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# A Critical Review on Go-Ghrita, Shata Dhouta Ghrita and Sahasra Dhouta Ghrita

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# ABSTRACT

Traditional medical system has always played an important role in the maintenance of health of mankind. Modern medicine has been drawing inputs from these traditional systems since their very beginning. Samskara in Ayurveda, is a process of transformation of inherent attributes of a substance. This is created by dilution, application of heat, cleansing, churning, storing in a specific place, maturing, flavoring, impregnation, preservation, container etc. Ancient scholars considered that Ghrita is able to perform multiple actions if processed accordingly. On the base of this, many Samskaras are employed for Ghrita and subsequently various pharmacological actions are observed. Shatadhouta Ghrita and Sahsradhouta Ghrita are also an outcome of that keen observation. Shatadhouta Ghrita and Sahsradhouta Ghrita are two Ayurvedic preparations, which are prepared by washing cow ghee for hundred and thousand times respectively. They are considered as best alleviators of Pitta Dosha and burning sensation, in the treatments of wound healing. On the basis of detailed literary review, it was understood that, Shatadhouta Ghrita and Sahasradhouta Ghrita should be prepared by pressure washing of Ghrita with water. These preparations are indicated for Dahashamana action. Both of them have the properties as that of oil in water kind of emulsion.

Key words: Samskara, Ghrita, Shatdhouta Ghrita, Sahasradhouta Ghrita.

# **INTRODUCTION**

Samskara<sup>[1]</sup> in Ayurveda, is a process of transformation of inherent attributes of a substance. This is created by dilution, application of heat, cleansing, churning, storing in a specific place, maturing, flavoring, impregnation, preservation, container etc. Every Samskara could not be employed to any Dravya, selection of proper Samskara for any

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Dravya will depend on Mahabhuta predominance and configuration of Mahabhutas of that Dravya. This specificity in selecting ideal Samskara for Dravyas, was the key factor behind formulating an effective dosage form in classical Ayurvedic texts. Ancient scholars considered that Ghrita is able to do thousands of functions, if processed accordingly. On the base of this, many Samskaras are employed for Ghrita and they could obtain many pharmacological actions from it. Shatadhouta Ghrita Sahasradhouta are also an outcome of that keen observation. Here if Ghrita is washed for hundred times or thousand times, that can also contribute some therapeutic effect to it. These Ghritas are considered as good alleviators of burning sensation and Pitta Dosha.

In current practice of *Ayurveda*, it is considered that, they are ideal drug of choice in the case of burn wound. *Ghrita* is a known drug for its *Ropana Guna*.

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# **REVIEW ON GO-GHRITA**

In India, clarified butter is called as *Ghrita*. It is the most precious substance provided by the most sacred beast on earth. *Ghrita* is the chief form of cooking oil in any Indian regional cuisines, used medicinally and plays a part in some Hindu religious ceremonies. Thus, *Ghrita* has been so highly regarded for so many things, for so long. When we say *Ghrita*, it mainly denotes *Goghrita* (cow ghee). It is considered as best among all types of *Ghrita*.

# Mythology of Ghrita

In Hindu mythology, *Prajapathi* - lord of creatures, created *Ghrita* by rubbing or "churning" his hands together and then poured it in to fire to engender his progeny. Whenever the Vedic ritual was performed by pouring *Ghrita* in to fire, it was a re-enactment of creation. Butter in mythologies is a symbol of semen, churning represents the sexual act, and the formation of child in its mother's womb. (Reference)

# **Vedic period**

During Vedic era people had the knowledge of Chatush Sneha. The description of Ghrita, Taila etc. are available in Vedic literature. According to Vedic analogy Ghrita is hidden in milk, like the divine lord in creation. The Vedas call Ghrita the first and the most essential of all foods and Ghrita is a central element of Vedic culture. The great theme of the Vedas is Yajgna (sacrifice) and Ghrita is the essential offering to Agni (fire) in all Yagnas. Agni is the mouth of the gods through Agni offerings are made to Gods. Ghrita is the food that feeds them. The God, Agni, the first word deity of Rig Veda is known as Hutabhu (The devourer of Ghrita). In Yajurveda the term like Havi and Ajya were given for Ghrita.

#### **Brahmana** period

In Shatapad Brahmana for denoting Ghrita, three words were used viz, Ajya, Ghrita and Ayuth and its specific uses were also mentioned. In Ethareya Brahmana, Ghrita was denoted by following words – Navaneeta, Ajya, Ghrita and Ayuth and its specific uses were also mentioned.

# **Upanishad period**

In Brahadaranyokopanishad the references of *Ghritha Kalpana* were available.

#### Samhita Period

This period is considered as the golden period for multiple utility of *Ghrita*. In Brihatrayee, *Ghrita* flourished due to its immense use for different purposes ranging from external applications to internal administration through different routes.

# **Susrutha Samhita**

In Susrutha Samhita, a separate *Varga* called *Ghrita Varga*<sup>[2]</sup> is available, *Purana Sarpi*, *Maha Ghrita*, *Kumbha Ghrita*, are some of the types of *Ghrita* as per this Samhita. *Ghrita* qualities are also highlighted in detail, in this treatise. In *Susrutha Chikitsa Sthana Acharya* dealt with *Sneha Mahatwa*, *Sneha Bheda*,<sup>[3]</sup> *Snehopayoga*, Pakavidhi<sup>[4]</sup> etc. *Susrutha* gives description regarding *Ghrita* which is made out of *Ksheera* i.e. *Ksheerotha Ghrita*.<sup>[5]</sup> The properties of *Ksheerotha Ghrita* is also well explained in Susrutha Samhita.

# **Charaka Samhita**

Elaborate description of Sneha Yoni i.e. sources of oils and fats, types of Sneha, properties of Ghrita and Taila etc. are mentioned in detail in this treatise. Charaka has described various aspects of Ghrita in different contexts. Ghrita as per Charaka Samhita, one among the *Drayvas* in *Nithvasevanivadrayva*<sup>[6]</sup> and he considered Ksheeraghrithabhyasa for daily basis as best Rasayana.[7] Ghrita is considered as best among Chathush Sneha due to its Samskarasya Anuvartana Guna<sup>[8]</sup> Ghrita Guna, Karma etc. he explained in the context of Snehana Karma. Later he added much information about Ghrita in the context of Ksheera Varga. Logic of systematic usage of Ghrita for better therapeutic effect is available in Jwara Chikitsa of Charaka Samhita.<sup>[9]</sup> Wide usage of *Ghrita* is mentioned in Unmada Chiktsa and Kushta Chikitsa Adhyaya. In this context Acharya Charaka explains about Purana Ghrita, Prapurana Ghrita with their organoleptic properties and therapeutic properties.[10]

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# Ashtanga Samgraha and Ashtanga Hrudaya

In both treatises, detailed description of *Ghrita* is available in the context of *Drava Dravya Adhyaya*. He highlighted that the *Vrana Shodhana Ropana* action is more with *Purana Ghrita*.<sup>[11]</sup>

#### **Haritha Samhita**

Qualities of *Ghrita* and their specific indication have been mentioned in *Ghrita Varga*.<sup>[12]</sup>

#### Bhavaprakasha

In the context of *Ghrita Varga*, he explaines about synonyms, properties of *Ghrita*. He also explaines some of the types of *Ghrita* like *Haiyangavinam*, *Navina Ghrita*, *Puran Ghrita* etc. and their properties.<sup>[13]</sup>

# Sharangadhara Samhitha

Detailed description about *Sneha Kalpana* is available in this *Samhita*. Various *Ghrita Yogas* are discussed in this context.<sup>[14]</sup>

# **Dhanvantari Nighantu**

Author has given a different *Varga* to include all types of *Ghrita*. Description of 8 types of *Ghrita* is available here. Various synonyms has been contributed by this scholar to *Ghrita*.<sup>[15]</sup>

#### Bhaishajya Rathnavali

Govinda Das Sen has introduced *Murchana Karma* for *Ghrita* and *Taila*.<sup>[16]</sup>

# Special properties with Ghrita

Though *Ghrita* is *Sheeta Virya*, it is *Agnideepaka* in nature. *Ghrita* is superior among *Sneha* due the property "*Samskarasayanuvartanat*". When we analyze the meaning of this word, where *Anu* refers that the properties which are going to be acquired by *Samskara* will follow the main property of the *Ghrita* as the explanation goes '*Svagunavartanasya Paschat Samskaragunavartanamucyate*'. This means *Ghrita* does not give up its own properties even if it is mixed up with substances possessing other properties. With its own qualities intact, it has the capacity to transform itself so as to imbibe the qualities of other substances added to it.

# Pharmaceutical importance of Ghrita

- Ghrita is one of the inevitable component in many pharmaceutical procedures. It is utilized in various forms in pharmaceutics.
- Ghrita is used as Sneha Dravya in Sneha Kalpana. It helps in extraction of lipid soluble active principles from the drugs. It transforms Ghrita's therapeutic values to the Dravya and enhances the drug absorption.
- Ghrita is used in many Avaleha preparation, which helps in proper mixing of Leha and better absorption.
- Ghrita is used for the Shodhana of drugs like Gandhaka, Hingu etc.
- For tha preservation of Guggulu Kalpana, Ghrita is used.
- It is used in Bhajana Samskara i.e. Ghrita will be completely applied over the inner surface of the vessel used for Sandhana process during Asavarishta preparations.
- It is a component in Kruta Yusha and Krutha Mamsarasa.

# Pharmacological action of Ghrita

It contains approximately 8% lower saturated fatty acids which makes it easily digestible. These are the most edible fat and which are not found in any other edible oil or fat. It contains Vitamins, in which Vit. A and Vit. E are anti -oxidants and are helpful in reducing ketone bodies, helpful in preventing oxidative injury to the body. Vit. A keeps epithelial tissue of the body intact, keeps the outer lining of the eyeball moist and prevents blindness. Essential fatty acids promote proper growth of the human body.

The melting point of *Ghrita* is 35°C which is less than the normal temperatures of the human body. Its digestibility coefficient or rate of absorption is 96% which is highest of all oils and fats. Since active ingredients are mixed with *Ghrita* they are easily digested and absorbed.

Lipophilic action of *Ghrita* facilitates transportation to a target organ and final delivery inside the cells,

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because cell membrane also contains lipid. This lipophilic action of *Ghrita* facilitates entry of the formulation into the cell and its delivery to the mitochondria microsome and nuclear membrane. *Ghrita* contains beta - carotene and Vit. E both are known anti -oxidants.

#### Shata Dhouta Ghrita and Sahasra Dhouta Ghrita

Shata Dhouta Ghrita and Sahasra Dhouta Ghrita literarally mean that Ghrita washed for hundred times and thousand times respectively. Though in Samhitas explanations regarding these preparations are appeared as one word like Shata or Sahasra Dhouta Ghrita, it was the commentators who had expanded these terms. [17],[18]

The literature of *Shatadhouta Ghrita* and *Sahasradhouta Ghrita* in various classical books of Ayurveda

#### Susrutha Samhita

- Shatadhouta Ghrita Lepana on area of bite after Jaloukavacharana is explained.<sup>[19]</sup>
- While narrating the Chikitsa of Jwara with Daha, usage of Shatadhouta Ghrita is mentioned.

# **Charaka Samhita**

- Usage of Shatadhouta Ghrita and Sahasradhouta Ghrita is explained in Sharirasthana eigth chapter while dealing with treatment for Garbhasrava.<sup>[20]</sup>
- Sahasradhouta Ghrita Abhyanga is explained in the context of Jwara with Daha.
- Description regarding the usage of Shatadhouta Ghrita with Nyagrodha etc. drugs is available in Pittaja Visarpa Chikitsa.<sup>[21]</sup>

# Ashtanga Sangraha

 Shatadhouta Ghrita along with Kshirivruksha as Lepa is advised to use in Vataraktha.

# Ashtanga Hrudhaya

- Shatadhouta Ghrita Lepana is explained for agni visarpa<sup>22</sup>.
- Sahasradhouta Ghrita Lepana is recommended for Abyanga in Jwara with Daha.<sup>[23]</sup>

# **Sharangadhara Samhita**

- In Sharangadhara Samhita, Lepa explained for Vatarakata contains Shatadhouta Ghrita.<sup>[24]</sup>
- Procedure of Tarpana with Shatadhouta Ghrita is available in Netraprasadana Karmaani Adhyaya of Uttarakhanda.<sup>[25]</sup>

#### **Cakradutta**

 Usage of Shatadhouta Ghrita is available in Daaha Chikithsa Adhyaya.<sup>[26]</sup>

# Yogaratnakara

- Muhur Muhur Lepana of Shatadhouta Ghrita is explained for all types of Visarpa.<sup>[27]</sup>
- Lepana of Shatadhouta Ghrita with Pancavalkala is recommended in the context of Visarpa Chikitsa.

# Vaidhyaka Shabdha Sindhu

 In this book the method of preparation and therapeutic utility of Shatadhouta Ghrita is available.<sup>[28]</sup>

# Process involved in converting Ghrita in to Shatadhouta Ghrita and Sahasradhouta Ghrita

#### **Bhajana Samskara**

This is the Samskara which helps in explaining the role of vessel, which is used for the preparation of a product. In the explanation of the preparation of Shatadhouta Ghrita or Sahasradhouta Ghrita specification of particular vessel is not available. Later scholars of Bhaishajya Kalpana had prefered to use Kamsya Patra for the preparation of Shatadhouta Ghrita or Sahasradhouta Ghrita.<sup>[29]</sup> The criteria to select Kamsya Patra is its Kushtagna property. It is considered that this property of Kamsya Patra can transfer into the Ghrita which undergoes Dhouta Karma.

# Toya Sannikarsha

It is the main process to be utilized in this study. *Toya* is the synonym of water. This *Samskara* facilitates a proper interaction between the drugs and water. *Jala Mahabhuta* is required to soften the hardness present

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in *Parthiva Dravyas*. *Jala Mahabhuta*, also penetrates into *Parthiva Dravya* and loosens the molecular bonding, thereby accumulating in space present in between molecules. The Jala, which supposed to be used here is *Sheeta Jala* having a consideration that, it improves the *Sheeta Guna* of *Ghrita*. Increased *Sheeta Guna* is the main expected attribute from *Shatadhouta Ghrita* and *Sahasradhouta Ghrita*.

# The quantity of water to be added

"Yaavati Majjati Taavachitodhake Ghriatam Prakshipya Hastena Mardayedh". Arunadatta comments that the water which is going to be added to Ghrita, for the preparation of Sahasradhouta Ghrita should be able to immerse the Ghrita. This can be considered for Shatadhouta Ghrita also. This suggests that there is no specified quantity of water for this preparation and it can be decided based on the quantity of Ghrita used.

#### **Dhouta Karma**

Literal meaning of *Dhouta* is washed, washed off, cleaned, purified etc. Chief technical procedure which is going to employ to *Ghrita* in the preparation of *Shatadhouta Ghrita* and *Sahasradhouta Ghrita* is *Dhouta Karma*. Commentators like Arunadatta, Adamalla used the term like '*Prakshalana*' for *Dhouta*. Arunadatta considered '*Hastena Mardhayet*' in the context of *Sahasradhouta Ghrita*. So *Dhouta Karma* comes under *Mardana Samskara*. This indicates that good pressure should be applied by hand during each washing.

# Pharmacological action of Shatadhouta Ghrita and Sahasradhouta Ghrita

The therapeutic usage of Shata or Sahsaradhouta Ghrita is described under the treatments of certain symptoms in Brahatrayi or Lagutrayi. Ancient Scholars advice the external application of these Ghritas in conditions. various Later author of Vaidhyakashabdhasindhu has highlighted therapeutic properties as 'Vata Pitta Daha Kshata Nasha'. A detail analysis about pharmacological action of Shatadhouta Ghrita and Sahasradhouta Ghrita in Samhitas, reveals that these are mainly useful as

Daha Shamaka which is to be applied topically.

#### DISCUSSION

#### Shatadhouta and Sahsradhouta Ghrita

Though detail descriptions regarding these formulations are very less, all the Ayurvedic scholars have unanimously accepted these formulations for Daha Shamana action. The main pharmaceutical process, which is utilized for the preparation of Shatadhouta Ghrita and Sahasradhouta Ghrita is, Dhouta Karma with water. The vessel which is to be taken for preparation is Kamsya (bronze) Patra. Though the specification regarding this kind of vessel is not available for this preparation, but due to Kushtagna property of Kamsya Patra, it is selected.

# Importance of Dhouta Karma and Jala

The two main objectives of converting *Ghrita* into *Shatadhouta Ghrita* or *Sahasradhouta Ghrita* are.

- To achieve a better pharmaceutical form without the interaction of Agni, for an effective topical application i.e. with ideal consistency.
- Pharmacologically to obtain more Sheeta Guna than Ghrita without adding any Dravya and without the interaction with Agni.

How Shatadhouta Ghrita or Sahasradhouta Ghrita are better with reference to above mentioned objectives can be discussed, if we analyse plain Ghrita with that respect. The main pharmaceutical point to be noted here is, the above mentioned objectives should be attained without Agni Sannikarsha. Ghrita is a typical Dravya due to its special property that, it is solid in room temperature and gets liquefied when it gets warm. This special nature of Ghrita is due to its typical Panchamahabutha combination. i.e. Ghrita is Sheeta, Snigdha and Agneya. So there is a proper balance between Agni Mahabutha and Jala Mahabutha, where in solid state the Sheeta Guna of Jala Mahabuta controls Ghrita and in liquid state, it is by Ushna Guna of Agni Mahabuta. But these Mahabutas never counteract each other in Ghrita. This can be said like, the chemical property of Ghrita may not change if physical nature gets changed.

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With this background let us analyze *Ghrita* with reference to lepa. Here if *Ghrita* is applied externally in the form of a *Sneha Kalpana*, no matter about the consistency or absorbability as *Agni Sannikarsha* was happened and that will help easy penetration of the active principles through the skin. But if *Ghrita* is taken as a base for *Lepana*, where it is going to be mixed with other drugs then, consistency matters a lot. As the *Lepa* should remain for long duration so that the active principles get penetrated through skin. So we may have to add more quantity of *Sukshma Churnas* to achieve an acceptable consistency, as *Ghrita* may not help much for better consistency due to its physical nature. This will cause discomfort in preparation and application of *Lepa* with *Ghrita*.

How a preparation like *Shatadhouta Ghrita* and *Sahasradhouta Ghrita* will resolve this problem. It is prepared by pressure washing of *Ghrita* with water.

Literally *Ghrita* is not soluble in water. Now how this process of washing can be justified. The intention of performing a pressure washing for minimum hundred times may be an answer for that. This kind of process may facilitate the general property of *Jala Mahabhuta* to penetrate into *Parthiva Dravya* and loosens the molecular bonding, thereby accumulating in space present in between molecules. Here there is a big importance for that as the *Sheeta Guna* of *Jala Mahabuta* in *Ghrita* is responsible for the solid consistency of *Ghrita*. So the water which is going to be entered into *Ghrita* by pressure washing may mask the *Agneya Bhava* of *Ghrita* which is responsible for its liquefying nature.

By that *Ghrita* can attain a permanent solid form in *Shatadhouta Ghrita* or *Sahasradhouta Ghrita*. To achieve this property, one or two washing may not be sufficient, and scholars were particular regarding the number, that is minimum hundred times. This method of making *Jala* to enter into *Ghrita* may help to increase the *Sheeta Guna* of *Ghrita*. Now the *Snigdha Guna* of *Ghrita* turns its property towards holding the *Jala* which is entered to it. With the help of this process *Ghrita* achives a better consistency and *Daha Shamaka* property. This in turn helps for easy topical

application and easy mixing of other Dravyas.

#### **CONCLUSION**

Shatadhouta Ghrita and Sahsradhouta Ghrita are formulated to increase the Sheeta Guna of Ghrita. Dhouta is the main pharmaceutical process which is adopted here. It should be a pressure washing with water. The water which is to be added should be able to immerse the Ghrita. Thirty minutes should be considered as time duration for one washing to maintain uniform duration of washing. Here consideration is, Sheeta Jala should be used for The obtained products have consistency for better topical application. Here Ghrita becomes able to hold the Jala, by that Sheeta Guna of increases. Shatadhouta Ghrita Ghrita and Sahsradhouta Ghrita can be considered as type of oil in water kind of emulsion.

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