* can be made in *varti* form. *Madhyama paka* further leads to *khara paka* in *Khara paka*⁽²⁷⁾, *kalka* is hard, rough and it doesn't yield any *sneha*. *Acharya caraka and acharya Sushruta* have the same concept as *Sharangdhara*.⁽²⁸⁾

Acharya Vagbhata has explained two more stages of *sneha paka*: *Amapaka* and *dagdha paka*. *Amapaka* is due to deficient heating. The water content can be seen in both *kalka* as well as *sneha* and both the fluids can be differentiated very well. The word *ama* indicates reduced digestion so the use of this type of *sneha* causes indigestion

Acharya bhavmishra, mentions almost the same properties of *amapaka* as it is *guru* and it will cause *aruchi* and gastric discomfort. Boiling still further after *kharapaka* leads to *dagdha paka* which causes burning sensation if used. *Acharya Bhavamishra* mentions that *dagdha paka sneha* is *vata vardhaka*.

Uses of *sneha paka*:

Different *acharya* have different opinions for the use of three types of *sneha paka* which are mentioned in the table below:

<i>Acharya</i>	<i>Mridu Paka</i>	<i>Madhyama Paka</i>	<i>Khara Paka</i>
<i>Caraka</i>	<i>Nasya</i>	<i>Basti and pana</i>	<i>Abhyanga</i> ⁽²⁹⁾
<i>Sushruta</i>	<i>Pana</i>	<i>Nasya and Abhyana</i>	<i>Basti and Karan poorana</i> ⁽³⁰⁾
<i>Vagbhatta</i>	<i>Nasya</i>	<i>Sarva karma</i>	<i>Abhyanga</i>
<i>Sharanddhara</i>	<i>Nasya</i>	<i>Sarva karma</i>	<i>Abhyanga</i> ⁽³¹⁾

Acharya sharngdhara has explained a specific *paka* of *sneha kalpana* called *surya paka*⁽³²⁾ for *Kasisadya Ghrita Nirmaana* where all the mentioned drugs are powdered, mixed in *ghrita* and is kept in sunlight for seven days. This method of *sneha paka* is commonly used for the drugs which are having volatile properties.

Dose: *Acharya Sharangdhara* has explained that *sneha* should be taken in the amount of *1pala* for internal use.⁽³³⁾

Precautions:

- *Sneha* should be pure, clear and should be taken after *murchana sanskara* only.
- Preferably *purana ghrita* should be used
- *Sneha patra* should be wide mouthed.
- *Sneha paka* should be done over *mandagni* to avoid burning of *kalka*.
- Stirring of the mixture should be done constantly and carefully to avoid burning of *kalka*.
- When all the *drava dravyas* have evaporated, at this stage, stirring is done more often to ensure that *kalka* doesn't stick to the bottom.
- *Kalka* is taken out in laddle and should be tested time to time to know the stage of *paka*.
- In order to obtain optimum quantity of *sneha*, *kalka* should be squeezed at hot stage only.
- *Gandhapaka dravyas* should be added gently with stirring when the *sneha* is in luke warm state.

Shelf life: *Acharya sharangdhara* has mentioned that *saveeryata avadhi* (shelf life)

of *ghrita* and *taila* is about 16 months.⁽³⁴⁾ According to Drug and Cosmetic Act 1940 and Drug and Cosmetic Rules 1945, the shelf life of *ghrita* is 2 years and *taila* is 3 years respectively⁽³⁵⁾.

DISCUSSION

In ancient literature, there is immense description regarding manufacture of *Sneha kalpana*. To prepare best medicated *ghrita* or *taila*, its pharmaceutical preparation must be done very carefully. Our *acharyas* have fixed the duration of *sneha paka* according to the mentioned *drava dravya* because *kseera*, *mansa rasa*, *dhanya* etc. are easily get fetid and impart bad odor within a day due to biodegradation. *Swarasa* as such is a thicker media than above liquids and it may take longer time period to give out active principles to the oleaginous media. This may be the reason that *acharyas* has mentioned time period of 3 days for *Sneha Paka* With *Swarasa*. For *Kwatha*, *Kanji* And *Takra*, 5 days are prescribed for *Sneha Paka*. This may be due to the fact that these *Drava Dravya* may take longer time to impart chemical constituents. *Valli* and *mula* are dried and hard substances and may take as much as 12 days of longer period to give out their potent chemical constituents to the oleaginous media. Thus we find a very scientific approach of our *acharyas* behind the manufacturing time period of *sneha kalpana* As

we see, before *sneha paka*, *sneha murchana* is mandatory. The purpose of *sneha murchana* is to remove *durgandhatva* and *amadasha* of the *sneha*. *Sneha* gets good colour and smell. Because of *murchana sanskara*, *sneha* may be capable of getting active principles of *murchana dravyas* and the potency of *sneha* may get enhanced. After *sneha paka*, if we see the *sneha sidhi lakshna*, appearance of *phena* in *taila paka* and disappearance of *phena* in *ghrita paka* takes place. As mentioned above, cows ghee contains saturated fatty acids and because of this reason, when it is heated with some liquids it produces such a mixture due to liquefaction which resembles *phena* and this foam subsides at a particular stage, when total water content is get evaporated. Hence our *acharyas* has mentioned very scientifically the disappearance of *phena* as a significant character among *sneha sidhi lakshana*. This character is quite opposite in case of medicated oils because the composition of oil differs from *ghrita*.

Rationality for uses of *sneha paka*:

There are three types of *Sneha Paka* : *Mridu*, *Madhyama* And *Khara Paka*. *Mridu Paka* is indicated for *nasya* in our classical texts. This may be due to the fact that *mridu paka* contains even a little amount of water which may act as *saumya* and it may not produce any irritation to the *nasal mucosa*. Most of the *acharyas* has mentioned that *madhyama paka* is best for internal use. It may be due to the fact that active chemical constituents are in its optimum in *Madhyama Paka* which may help to achieve the desired effects. Simultaneously no chance of *agnimandya* is there. *Kharapaka talia* is absolutely free from moisture and is quickly absorbed from the skin. Beside this, the contents in *khara paka* undergo its peak, which ultimately provides better oxidative properties which are desired during external application. *Amapaka* may not give any therapeutic effect because it contains much water content and

having less medicinal properties. Similarly *dagdhapaka* may not be beneficial for both external and internal use because it possess least amount of chemical constituents and may cause burning sensation of stomach if used internally. In *surya paka*, the *sneha* is prepared by heating through sunlight. This is employed in case where *sneha* is to be prepared from the drugs which contain volatile and heat sensitive components. The aim of designing this process may be to extract fat soluble active principles in low and controlled temperature.

CONCLUSION

So with this review it can be concluded that *sneha kalpana* has various advantages and is used to extract the fat soluble active principles from the raw material. Beside this, properties of *taila* and *ghrita* increase the bioavailability of the drugs due to their *sukshma* and *vyavayi guna*. Different types of medicated *ghrita* and *taila* are being widely used in clinical practice nowadays. So it is very important to ensure the quality of prepared *taila* or *ghrita* and a good quality product is always prepared by using good quality raw material and an efficient pharmaceutical process.

Acknowledgment: Nil.

Financial Support: Nil.

Conflict of Interest: Nil

REFERENCES

1. Acharya Vagbhatta By Ashtanga Samgraha Sutra Sthana Varanasi Chaukhambha Orientalis;2009.p.188
2. Shastri K Charaka Samhita (5th Ed) Sutra Sthana 13/13 Varanasi Chaukhambha Orientalis ;2003.p.257
3. Shrivastava S, Sharnagdhara Samhita Madhyama Khanda 9/1 Delhi Chaukhambha Sansthan;2004.p. 215

4. Shastri K Charaka Samhita (5th Ed) Sutra Sthana 13/13 Varanasi Chaukhambbha Orientalis ;2003.p.257
5. Dutt A Sushruta Samhita "Sutra Sthana 45/96 Varanasi Chaukhambbha Orientalis ;2003.P.228
6. Rama K, Bhaishajya Kalpana Varanasi Chaukhambbha Orientalis ;2006.p.319
7. Dutt A Sushruta Samhita "Sutra Sthana 45/107 Varanasi Chaukhambbha Orientalis ;2003.p.229
8. Shastri K Charaka Samhita (5th Ed) Sutra Sthana 13/12 Varanasi Chaukhambbha Orientalis ;2003.p.256
9. Shastri K Charaka Samhita (5th Ed) Sutra Sthana 45/112 Varanasi Chaukhambbha Orientalis ;2003.p.230
10. Rama K, Bhaishajya Kalpana Varanasi Chaukhambbha Orientalis ;2006.p.325
11. Shastri K Charaka Samhita (5th Ed) Kalpa Sthana 12/101 Varanasi Chaukhambbha Orientalis ;2003.p.957
12. Dutt A Sushruta Samhita Chikitsa Sthana 31/9-10 Varanasi Chaukhambbha Orientalis ;2003.p.167
13. Shrivastva S, Sharnagdhara Samhita By Acharya Sharngdhara "Madhyama Khanda 9/1-2 Varanasi Chaukhambbha Orientalis ;2003.p.215
14. Shastri K, Charaka Samhita (5th Ed Varanasi Chaukhambbha Orientalis ;2003.p.68
15. Shrivastva S, Sharnagdhara Samhita By Acharya Sharngdhara "Madhyama Khanda 9/1-2 Varanasi Chaukhambbha Orientalis ;2003.p.215
16. Shrivastva S, Sharnagdhara Samhita By Acharya Sharngdhara "Madhyama Khanda 9/1-2 Varanasi Chaukhambbha Orientalis ;2003.p.215
17. Shrivastva S, Sharnagdhara Samhita By Acharya Sharngdhara "Madhyama Khanda 9/1-2 Varanasi Chaukhambbha Orientalis ;2003.p.215
18. Shrivastva S, Sharnagdhara Samhita By Acharya Sharngdhara "Madhyama Khanda 9/1-2 Varanasi Chaukhambbha Orientalis ;2003.p.216
19. Shrivastva S, Sharnagdhara Samhita By Acharya Sharngdhara "Madhyama Khanda 9/1-2 Varanasi Chaukhambbha Orientalis ;2003.p.215
20. Mishra S, Bhaishajya Ratnawali By Gvindadasasena "Sidhiprada" Hindi Commentary By Varanasi Chaukhambbha Orientalis ;2003.p.206
21. Rama K, Bhaishajya Kalpana Varanasi Chaukhambbha Orientalis ;2006.p.206
22. Shrivastva S, Sharnagdhara Samhita By Acharya Sharngdhara "Madhyama Khanda 9/13 Varanasi Chaukhambbha Orientalis ;2003.p.216
23. Shrivastva S, Sharnagdhara Samhita By Acharya Sharngdhara "Madhyama Khanda 9/1-2 Varanasi Chaukhambbha Orientalis ;2003.p.215
24. Shrivastva S, Sharnagdhara Samhita By Acharya Sharngdhara "Madhyama Khanda 9/15 Varanasi Chaukhambbha Orientalis ;2003.p.217
25. Shrivastva S, Sharnagdhara Samhita By Acharya Sharngdhara "Madhyama Khanda 9/16 Varanasi Chaukhambbha Orientalis ;2003.p.217
26. Shrivastva S, Sharnagdhara Samhita By Acharya Sharngdhara "Madhyama Khanda 9/16 Varanasi Chaukhambbha Orientalis ;2003.p.217
27. Shrivastva S, Sharnagdhara Samhita By Acharya Sharngdhara "Madhyama Khanda 9/12 Varanasi Chaukhambbha Orientalis ;2003.p.217
28. Shastri K Charaka Samhita (5th Ed) Kalpa Sthana 12/103 Varanasi Chaukhambbha Orientalis ;2003.p.957
29. Shastri K Charaka Samhita (5th Ed) Kalpa Sthana 12/104 Varanasi Chaukhambbha Orientalis ;2003.p.957

30. Dutt A Sushruta Samhita Chikitsa Sthana 31/11 Varanasi Chaukhambha Orientalis ;2003.p.167
31. Shrivastva S, Sharnagdhara Samhita By Acharya Sharngdhara “Madhyama Khanda 9/18 Varanasi Chaukhambha Orientalis ;2003.p.218
32. Shrivastva S, Sharnagdhara Samhita By Acharya Sharngdhara “Madhyama Khanda 9/55 Varanasi Chaukhambha Orientalis ;2003.p.222
33. Shrivastva S, Sharnagdhara Samhita By Acharya Sharngdhara “Madhyama Khanda 9/1-2 Varanasi Chaukhambha Orientalis ;2003.p.215
34. Shrivastva S, Sharnagdhara Samhita By Acharya Sharngdhara Poorva Khanda 1/5 Varanasi Chaukhambha Orientalis ;2003.p.12
35. Drug And Cosmetic Act 1940 And Drug And Cosmetic Rules 1945 Rule 161(B)II p.193

