

Formulation of Shata Dhauta Ghrita: As A Base in Moisturizing Cream

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ABSTRACT:-

Ayurvedic medicine is widely used across the nation, especially in tribal and isolated areas where access to other forms of treatment is limited. Despite not having the complex organizational structure of its contemporary equivalent, it plays a vital role in providing healthcare for a substantial proportion of India's population. Shatdhautaghrita is a traditional Ayurvedic preparation made from clarified butter fat (cow ghee) that has been washed 100 times in water. Through this procedure, ghee becomes a silky, nourishing, cooling, and soft unguent that can be used as a conventional skin cream for anti-wrinkles, antioxidants, and moisturizing. Handcrafted emollient Shatdhautaghrita (SDG) does wonders for injured skin. The author of this assessment mostly addressed the Shatdhautaghrita preparation method, its mechanism, commercial situation, necessity and advantage of SDG formulation. The review states that Shat dhautaghrita may be useful as a topical treatment for skin conditions, but that it has to be assessed in accordance with current scientific guidelines. If we add a herbal medication or phytoconstituent to the SDG, it functions as a great base for cream and becomes a potentially useful tool for the creation of herbal cream.

Keywords:-ShataDhautaGhrita, Ayurveda, Anti-inflammatory

I. INTRODUCTIONS

The process known as "samskara" is used in pharmaceuticals to enhance the potency and bioavailability of the medications by inducing their therapeutic characteristics. GunantaradhanamUchyate is the name of Samskaro. The processes through which attributes such as Rasa, Guna, Virya, and Vipaka go through "Gunantaradhaanam," or the conversion of Sthoola Guna (macro form) into Sukshma Guna (micro form) there is a change in both the chemical and physical qualities inside the Dravya (Substance). An Ayurvedic preparation known as shatadhoutaghrita is frequently recommended to

treat skin issues. As suggested by the name, it is made by 100 times washing Ghee in water. Through this process, ghee becomes a smooth, nourishing, cooling, and soft ointment that can be used as a conventional moisturiser and anti-wrinkle skin cream. In order to prepare Shata-dhauta-Ghrita, the Ghrita is washed in water until it becomes warm. The warm water is then removed, fresh water is added, and the process is repeated one hundred times. One further reference to the preparation of Shata-dhauta-ghrita is provided by VaidyakShabdaSindukara. It involves heating the ghrita and pouring it into Sita Jala (cold water) a hundred times. This is an uncommon and unpopular strategy in the profession of pharmaceuticals. Thus, an effort was undertaken to evaluate the pharmaceutical preparation of ShatadhoutaGhrita using the two approaches and comprehend the pharmacological modifications.

Some of its ingredients, such as liquid paraffin, stearic acid, and beeswax, are inert, meaning they don't have any medicinal properties. Cow ghee, an Ayurvedic foundation, is said to have a number of benefits. The stratum corneum's water content and the lipids on the skin's surface are crucially balanced to preserve the skin's appearance and functionality. Since the skin is the body's outermost covering, it is constantly exposed to a variety of environmental stimuli. This equilibrium may be upset by both endogenous and external influences. Furthermore, the lipids on the skin's surface can be removed by frequently using cleansers, detergents, and topical irritants like alcohol and hot water. Several kinds of skin issues were caused by a disruption of the skin barrier.

The study assessed the physicochemical properties of the Ayurvedic preparation and looked into any changes that happened during washing. An attempt is made to ascertain the reasoning behind the 100-time water washing of cow ghee. Shata-dhauta-ghrita lacks the distinctive smell and granular, oily consistency of cow ghee, making it a homogenous, smooth, non-oily product that is easier to administer and improves patient

compliance. Because shata– dhauta-ghrita has a neutral pH and doesn't irritate the skin like ghee does, it is considered healthy. Shata-dhauta-ghrita's smaller particle size makes the product non-granular, non-sticky, and homogenous, which makes it simple to apply to the skin and may even increase how quickly something absorbs through the skin. Washing produces a homogenous oil-in-water emulsion that is more suitable for topical treatments due to its improved consistency and viscosity. In India, clarified butter is called as Ghrita. Ghrita is the primary type of cooking oil used in all regional cuisines of India. It is also used medicinally and is a component of several Hindu religious rituals. As a result, Ghrita has enjoyed a long history of being well valued for a variety of reasons. Thus, Ghrita has been so highly regarded for so long for so many things. When we say Ghrita, we mostly mean Goghrita (cow ghee).

- **Aim and objective**

- **Aim**

1. To prepare anti-aging, ant-wrinkle Ayurvedic Moisturiser using cow ghee.

- **Objective**

1. pacifying
2. dryness,
3. hyper-pigmentation
4. for heaty pitta skin at the same time,
5. cooling the skin and is excellent for acne,
6. burns and closed wounds.

- **Pharmacological Action of GHRITA**

ketone bodies, which aid in shielding the body from oxidative harm. Vitamin A promotes eyeball hydration, preserves the body's epithelial tissue, and guards against blindness. The organism grows properly with the support of essential fatty acids. Higher than the average human body temperature, 35°C is the melting point of ghrita. With the highest rate of absorption among all oils and fats, its digestibility coefficient is 96%. Due to their combination with Ghrita, the active components are readily absorbed and digested. The lipophilic action of ghrita makes it easier to move to a target organ and then distribute the substance inside of cells because lipid is found in cell membranes. The formulation is delivered to the mitochondrial microsome and nuclear membrane more easily by Ghrita's lipophilic activity.(4)



Fig no.1 – Shata-dhauta-Ghrita Action on Skin

• **Shata-dhauta Ghrita preparation method: -**

The entire process was split into two parts.

Method A: ShatadhautaGhrita preparation using the Sagni method

Method B: Using the Niragni method, prepare ShatadhautaGhrita.

1) **Method A :-**

To make Mandagni, the desired quantity of Ghrita (50 g) was placed in a steel vessel and heated over a gas Se at a distance of 4 cm. The ghrita was placed into 22°C cold water after it melted and began to boil. After cooling down, Ghrita formed a layer on top of the water. Using a spoon or spatula, Ghrita was gathered once it had cooled down on its own. A carefully removed spoon was found with some watery portion attached. Once more, a gentle heat source (Mandagni) was applied to the same Ghrita until the water began to splash. Once more, it was added to cold water at a temperature of 22.0°C. Ten times, this method was carried out.

2) **Method B:-**

Using a steel jar, the desired amount of ghrita (50g) was added. The desired volume of cold water (100 ml) was added until the Ghrita was completely submerged in the liquid. The Ghrita's water temperature was recorded. It was thoroughly rubbed using a steel wool.glass under some pressure until the water's temperature started to rise. Water was removed and monitored after the temperature was raised. Once more, more water was added, and the identical procedure was carried out ten times. Both approaches are simple to use for preparing ShatadhautaGhrita. However, from a pharmacological perspective, approach A (the heating approach) yields less, consumes more time, and necessitates a heating process rather than way B (the non-heating way). It is necessary to compare the constituent changes in the Ghrita that occur with the two techniques using analytical research. A clinical trial can also be used extensively to confirm the safety and effectiveness of ShatadhautaGhrita made using both techniques.(5)



Fig:2 Base Preparation

II. **MATERIALS AND METHODS:**

1. **Refractive index:**

The driving knob was turned such that the boundary line contacts the separatrix precisely in the middle after putting a drop of water on the prism. took note of the text. Refractive index of distilled water at 25°C is 1.3325. The inaccuracy of the instrument can be found by comparing the reading to 1.3325. The correction is plus (+) if the reading is less than 1.3325, and the mistake is minus (-). The error is plus (+) and the adjustment is minus (-) if the reading is higher. An oil sample of one drop is used to calculate the refractive index. The measured reading should be adjusted, if necessary, to obtain the precise refractive index. The test samples were tested at 28°C for their refractive index.

2. **Specific gravity:**

Shaken with acetone and then ether, a specific gravity bottle was cleaned. Bottle was dried, and weight was recorded. reached room temperature by cooling the sample solution. After carefully adding the test liquid to the specific gravity bottle, inserting the stopper, and removing any excess liquid. observed the weight. used distilled water instead of the sample solution and repeated the process.

3. **Rancidity test:**

1 ml of melted fat, 1 ml of concentrated hydrogen chloride and 1 ml of a 1% phloroglucinol solution in diethyl ether were combined and then well mixed with the fat acid mixture. If the fat is pink, it is slightly oxidized; if it is red, it is clearly oxidized.

4. Determination of Acid value:

10 grams of the sample were weighed in a conical flask. added 50 ml of an acid-free alcohol-ether mixture (25 + 25 ml), which had been titrated against 0.1N potassium hydroxide solution after being neutralized by adding 1 ml of phenolphthalein solution. The end result was the development of a light pink color that lasted for 15 seconds. conducted the experiment twice to obtain concordant results

5. Determination of Saponification value:

A tared 250 ml round-bottom flask containing around 2g of the material was weighed. 25 milliliters of the booze After adding a KOH solution, a reflux condenser was connected. After one hour of boiling on a water bath, the contents of the flask were frequently turned. One milliliter of phenolphthalein solution was added, and an excess of alkali was titrated with 0.5N HCl once the flask had cooled. The amount of milliliters (ml) needed was indicated. The identical reagent quantities and

procedures were used for the second experiment, but the drug was not included. The required milliliters (b) were noted. Concordant values were obtained by repeating the experiment

Synonym – Lavanda, foreign oil

Botanical Name – *Lavandula angustifolia*

Kingdom – Plantae

Order – LamialesBromhead

Genus – *Lavandula* L.

Species – *Lavandula angustifolia* Mill.

Biological Source-

Levendar oil is extracted form the flowers of *Lavandula officinalis*.

Family- Labiatae

Chemical Constituent- **drainage** Lavender oil contains pinene,limonene,cineole,camphor and linalool

Uses-

- 1) Reduce Anxient
- 2)Wound healing



Fig:3 Uses of Lavender Oil

• ShataDhautaGhrita’s advantages:-

-ShataDhautaGhrita has incredible potency in treating skin damage resulting from exposure to sunlight and pollutants.

-After that, this silky cream is combined with earthy-fragranced ayurvedic herbs such as Avabhasini, Lohita, Shweta, Tamra, Vedinii, Rohini, and Mamsadhera, which leave your skin and hair feeling naturally nourished and mended.

• Genuine and Authentic Aroma

ShataDhautaGhrita occasionally has a faint, insignificant ghee aroma, but it goes away right away after application. These substances are all derived from organic resources and are entirely natural. The SDG’s genuine, unadulterated scent is what distinguishes it as pure. It is quite pleasant to smell the earthy, natural scent that radiates from SDG. ShataDhautaGhrita’s advantages ShataDhautaGhrita has incredible healing power to restore skin damaged by pollution and sun exposure. Avabhasini, Lohita, Shweta, Tamra,

Vedini, Rohini, Mamsadhera, and other ayurvedic herbs are combined with this silky cream, along with an earthy scent, to leave your skin and hair feeling organically nourished and mended. All SDGs have an average shelf life of 18 months, after

which the beneficial oils may start to lose their effectiveness. To extend its shelf life, it must be kept refrigerated and stored away from moisture.



Fig: 4 Formulation of Cream

• **Evaluation parameter**

1) Organoleptic Properties

Parameter	Go ghee	SDG
Colour	Golden Yellow	White
Odour	Characteristics, pleasant	Odorless
Taste	Characteristics	Tastless
Texture	Granular, Oily	Smooth, Non oily

2) Physical Properties

Parameter	Go ghee	SDG
Moisture Content (%)	0.27	0.8
pH	4.6	5.9
Particle Size	179.02	59.99
Viscosity	8000	9770
Copper content	0.13	1.2

3) Chemical Properties

PARAMETER	Go ghee	SDG
Acid value	0.84	0.11
Saponification value	234.26	25.96

- **SHATADHATU-GHRITA**

ShatdhautaGhrita A pharmaceuticals technique called "samskara" increases the potency and bioavailability of the medications by inducing therapeutic characteristics. GunantaradhanamUchyate is the name of Samskaro. Through the process of "Gunantaradhaanam," or the transformation of Sthoola Guna (macro form) into Sukshma Guna (micro form), qualities such as Rasa, Guna, Virya, and Vipaka undergo changes in both their chemical and physical forms (Substance). Skin conditions are often treated using an Ayurvedic treatment called ShatadhoutaGhrita. It is manufactured, as the name implies, by washing ghee 100 times in water. Ghee undergoes this procedure to create a smooth, nourishing, cooling, and soft ointment that can be used as a conventional moisturizer and anti-wrinkle skin cream. Making ShatadhautaGhrita involves rinsing the Ghrita with water until the adding new water and discarding the heated water after a hundred iterations of the process until the water is warm. Another mention of the process of making ShatadhoutaGhrita by Santapya (heating) and Nirvapana (pouring) in Sita Jala (cold water) 100 times can be found in VaidyakShabdaSindukara.

Shat dhautghrita, or "100 times washed ghee," is a traditional Ayurvedic preparation made of clarified butter fat, also referred to as cow ghee. Using this procedure, ghee becomes a silky, nourishing, cooling, and soft unguent that can be used as a face cream or as a typical moisturizing agent. Because ghee penetrates and feeds all seven layers of tissue, handcrafted shat dhautaghrita is a good emollient for injured skin. A specific but very simple ghee preparation is utilized in numerous skin diseases, such as burns, wound scars, skin marks, burning feeling, herpes.

- **Future aspect**

The ancient science of life known as Ayurveda has a long history, and its fundamental ideas might still hold true today. There has long been a recognition of the need for Ayurvedic medicine to be evaluated scientifically. But the fundamental element of all sciences is the ongoing pursuit of new information through investigation, advancement, and innovative applications. Research on the efficacy, safety, and quality of

Ayurvedic medicines and treatments should be done continuously. It's crucial to have methodical credentials and analyze clinical practice critically. Although shatdhautaghrita, or bathing ghee 100 times, is a common Ayurvedic treatment, its use in contemporary therapy has not received much attention. Therefore, the purpose of this study was to investigate the potential of Shatdhautaghrita as a base for topical medication administration.

In the future, it might be utilized as a substitute for contemporary topical ointments. Additionally, if we combine phytoconstituents or herbal medications with Shatdhautaghrita, we might be able to create an efficient herbal formulation. While scientific research is necessary to confirm biological activity, ensure safety, and set guidelines.

III. CONCLUSION

Based on the current analysis, it can be inferred that cow ghee undergoes modifications during its hundred-washing process, which results in the creation of Shatadhautaghrita, an exquisite and appropriate product for topical application. Shatadhautaghrita is utilized in topical products as a natural way to improve penetration. To prepare it, wash 100 times with water and cow ghee. Patient compliance is improved by this smooth, homogenous, non-greasy solution, which is also easier to apply. Shatadhautaghrita is proven to be helpful by chemical analysis and the Samskara siddhanta of Ayurveda. It functions well as a cooling agent, emollient, moisturizer, and scar healer. Although shatdhautaghrita is a well-liked Ayurvedic drug, little research has been done on its application in contemporary medicine. This investigation looked into Shatdhautaghrita's potential as a foundation for topical medication delivery. In the future, Shatdhautaghrita may prove to be a successful herbal formulation in substitution of contemporary topical ointments if we combine herbal medication or phytoconstituent with it.

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