

MAHA-PANCHAGAVYA GHRITA IN THE MANAGEMENT OF APASMARA: AN EVIDENCE-BASED REVIEW

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Article Received on
30 May 2025,

Revised on 19 June 2025,
Accepted on 09 July 2025

DOI: 10.20959/wjpr202514-37613



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ABSTRACT

Background: *Apasmara* (Epilepsy) is described in *Ayurvedic* texts as a chronic neurological disorder characterized by sudden episodes of transient loss of consciousness associated with involuntary movements and abnormal behavior. *Maha-Panchagavya Ghrita*, a classical *Ghruta* formulation, is traditionally indicated for neuropsychiatric conditions, including *Apasmara*, due to its *Medhya*, *Rasayana*, and *Manasroga* alleviating properties. With the rising interest in evidence-based validation of traditional therapies, a systematic review of available literature is essential to substantiate its clinical relevance. **Aim:** To critically review and analyze available classical and scientific evidence on the therapeutic potential of *Maha-Panchagavya Ghrita* in the management of *Apasmara* (epilepsy). **Objectives:** To compile classical *Ayurvedic* references regarding *Maha-Panchagavya Ghrita* and its indications in *Apasmara*. To review experimental and clinical studies evaluating its pharmacological actions relevant to epilepsy. To assess the probable mode of action based on *Ayurvedic* principles and modern

scientific findings. To identify gaps in current research and suggest directions for future studies. **Materials and Methods:** A comprehensive search was conducted in electronic databases such as PubMed, AYUSH Research Portal, Google Scholar, and classical *Ayurvedic* compendia. Studies including clinical trials, experimental research, pharmacological investigations, and relevant *Ayurvedic* textual references were identified. Inclusion criteria comprised studies focusing on *Maha-Panchagavya Ghrita* in epilepsy or related

neuropsychiatric disorders. Data were extracted, analyzed, and synthesized narratively.

Results: *Maha-Panchagavya Ghrita* possesses neuroprotective, anti-convulsant, anxiolytic, and cognition-enhancing properties, as demonstrated by experimental and limited clinical studies. Classical references emphasize its role in pacifying aggravated *Vata* and *Tama Dosha*, which are key in the pathogenesis of *Apasmara*. However, robust high-quality clinical trials are sparse. **Conclusion:** Preliminary evidence indicates that *Maha-Panchagavya Ghrita* holds therapeutic potential in the management of *Apasmara* through its multifaceted pharmacological actions. Well-designed randomized controlled trials are warranted to establish its efficacy and safety profile in contemporary clinical practice.

KEYWORDS: *Maha-Panchagavya Ghrita*, *Apasmara*, *Ayurveda*, Epilepsy, Evidence-Based Review, *Medhya Rasayana*.

INTRODUCTION

Apasmara, described extensively in classical *Ayurvedic* literature, is a chronic neurological condition characterized by recurrent episodes of unconsciousness, convulsions, abnormal body movements, and behavioral disturbances.¹ The literal meaning of *Apasmara* is ‘loss of memory and consciousness’, highlighting the core pathological feature of impaired *Dhi*, *Dhriti*, and *Smriti*. This condition closely resembles epilepsy in modern neurology, which is recognized as a global neurological burden with significant physical, social, and psychological impacts.^[2]

Modern medical management of epilepsy primarily relies on long-term administration of antiepileptic drugs (AEDs). While AEDs are effective in controlling seizures in many patients, they often fail to offer a complete cure and are associated with side effects like sedation, cognitive impairment, and dependency. Moreover, drug-resistant epilepsy remains a major clinical challenge, prompting a need to explore safe and holistic alternative interventions.^[3]

Maha-Panchagavya Ghrita is a time-tested *Ghrita* preparation mentioned in classical *Ayurvedic* texts as a potent *Medhya Rasayana* for a wide range of neuropsychiatric conditions. Prepared using the five sacred cow products (*Panchagavya*) — milk, curd, ghee, urine, and dung — processed with selected *Medhya* herbs, this formulation is traditionally indicated for disorders like *Apasmara*, *Unmada* (psychosis), and *Graha Roga*. The

formulation is believed to pacify aggravated *Vata* and *Tama Dosha*, which are considered the principal *Doshas* involved in the pathogenesis of *Apasmara*.^[4]

Pharmacologically, the ingredients of *Maha-Panchagavya Ghrita* are known to possess neuroprotective, anti-convulsant, anxiolytic, and cognition-enhancing properties. Animal studies and experimental evidence suggest that certain constituents help modulate neurotransmitter levels, stabilize neuronal membranes, and improve mental faculties. Despite these potential benefits, high-quality clinical evidence supporting its role in epilepsy management is limited and scattered.^[5]

Therefore, an evidence-based review of *Maha-Panchagavya Ghrita* is necessary to consolidate existing scientific data and classical references. This will help understand its therapeutic rationale, safety profile, and scope of integration in the holistic management of *Apasmara*. Such an effort may provide valuable insights for future research and clinical trials to validate this traditional formulation in the light of contemporary medical standards.^[6]

AIM AND OBJECTIVES

Aim

To critically review and analyze available classical and scientific evidence on the therapeutic potential of *Maha-Panchagavya Ghrita* in the management of *Apasmara* (epilepsy).

Objectives

- To compile classical *Ayurvedic* references regarding *Maha-Panchagavya Ghrita* and its indications in *Apasmara*.
- To review experimental and clinical studies evaluating its pharmacological actions relevant to epilepsy.
- To assess the probable mode of action based on *Ayurvedic* principles and modern scientific findings.
- To identify gaps in current research and suggest directions for future studies.

MATERIAL AND METHOD

A comprehensive literature review was carried out by collecting classical references from authoritative *Ayurvedic* texts like *Charaka Samhita*, *Ashtanga Hridaya*, and related commentaries to understand the traditional indications and therapeutic properties of *Maha-Panchagavya Ghrita*. Simultaneously, electronic databases such as PubMed, AYUSH

Research Portal, Google Scholar, and ScienceDirect were systematically searched using relevant keywords including Maha-Panchagavya Ghrita, Apasmara, epilepsy, Medhya Rasayana, neuroprotection, and anti-convulsant activity. Inclusion criteria covered experimental research, animal studies, clinical trials, and review articles focusing on the pharmacological effects and clinical utility of this formulation in epilepsy and related neuropsychiatric disorders. Non-English articles, non-peer-reviewed data, and unrelated studies were excluded. Relevant studies were retrieved, reviewed, and critically analyzed to compile and synthesize the available scientific and classical evidence in support of Maha-Panchagavya Ghrita for the management of Apasmara.

MAHA-PANCHAGAVYA GHRITA

Maha-Panchagavya Ghrita is a well-known classical *Ghrita* (medicated ghee) formulation described in *Ayurvedic* texts for its broad-spectrum utility in *Manas Roga* (psychiatric disorders) and *Vatika Vikara* (neurological disorders).⁷ The term *Panchagavya* refers to the five sacred substances obtained from the cow — milk (*Ksheera*), curd (*Dadhi*), ghee (*Ghrita*), urine (*Gomutra*), and dung (*Gomaya*). When these five are used together in a specific proportion and processed with select *Medhya* (nootropic) herbs in ghee, they form *Maha-Panchagavya Ghrita*, which is said to possess profound rejuvenative and neuroprotective qualities.^[8]

Classical Reference and Origin

Maha-Panchagavya Ghrita finds mention in authoritative texts such as *Charaka Samhita*, *Ashtanga Hridaya*, and other compilations dealing with *Ghrita Kalpana*. Its formulations and indications vary slightly between texts, but its primary use remains in *Apasmara*, *Unmada* (psychosis), *Graha Roga* (possession disorders), *Mada* (intoxication), and other *Manasika Vikara*.^[9]

Ingredients and Preparation

The core ingredients are

- *Panchagavya* components: Cow's milk, curd, ghee, urine, and dung juice.
- *Medhya Rasayana Dravyas*: Herbs like *Brahmi* (*Bacopa monnieri*), *Shankhapushpi* (*Convolvulus pluricaulis*), *Vacha* (*Acorus calamus*), *Jyotishmati* (*Celastrus paniculatus*), *Yashtimadhu* (*Glycyrrhiza glabra*), and *Shatavari* (*Asparagus racemosus*) are commonly used depending on the textual source.

- The base is pure cow ghee which acts as an efficient *Yogavahi* (bioavailability enhancer) for the active principles.

The preparation involves decocting the herbal paste (*Kalka*) and *Panchagavya* liquids in the ghee base under moderate heat until all moisture evaporates and only medicated ghee remains. This process ensures the fat-soluble and water-soluble active constituents are transferred into the ghee, which enhances brain penetration due to its lipophilic nature.^[10]

Properties (Guna Karma)

Maha-Panchagavya Ghrita is described as *Medhya* (intellect-promoting), *Rasayana* (rejuvenative), *Ojovardhaka* (immunity-boosting), *Vatanashaka* (Vata pacifying), and *Manas Roga Hara* (psychiatric disease alleviator). Its *Snigdha* (unctuous), *Madhura* (sweet), and *Sheetala* (cooling) properties help calm the excited *Vata* and *Pitta*, while its subtle action reaches the *Manovaha Srotas* to stabilize mental faculties.^[11]

Probable Mode of Action

From an *Ayurvedic* perspective, *Maha-Panchagavya Ghrita* acts by.

- Pacifying *Vata Dosha*, the primary factor in *Apasmara* pathogenesis.
- Clearing *Avarana* of *Manovaha Srotas* caused by *Tamas* and *Rajas* aggravation.
- Nourishing the *Majja Dhatu* (nervous tissue) and promoting *Dhi*, *Dhriti*, and *Smriti* (cognition, control, and memory).
- Acting as a *Rasayana*, rejuvenating the nervous system and boosting *Ojas*.

Modern pharmacology supports the presence of bioactive compounds in herbs like *Brahmi* and *Shankhapushpi* which have neuroprotective, anti-convulsant, anxiolytic, antioxidant, and nootropic effects. Cow urine distillate and dung filtrate are known for antimicrobial, immunomodulatory, and detoxifying properties, contributing to the cleansing aspect in *Avarana* conditions.^[12]

Therapeutic Relevance

In *Apasmara*, the sudden loss of consciousness and convulsions are mainly due to *Vata* excitation and *Tamasika Avarana*. The *Snigdha* and *Medhya* actions of *Maha-Panchagavya Ghrita* help lubricate the neural pathways, stabilize nerve conduction, calm hyperactivity, and strengthen mental faculties. Additionally, regular use improves sleep, relieves stress, and prevents recurrence when combined with *Shodhana* therapies and lifestyle corrections.^[13]

Administration

Traditionally, it is prescribed orally in measured doses, often with *Anupana* like warm milk or lukewarm water. Dosage depends on age, strength, digestive capacity, and chronicity of the condition. Its safe long-term use is emphasized, making it suitable for chronic neuropsychiatric management.^[14]

Contemporary Relevance

Recent experimental and pilot clinical studies have begun exploring the effects of *Panchagavya Ghrita* and its components on seizure models, oxidative stress markers, neurotransmitter modulation, and neuroprotection. However, large-scale clinical trials and standardization studies are still needed to fully validate its efficacy and integrate it into evidence-based neurological care.^[15]

CONCEPTUAL STUDY

Apasmara is an anciently described major *Manas Roga* (psychiatric disorder) in *Ayurvedic* classics, which closely correlates with the modern concept of epilepsy. The word *Apasmara* is derived from the *Sanskrit* root ‘*Smara*’ (memory or consciousness) prefixed with ‘*Apa*’ (loss or away), indicating sudden loss of memory and consciousness accompanied by involuntary body movements and behavioral disturbance. *Charaka Samhita*, *Sushruta Samhita*, and *Ashtanga Hridaya* provide elaborate details about its causes, pathogenesis, types, clinical features, prognosis, and management principles.^[16]

Etymology and Definitions

According to *Charaka*, *Apasmara* is defined as ‘*Smriti Nasha*’ (loss of memory) accompanied by ‘*Bibhatsa Cheshta*’ (terrifying movements and behavior), ‘*Buddhi Mohana*’ (loss of intellect), and ‘*Bhoota Darshana*’ (illusions). *Sushruta* describes it as a sudden loss of memory due to derangement of *Manas*, resulting in unconsciousness with frothing, abnormal postures, and convulsions. The disease reflects a disturbed state of the *Manovaha Srotas* (channels governing mental functions) and is thus categorized under *Manas Roga*.^[17]

Etiology (Nidana)

Various causative factors are mentioned in classical texts, including excessive consumption of incompatible, unwholesome, stale, or heavy foods; excessive grief, fear, anger, and suppression of natural urges (*Vega Dharana*); *Prajnaparadha* (intellectual blasphemy); indulgence in intoxicants; and sudden trauma or shock. All these lead to vitiation of primarily

Vata Dosha, which, along with aggravation of *Rajas* and *Tamas*, obstructs normal mental faculties.^[18]

Pathogenesis (Samprapti)

The vitiated *Doshas* (*Vata*, *Pitta*, *Kapha*), together with *Rajas* and *Tamas*, obstruct the *Manovaha Srotas*. This results in impairment of *Dhi* (intellect), *Dhriti* (control), and *Smriti* (memory). The mind loses its equilibrium and the patient experiences sudden blackouts, loss of consciousness, involuntary jerking, frothing, and abnormal behaviors. Classical texts mention *Avarana* (obstruction) as a core component in the pathogenesis, especially *Vata* being enveloped by *Tamas* leading to sudden attacks.^[19]

Classification (Bheda)

Apasmara is classified into four types based on predominant *Dosha* involvement.

1. *Vataja Apasmara* – marked by tremors, body stiffness, and sudden loss of consciousness.
2. *Pittaja Apasmara* – associated with excessive salivation, anger, reddish eyes, burning sensation.
3. *Kaphaja Apasmara* – characterized by heaviness of the head, excessive salivation, drowsiness.
4. *Sannipataja Apasmara* – a mixed type involving all three *Doshas*, considered the most severe and difficult to cure.

Clinical Features (Lakshana)

Classical signs include sudden falling, unconsciousness, frothing at the mouth, clenching of teeth, abnormal postures, stiffness or tremors, involuntary movements, upward rolling of eyes, and regaining consciousness with confusion or fatigue. Some texts also mention hallucinations or illusions preceding an attack. These correlate well with modern seizure semiology like tonic-clonic movements, aura, post-ictal confusion, and repetitive episodes.^[20]

Prognosis (Sadhyasadyata)

Prognosis depends on the type and chronicity. *Vataja*, *Pittaja*, and *Kaphaja* types are considered manageable with proper *Shodhana* and *Shamana* therapies, whereas *Sannipataja* is *Kruchchha Sadhya* (difficult to cure). Recurrence is common if the root cause persists and mental faculties remain disturbed.^[21]

Management (Chikitsa)

Ayurvedic treatment focuses on *Dosha Prashamana* (pacification of aggravated *Doshas*), removal of *Avarana*, stabilization of *Manas* and strengthening of *Dhi*, *Dhriti*, and *Smriti*. The main therapies include *Snehana* (internal and external oleation), *Swedana* (fomentation), *Shodhana* procedures like *Vamana* (emesis) and *Virechana* (purgation) to clear *Kapha* and *Pitta*, *Nasya* for head region disorders, and administration of *Medhya Rasayana* like *Maha-Panchagavya Ghrita* to nourish brain tissues and improve mental clarity.^[22]

Formulations like *Maha-Panchagavya Ghrita* are emphasized due to their synergistic action of *Panchagavya* components which rejuvenate the nervous system, pacify *Vata* and *Tama*, and act as *Ojovardhaka* (immuno-enhancer) and *Medhya* (brain tonic). Besides internal medications, mental hygiene, proper diet (*Pathya Ahara*), daily regimens (*Dinacharya*), and avoidance of triggering factors are integral to long-term control and prevention of recurrence.^[23]

FLOWCHART: THE ROLE OF MAHA-PANCHAGAVYA GHRITA IN THE MANAGEMENT OF APASMARA

Etiology

- *Vata Dosha* aggravation
- Dominance of *Rajas* and *Tamas*

↓

Pathogenesis

- *Avarana* (obstruction) of *Manovaha Srotas*
- Disturbance of *Dhi* (intellect), *Dhriti* (control), *Smriti* (memory)
- Leads to *Apasmara* attacks

↓

Therapy: Maha-Panchagavya Ghrita

- Administered after *Shodhana* therapies (optional)

↓

Therapeutic Actions

- Pacifies *Vata Dosha*
- Clears *Avarana*
- Acts as *Medhya Rasayana* (nootropic)
- Nourishes *Majja Dhatu* (nervous tissue)

→ Prevents recurrence of episodes

Overall, Etiology → Pathogenesis → Maha-Panchagavya Ghrita → 5 Targeted Benefits → Effective Management of Apasmara

RESULT AND FINDINGS

- Classical *Ayurvedic* texts consistently describe *Maha-Panchagavya Ghrita* as a specific *Medhya Rasayana* indicated for *Apasmara* (epilepsy) and related *Manas Roga*.
- Its formulation targets the root cause by pacifying aggravated *Vata Dosha*, reducing *Rajas* and *Tamas*, and clearing *Avarana* of *Manovaha Srotas*.
- Experimental studies show that its key herbs like *Brahmi*, *Shankhapushpi*, and *Vacha* possess proven neuroprotective, anti-convulsant, anxiolytic, and antioxidant actions.
- Animal models demonstrate reduction in seizure frequency, improved cognitive markers, and stabilization of neuronal activity when such ingredients are used.
- Limited pilot clinical studies and case reports indicate symptomatic improvement in seizure control, memory, and quality of life without significant side effects.
- Evidence highlights that the formulation is safe for long-term use when administered with proper *Anupana* and *Panchakarma* support.
- A major gap remains: robust, large-scale randomized controlled trials are lacking to establish standard dosage, safety profiles, and objective efficacy measures.
- Overall, findings support its integrative use as an adjunct therapy for epilepsy, aligning ancient *Ayurvedic* principles with emerging scientific validation.

DISCUSSION

The management of *Apasmara* has always posed challenges both in ancient and modern contexts due to its unpredictable nature, recurrent attacks, and significant impact on the patient's quality of life. Modern antiepileptic drugs, though effective in many cases, often come with side effects like cognitive dullness, dependence, and incomplete control, especially in drug-resistant epilepsy. This gap creates a need to explore safe, holistic, and supportive therapies, where Ayurveda offers valuable options rooted in centuries of clinical experience.^[24]

Maha-Panchagavya Ghrita stands out as a unique *Ghrita Kalpana* prescribed for neuropsychiatric conditions like *Apasmara* due to its carefully selected blend of *Panchagavya* and *Medhya Rasayana* herbs. Its formulation is designed not just to control

symptoms but to address the core *Samprapti* by pacifying aggravated *Vata*, clearing *Avarana*, and strengthening *Dhi*, *Dhriti*, and *Smriti*. The *Snigdha* nature of ghee acts as a vehicle to deliver fat-soluble herbal constituents deeply into the nervous system, enhancing bioavailability and healing at the cellular level.^[25]

The review findings indicate that individual ingredients such as *Brahmi*, *Shankhapushpi*, and *Vacha* have established neuroprotective, anti-convulsant, and cognition-enhancing properties supported by preclinical studies. Animal experiments and small-scale studies show encouraging results in reducing seizure frequency and improving mental clarity, which aligns well with the classical understanding of how *Maha-Panchagavya Ghrita* works in *Apasmara*. This synergy highlights the practical relevance of traditional formulations in complementing modern epilepsy management.^[26]

Despite promising evidence, this review also points out significant gaps in scientific validation. While textual support and small studies indicate clear benefits, large-scale randomized controlled trials, standardized preparation methods, dose-finding studies, and well-defined outcome measures are still lacking. Addressing these gaps through rigorous research could pave the way for integrating such classical *Ghrita* formulations into mainstream neurology as supportive, safe, and cost-effective options.^[27]

CONCLUSION

The present review indicates that *Maha-Panchagavya Ghrita* is a time-honoured *Ayurvedic* formulation with strong textual support for its role in managing *Apasmara* by addressing the root cause through *Vata Shamana*, removal of *Avarana*, and rejuvenation of mental faculties. Preliminary experimental and limited clinical evidence supports its neuroprotective, anti-convulsant, and *Medhya Rasayana* actions, aligning well with its classical indications. Although the therapeutic potential is promising, there is a clear need for well-designed, large-scale clinical trials to establish standardized preparation, dosage, and safety parameters. Integrating *Maha-Panchagavya Ghrita* judiciously with modern care and lifestyle measures can offer a holistic and safe complementary approach for better seizure control and improved quality of life in patients with *Apasmara*.

CONFLICT OF INTEREST –NIL.

SOURCE OF SUPPORT –NONE.

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