

A Scholarly Appraisal on *Saindhavadi Ghrita* in Management of *Apasmara*

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Abstract

Introduction: *Apasmara* is the disease in which the *Smaranshakti* (Recollection) gets vitiated/affected. It is a disease due to vitiation *Sharirik* doshas as well as *Manasik* doshas. Most of the clinical presentation of *Apasmara* resembles with epilepsy/seizure disorder. Various pharmaceutical preparations, including Ghee or oil (*Snehakalpana*), are mentioned in Ayurveda to combat *Apasmara*, the '*Ghrita Kalpana*' is one of these. In addition to the adverse reactions of synthetic antiepileptic drugs (AEDs), several '*Ghrita Kalpana*' are used to treat seizures; it showed favourable results and aids in maintaining overall health. '*Saindhavadhi Ghrita*' is a proprietary ayurvedic formulation advised to aid in the management of several kinds of psychological conditions, especially in *Apasmara* mentioned in *Yogaratanakara*.

Aim: To rationalize the use of *Saindhavadhi Ghrita* in the management of *Apasmara* (Epilepsy).

Methodology: Critical systematic review on efficacy of *Saindhavadhi Ghrita* in *Apasmara* based on the action of each ingredient, extensive literature search in both print and electronic media.

Result: Data will be critically analysed based on probable mode of action, all the ingredients of *Saindhavadhi Ghrita* having neuroprotective as well as enhances the *Medhya* activity, so it will be effective in the management of *Apasmara*.

Discussion: '*Smriti-Naasha* (memory loss)' is the primary cause of the disease *Apasmara*. By enhancing *Buddhi*, *Smriti*, and correcting *Mana's* disturbance, '*Saindhavadhi Ghrita*' have a specific impact on mental health.

Keywords: *Apasmara*; *Ghrita Kalpana*; *Saindhavadhi Ghrita*

Introduction

Acharya Charaka describes *Apasmara* (epilepsy) as *Apagama* (deterioration) of *Smriti* (retention) associated with *Bibhatsa Chesta* (seizers) because to the insanity of *Dhi* and *Sattva* [1]. *Vatadi* has three *Sharirik Doshas* and two *Mansik Doshas* (*Raja* and *Tama*), which are the vitiate *Doshas* associated with the illness. *Apasmara's* main components are mindfulness or memory impedance. Despite being classified as a *Manasroga* (psychological disorder) most of the time, it is not just a *Manasroga*. Among the illnesses that affect *Manas* and *Sharira* is *Apasmara*.

Ayurveda gave descriptions of numerous medication compositions, such as *Ghrita Kalpana* (boiled ghee mixed with various medicinal plants) and Ghee/Oil (*Snehakalpana*), to combat *Apasmara*. In addition to the negative effects of synthetic antiepileptic medications (AEDs), several *Ghrita Kalpana* are used to treat seizures; they have demonstrated promising outcomes and help maintain overall health. Lack of seizure control while receiving the best care possible with traditional medication is known as intractable or refractory epilepsy.

Saindhavadi Ghrita is mentioned in *Yogaratanakara Apasmara chikitsa* having only 5 ingredients, are easily available drugs. All the ingredients of *Saindhavadi Ghrita* are neuroprotective as well as enhances the *Medhya* activity, so it will be effective in the management of *Apasmara*. The cost of *Ghrita* will also be viable, as the pharmaceutical processing of it is also easy.

Aim of the Study

To rationalize the use of *Saindhavadi Ghrita* in the management of *Apasmara* (Epilepsy).

Methodology and Results

Etiopathology of Apasmara [2]

Apasmara is a disorder that affects mental abilities such as cognition, memory/consciousness, and the purest mental quality. Improper and unclean diet is said to create the foundation for illness.

In cases of psychiatric disorders such as *Apasmara*, the neuropathology may be impacted by dietary variables that act on the gut-brain axis. This person experiences *Apasmara* when they are in a bad scenario and are experiencing negative emotions such as fear, anger, passion, worry, grief, and anxiety. The *Manovaha Srotas* (functional system of mind) is composed of the heart, which is the centre of consciousness and emotional intelligence, and the brain, which is the centre of memory and logical intelligence. For the mind to function normally, these two centres must coordinate. In the event that this is affected, mental illnesses result. *Dosha* blockage in the heart-brain connection, channels, and mind is removed by adherence to the powerful *Apasmara* management concept.

Saindhavadi Ghrita: As a potent antiepileptic

Saindhavadi Ghrita is mentioned in *yoga Ratnakara Apasmara Chikitsa*. There are 5 drugs used in the preparation *Saindhavadi Ghrita*. It contains *Saindhava Lavana*, *Hingu*, *Pippali*, *Go-Ghrita* and *Go-Mutra*. The ingredients have been repeatedly mentioned for its action over psychological disorder due to its inherent properties like *Tridoshahara*, *Vatahara* and *Medhya* effect. *Ghrita* is frequently used in the management of psychic disorders and appears to enhance mental abilities. *Ghrita* is considered as the best “*Snehadravya*” Because of its unique quality, namely ‘*Samskarsyaanuvartanam*’ (the continuity of refinement), which implies that *Ghrita* carries the properties of a drug without compromising its own intrinsic properties [3].

सैन्धवार्थ घृतम्

घृतं सैन्धवहिङ्गभ्यां कणाभिरतच्चतुर्गुणैः । मुत्रैःसिद्धमपस्मारहृद ग्रह ग्राम नाशनम् ॥ [4]

Ingredients	Latin Name	Part Used	Quantity
<i>Saindhava Lavana</i>	Sodii chloridum		1 part
<i>Hingu</i>	<i>Ferula foetida</i> Regel	Resin	
<i>Pippali</i>	<i>Piper longum</i> Linn	Fruit	
<i>Go Ghrita</i>	Cow’s Ghee		4 parts
<i>Go Mutra</i>	Cow’s urine		8 parts

Table 1: Ingredients of Saindhavadi Ghrita.

S.no	Name of the drugs	Latin name	Rasa	Guna	Virya	Vipaka	Dosha Karma	Part used
	Saindhava Lavana	Sodii chloridium	Lavana	Laghu, Snigdha	Sita	Madhura	Tridosahara	
	Hingu	Ferula foetida Regel	Katu	Laghu, Tikshna	Ushna	Katu	Vata kapha hara	Resin
	Pippali	Piper longum Linn.	Katu	Laghu, Ruksha	Anushna	Madhura	Vata kapha hara, Medhya	Fruit
	Go Ghrita	Cows' ghee	Madhura	Guru, Snigdha	Sita	Madhura	Vata pitta hara, Medhya	
	Go Mutra	Cows' urine	Katu Lavana	Tikshan, Laghu	Ushna	Katu	Vata kapha hara	

Table 2: Ayurvedic properties and pharmacological actions of Saindhavadi Ghrita [5-7].

Research data showed action of ingredients in the management of epilepsy

Saindhava Lavana - Sodii chloridium

The key component, comprising up to 98%, is sodium chloride. Many valuable minerals and elements are present in it. Along with these elements, it also includes iron, zinc, strontium, manganese, chromium, lithium, magnesium, phosphorus, and potassium. Several brain injury models, both *in vitro* and *in vivo*, have demonstrated the neuroprotective effects of sodium lactate infusion. Hypertonic solutions (containing sodium chloride or sodium lactate) may prevent brain oedema and elevations of raised intracranial pressure (ICP) following traumatic brain injury (TBI) [8]. Mg supplementation needs to be considered in the overall management of people with refractory epilepsy [9]. Research suggests that zinc administration may be helpful as an optimizing strategy for epilepsy [10].

Hingu- Ferula foetida Regel

Terpenoids compounds found in asafoetida are helpful to reduce the occurrence of the seizure. studies showed that asafoetida could prevent seizure in both chemical and electrical kindling model [11]. According to both traditional applications and some recent studies, *F. asafoetida* might have particular impacts on how the nervous system functions, especially in terms of neuroprotective and nerve-stimulating behaviours. Treatment of glutamate-induced cell damage in initial culture of rat cerebellar granule neurons with *F. asafoetida* extract [12]. The ability of *F. asafoetida* to improve memory is attributed to its antioxidant and acetylcholinesterase-inhibiting qualities. *F. asafoetida* can be incorporated into a diet and used as a supplement to the present anti-dementia treatments [13].

Pippali-Piper longum Linn.

A middle cerebral artery blockage model in rats was used to investigate the potential therapeutic effect of neuron injury following apoplexy in the dichloromethane fraction (DF) of *P. longum* and *P. nigrum*. The rat model was given the extract orally for a period of 14 days. In addition to calmodin (CaM), phosphorylated CaMK II (p-CaMK II), PSD 95, and N-methyl D-aspartate receptor subtype 2B (NR2B), the model also has a strong neuroprotective effect [14].

Go Ghrita-cows' ghee

Acharyas describe *Chaturvidha Sneha* in Ayurvedic literature. They are *Majja*, *Ghrita*, *Taila*, and *Vasa*. Here, *Ghrita* denotes ghee, *Taila* oil, *Vasa* bodily fat, and *Majja* bone marrow. Out of all these, *Ghrita* is the most significant since it is utilised in numerous therapeutic

preparations and has additional medicinal effects because of its *Samskarananuvartiguna*. Ghrita is the primary component of *Sneha-paka*. *Go - Ghrita* appears as a granular, oily liquid or semi-solid that is either white or pale yellow in colour.

Go Ghrita works well as a medicine delivery, transportation, and absorption medium. Physically: *Ghrita* is a lipid by nature. This characteristic allows it to pass through the blood-brain barrier quickly, improving the viability of drugs for the brain. It might make it easier for drugs to enter the targeted cell without obstruction and improve memory. *Go Ghrita* can enter the body's lipid-based cell membranes by forming bonds with lipid-soluble nutrients and herbs. It does this by transporting the active ingredients into the cells, thereby making some herbs more potent. Nutrients that need to pass the cell membrane to be absorbed are also carried by it. Nutritional lability and tissue perfusion are two factors that often determine a drug's potency and efficiency.

A, D, E, and K vitamins are included in ghee. Vitamins A and E, which are anti-oxidants, help shield the body and brain from oxidative damage. determined that the majority of the ingredients exhibit anticonvulsant properties via a variety of mechanisms [15]. Additionally, butyric acid a short-chain fatty acid that is beneficial to our gut is abundant in cow ghee. Butyric acid helps prevent and treat Alzheimer's disease and has antiviral and anti-cancer properties [16].

Go Mutra-Cows' urine

An essential component of Indian tradition is *Gomutra*. In addition to being sacred, it has several significant therapeutic applications. *Ashta Mutra*, or the eight forms of urine, are detailed in classical Ayurvedic treatises such as the *Charaka*, *Sushruta*, and *Vagbhata Samhita*, along with their characteristics, applications, and formulations. One of them is cow poop. One of the five ingredients of *Panchagavya* that comes from cows is cow urine (urine, milk, ghee, curd, and dung). Treatment based on cows is known as *Panchagavya Chikitsa*. *Gomutra* has neuroprotective and memory-improving properties that can improve brain function. Cow's urine may be useful in the therapeutic field for the treatment of a variety of illnesses implicating oxidative stress, as oxidative stress resulting from excessive free-radical emission is likely linked in the beginning and progression of epilepsy [17].

Mode of action of Saindhavadi Ghrita on Apasmara

All of the ingredients in the medication *Saindhavadi Ghrita*, including *Saindhava Lavana*, *Hingu*, *Pippali*, *Gomutra*, and *Go-Ghrita* [18], are essentially therapeutic characteristics like *Brimhana*, *Vrishya*, *Medhya*, and *Vaka Visudhikara*, as well as *vata-pitta shamaka*. The review medication "*Saindhavadi Ghrita*" calms the mind and supports the body by inducing *Dhee*, *Dhriti*, and *Smriti*. It also contains *Madhura Rasa*, *Snigdha Guna*, *Sheeta Virya*, and *Madhura Vipaka*. The five senses, Brain, Medha, and *ojas* are all supported and advanced by *Madhura Rasa*. With its *Medhya* property, *Saindhavadi Ghrita* offers the wonderful nature of *Sadhaka Pitta*, who is in charge of comprehension and data processing. It balances the agitated *Rajas* and *Tamas Gunas* and raises the *Sattva Guna*. By enhancing the process of transformation and assimilation, it works on *Agni*, particularly the *Bhutagni* that supplies nourishment to brain cells. It facilitates *Srotas* Clearance, the body's microcirculatory channel that improves nutrient bioavailability and tissue perfusion. Therefore, *Medhya Rasayana* may aid in enhancing the nutritional status of the nervous system to enhance *Medha's* functionality.

Discussion

Apasmara is a condition caused basically by '*Smriti-Naasha* (memory loss)'. Each component in the drug *Saindhavadi Ghrita* exhibits a neuroprotective property, by elevating *Buddhi*, *Smriti*, and *Manas* and regulating the *Tama* and *Raja* disturbances, this has a certain impact on mental wellbeing. They act at the level of *Rasa*, they do this by enhancing and stimulating *Agni's* function, enhancing *Rasa* circulation through the opening and cleaning of the microchannel, and enhancing *Medhya* function.

Conclusion

'*Saindhavadi Ghrita*' ingredients have already proven their neuroprotective action by preventing seizures. In view of their ayurvedic properties, *Saindhavadi Ghrita* also functions as a memory enhancer through its "*Prabhava*" effect. Due to its *Rasa*, *Virya*, and *Vipaka*, it also acts as *Medhya* and *Balya*. Restoring *Dhriti* and *Smriti* and balancing the disrupted *Raja* and *Tama* by getting rid of *Srotorodha* relieves the symptoms of *Apasmara*, such as *Smriti naash* (loss of memory), *Vibithaschesta* (abnormal movements), etc. Reviewing these facts may lead to the conclusion that *Saindhavadi Ghrita* will be effective in the management of *Apasmara*.

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