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CLASSICAL DRUG REVIEW OF *SHARADIPANCHMOOLYADI GHRITA*

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ABSTRACT

Background *Sharadipanchmoolyadi Ghrita* is a classical Ayurvedic *Ghrita Kalpana* described in the management of *Mutrashmari* and associated urinary complaints. The formulation is based on *Sharadipanchamula* consisting of *Kusha, Darbha, Kasha, Shara* and *Ikshu*, with *Gokshura* used as *Kalka* and *Go-ghrita* as the lipid medium. The ingredient profile is predominantly characterized by *Madhura Rasa*, *Snigdha Guna*, *Sheeta Virya* and *Madhura Vipaka*, with an overall emphasis on *Vata-Pitta Shamana*, urinary support and soothing of *Mutravaha Srotas*. The synopsis additionally records flavonoids, phenolic compounds, triterpenoids, saponins, alkaloids, steroids, coumarins and related phytochemical groups among the plant ingredients. **Materials and Methods** A conceptual drug review was carried out from classical Ayurvedic references, *Dravyaguna* literature, *Bhaisajya Kalpana* sources and the ingredient/phytochemical data compiled for the formulation. The formulation, plant parts, *Rasa Panchaka*, *Dosha Karma*, ratio, dose and indications were organized systematically. The probable mode of action was interpreted through classical pharmacodynamics and the listed phytochemical groups. **Results & Discussion** The classical formulation design combines a predominantly cooling root

decoction with *Gokshura Kalka* and a *Snigdha Ghrita* medium. Its proposed actions in *Mutrashmari* are best understood as a combined *Mutrala, Vata-Pitta Shamaka, Daha-Prashamana* and supportive *Ashmari-bhedana* approach. **Conclusion** *Sharadipanchmoolyadi Ghrita* has a coherent ingredient and pharmaceutical profile for urinary disorders. Its plant content, formulation ratio and classical properties provide a rational basis for further pharmacognostic, pharmaceutical and clinical evaluation.

Keywords: *Sharadipanchmoolyadi Ghrita*; *Sharadipanchamula*; *Gokshura*; *Mutrashmari*; *Ashmari*; *Ghrita Kalpana*

INTRODUCTION

Ayurveda describes *Ashmari* as a disorder of the urinary system in which concretions produce pain, obstruction and difficulty in urination. *Mutrashmari* is clinically important because pain, dysuria and recurrence may considerably affect daily activity. Classical management includes dietary regulation, medicinal preparations and procedure-based measures selected according to the stage and severity of disease. The continued use of herbal and *Ghrita*-based formulations reflects an attempt to act on both the urinary passage and the underlying *Dosha-Srotas* disturbance. [1]

Classical descriptions of *Mutrashmari* emphasize severe pain in the region of the bladder and urinary passage, interrupted or difficult urination and the possibility of blood-stained urine. The disease is described in different *Dosha*-dominant forms, and the therapeutic approach varies accordingly. In this context, formulations having *Mutrala*, soothing, *Vata-Pitta Shamaka* and stone-oriented actions are clinically relevant for conceptual evaluation. [2]

From the contemporary viewpoint, urinary calculi are heterogeneous mineral concretions with a tendency for recurrence. Their management may require hydration, pharmacological measures, endoscopic procedures or surgery depending on stone size, site, composition and complications. This provides a useful background for evaluating a classical formulation without equating its Ayurvedic actions with a single modern pharmacological mechanism.[3]

MATERIALS AND METHODS

The present work is a conceptual and classical drug review. Information regarding *Sharadipanchmoolyadi Ghrita* was organized from *Chakradatta*, *Dravyaguna Vijnana*, *Bhaisajya Kalpana* literature and pharmacognostic/phytochemical references used for the plant ingredients. The review focused on botanical identity, part used, Ayurvedic pharmacodynamics, listed chemical groups, formulation ratio, manufacturing procedure, dose,

indication and probable mode of action. The information was then synthesized ingredient-wise to explain the formulation as a complete therapeutic unit rather than as isolated herbs.[4]

DRUG REVIEW

Sharadipanchmoolyadi Ghrita is described in the *Ashmari Chikitsa* context of *Chakradatta*. The formulation uses the decoction of *Sharadipanchamula* as the aqueous phase, *Gokshura* as *Kalka* and *Go-ghrita* as the lipid medium. The source material lists *Ashmari, Mutrakrichra* and *Retomarga Ruja* among the indications. Thus, the formulation is directed toward painful, obstructive and irritating conditions of the urinary/reproductive passage, with *Mutrashmari* as the principal disease context.[5]

Ingredient Composition

The formulation contains six plant-derived components when the five roots of *Sharadipanchamula* are counted individually, along with *Go-ghrita*. The decoction group is composed of *Kusha, Darbha, Kasha, Shara* and *Ikshu* roots, while *Gokshura* root is incorporated as the paste component.

S. No.	Ingredient	Scientific name	Part used	Rasa / Guna	Virya / Vipaka	Dosha Karma
1	Kusha	*Desmostachya bipinnata*	Root	Madhura, Kashaya / Laghu, Snigdha	Sheeta / Madhura	Tridoshaghna
2	Darbha	*Imperata cylindrica*	Root	Madhura, Kashaya / Laghu, Snigdha	Sheeta / Madhura	Tridoshaghna
3	Kasha	*Saccharum spontaneum*	Root	Madhura, Kashaya / Laghu, Snigdha	Sheeta / Madhura	Vata-Pitta Shamaka
4	Shara	*Saccharum munja*	Root	Madhura, Tikta / Laghu, Snigdha	Sheeta / Madhura	Tridoshaghna
5	Ikshu	*Saccharum officinarum*	Root	Madhura / Guru, Snigdha	Sheeta / Madhura	Vata-Pitta Shamaka
6	Gokshura	*Tribulus terrestris*	Root	Madhura / Guru, Snigdha	Sheeta / Madhura	Vata-Pitta Shamaka
7	Go-ghrita	*Cow's ghee*	-	Madhura / Guru, Snigdha	Sheeta / Madhura	Vata-Pitta Shamaka

Plant Content and Phytochemical Profile

The plant-content table in the synopsis records major classes of secondary metabolites for the six botanical ingredients. These groups do not establish a disease-specific clinical effect by themselves, but they help characterize the chemical diversity of the formulation and support the need for standardized raw-drug authentication and finished-product quality control.

Plant ingredient	**Listed phytochemical content**
Kusha (Desmostachya bipinnata)	Glycosides, flavonoids, steroids, coumarins, alkaloids
Darbha (Imperata cylindrica)	Coumarins, flavonoids, lignan glycosides, terpenoids, steroids
Kasha (Saccharum spontaneum)	Triterpenes, steroids, anthraquinones, coumarin, flavonoids, alkaloids
Shara (Saccharum munja)	Flavonoids, terpenoids, saponins, tannins, alkaloids
Ikshu (Saccharum officinarum)	Phenolic compounds, steroids, alkaloids, tannins
Gokshura (Tribulus terrestris)	Saponins, alkaloids, triterpenoids, flavonoids

Ingredient-wise Review

Kusha – (*Desmostachya bipinnata)*

Kusha is used as root and is one of the five components of *Sharadipanchamula*. Its listed Ayurvedic profile is *Madhura-Kashaya Rasa, Laghu-Snigdha Guna, Sheeta Virya* and *Madhura Vipaka*, with *Tridoshaghna* action. The plant-content list records glycosides, flavonoids, steroids, coumarins and alkaloids. In the formulation, its cooling and relatively light profile contributes to the decoction base without adding excessive heaviness, while its inclusion with the other grass roots creates a broad urinary-oriented classical group. Pharmacognostic work on *Desmostachya bipinnata* supports the importance of proper plant-part identification and standardization before pharmaceutical use.[6]

Darbha – (*Imperata cylindrica)*

Darbha is incorporated as root. The recorded pharmacodynamic profile is *Madhura-Kashaya Rasa, Laghu-Snigdha Guna, Sheeta Virya* and *Madhura Vipaka*, with *Tridoshaghna* action. Its listed plant content includes coumarins, flavonoids, lignan glycosides, terpenoids and steroids. Within the formulation, the predominance of cooling properties complements the intended use in urinary irritation and *Pitta*-associated burning, while the *Snigdha* component prevents the decoction group from being interpreted as purely drying. Contemporary review literature on *Imperata cylindrica* also demonstrates a chemically diverse phytochemical profile, reinforcing its identity as an active botanical rather than an inert filler.[7]

Kasha – (*Saccharum spontaneum)*

Kasha root is listed with *Madhura-Kashaya Rasa, Laghu-Snigdha Guna, Sheeta Virya* and *Madhura Vipaka*, and its *Dosha Karma* is described as *Vata-Pitta Shamaka*. The synopsis records triterpenes, steroids, anthraquinones, coumarin, flavonoids and alkaloids among its chemical groups. Its place in *Sharadipanchamula* is pharmacodynamically important because *Sheeta Virya* and *Madhura Vipaka* support a soothing urinary profile, while the *Kashaya* component adds a distinct taste-based action to the otherwise strongly *Madhura*-dominant formulation. Published work on *Saccharum spontaneum* root also reports phytochemical and biological activity of the root extract.[8]

Shara – (*Saccharum munja)*

Shara root is characterized in the formulation by *Madhura-Tikta Rasa, Laghu-Snigdha Guna, Sheeta Virya* and *Madhura Vipaka*, with *Tridoshaghna* action. Its listed constituents include flavonoids, terpenoids, saponins, tannins and alkaloids. The presence of *Tikta Rasa* distinguishes *Shara* from several other members of the group and broadens the formulation beyond an exclusively sweet-astringent profile. Pharmacognostic evaluation of *Saccharum munja* root has been reported, making botanical authentication particularly relevant when the drug is used as part of a multi-root decoction in which substitution could otherwise be difficult to recognize after processing.[9]

Ikshu – (*Saccharum officinarum)*

Ikshu root is described with *Madhura Rasa, Guru-Snigdha Guna, Sheeta Virya* and *Madhura Vipaka*, and is classified as *Vata-Pitta Shamaka*. The synopsis lists phenolic compounds, steroids, alkaloids and tannins. Compared with the lighter members of *Sharadipanchamula*, *Ikshu* adds a more nourishing and unctuous character through *Guru-Snigdha Guna*. This creates a useful internal balance in the group: the formulation remains cooling and urinary-oriented while avoiding an excessively depleting profile. Pharmacognostic and phytochemical study of *Saccharum officinarum* root has also been reported in the literature cited for the formulation.[10]

Gokshura –(*Tribulus terrestris)*

Gokshura is used as root and, unlike the five roots used for *Kwatha*, it is incorporated as *Kalka*. Its listed properties are *Madhura Rasa, Guru-Snigdha Guna, Sheeta Virya* and *Madhura Vipaka*, with *Vata-Pitta Shamaka* action. The plant-content table records saponins, alkaloids, triterpenoids and flavonoids. In the therapeutic design of the formulation, *Gokshura* is especially important because the synopsis attributes *Mutrala* and *Ashmari-bhedana* relevance

to it. Classical *Dravyaguna* descriptions also place *Gokshura* prominently among drugs used for urinary-system disorders.[11]

Go-ghrita as the Lipid Medium

Go-ghrita is not a plant ingredient, but it is a major active component of the formulation. It is listed as *Madhura* in taste, *Guru-Snigdha* in quality, *Sheeta* in potency and *Madhura* in post-digestive effect, with *Vata-Pitta Shamaka* action. Its pharmaceutical role is equally important: the *Ghrita* phase forms the final dosage matrix after processing with the decoction and *Kalka*. In this formulation design, the unctuous medium can be understood as complementing the cooling root group and supporting the intended soothing effect on painful or irritated urinary passages.

5. Formulation Ratio, Dose and Indications

Component	**Pharmaceutical form**	**Quantity**
Sharadipanchamula	*Kwatha*	16 parts
Go-ghrita	*Sneha*	4 parts
Gokshura	*Kalka*	1 part

The documented preparation ratio is therefore 16:4:1 for *Kwatha : Ghrita : Kalka*. The stated dose is 12 g. Sugar is listed as an additive. The indications recorded are *Ashmari, Mutrakrichra* and *Retomarga Ruja*. These details are important because a classical drug review should define not only the plant list but also the pharmaceutical form and quantitative relationship among the ingredients.

Method of Preparation

The preparation follows the basic principles of *Sneha Kalpana*. *Sharadipanchamula Kwatha*, *Go-ghrita* and *Gokshura Kalka* are combined in the stated ratio of 16:4:1 in a suitable vessel and subjected to mild heating. Processing is continued until the aqueous component is removed and the preparation reaches the desired *Sneha* stage, after which it is filtered and stored in a suitable wide-mouthed glass container. The formulation therefore depends on both raw-drug quality and control of the heating process, because under-processing may retain excess moisture while over-processing may alter the final *Ghrita*.[12]

Ayurvedic Pharmacodynamic Analysis

The overall formulation is predominantly *Madhura* in *Rasa* and *Vipaka*, *Snigdha* in *Guna* and *Sheeta* in *Virya*. This pattern is compatible with a strong *Vata-Pitta Shamaka* orientation. *Kusha, Darbha* and *Shara* are additionally listed as *Tridoshaghna*. In a painful urinary disorder, *Vata* is

important in *Shoola* and obstruction, while *Pitta* is relevant to burning and irritation. The combination of cooling and unctuous qualities therefore has a clear classical rationale.

The formulation is not composed only of sweet and heavy substances. *Kusha, Darbha, Kasha* and *Shara* are described as *Laghu* in the ingredient table, while *Kashaya* and *Tikta Rasa* are also represented. This gives the decoction group a mixed functional character. *Gokshura* and *Go-ghrita* contribute *Guru-Snigdha* qualities, creating a balance between light root decoction components and a more unctuous final dosage form.

Probable Mode of Action in *Mutrashmari*

Dosha aggravation and disturbance of *Mutravaha Srotas*

↓

Pain, burning, dysuria and obstructive urinary features

↓

Sharadipanchamula Kwatha + Gokshura Kalka + Go-ghrita

↓

Predominant *Sheeta*, *Snigdha* and *Madhura* profile

↓

***Vata-Pitta Shamana* + *Mutrala* support + soothing of urinary passage**

↓

Support to stone passage / *Ashmari-bhedana* concept and reduction of associated symptoms

The source synopsis proposes that *Gokshura* contributes an *Ashmari-bhedana* effect and that *Sharadipanchamula* together with *Gokshura* provides *Mutrala* support. It further relates flavonoids and triterpenes to stone-oriented activity and phenolic compounds, saponins and alkaloids to urinary action. These associations should be treated as a probable mechanistic interpretation rather than as proof that the finished classical formulation dissolves all urinary stones in clinical practice.

Pharmaceutical and Quality-Control Significance

The ingredient diversity makes raw-drug authentication essential. Five of the principal ingredients are grass or sugarcane-related roots that may look similar after drying and cutting. Authentication should therefore precede decoction preparation. The root part specified in the formulation should be used consistently, because variation in plant part can change both classical attributes and phytochemical composition.

Standardization of the finished *Ghrita* should consider identity of raw materials, cleanliness, ratio of *Kwatha-Ghrita-Kalka*, control of heating, removal of moisture, absence of charring, uniform appearance and appropriate storage. Because the formulation contains both an

aqueous decoction phase and a lipid phase during processing, the endpoint of *Sneha Paka* is a critical pharmaceutical step. Future analytical work may additionally profile selected phytochemical markers from the plant ingredients, but such markers should supplement rather than replace classical manufacturing controls.

Integrated Contribution of *Sharadipanchamula*

The five roots of *Sharadipanchamula* should be interpreted as a coordinated decoction group rather than as five independent single drugs. *Kusha, Darbha, Kasha* and *Shara* are described as relatively *Laghu*, whereas *Ikshu* contributes a more *Guru-Snigdha* quality. All five share *Sheeta Virya* and *Madhura Vipaka*, producing a consistent cooling post-digestive direction. At the same time, the presence of *Kashaya Rasa* in *Kusha, Darbha* and *Kasha*, and *Tikta Rasa* in *Shara*, diversifies the group beyond a purely *Madhura* formulation. This internal balance is important because the decoction must remain suitable for urinary discomfort while still addressing the pain and irritation associated with *Mutrashmari*.

The plant-content pattern also shows complementary chemical diversity within the group. Flavonoids are listed in *Kusha, Darbha, Kasha* and *Shara*; triterpene or terpenoid groups occur in *Darbha, Kasha* and *Shara*; phenolic compounds are listed for *Ikshu*; and coumarins, tannins, steroids, alkaloids and glycosides occur across different members. The significance of this diversity is not that every compound is proven to reach an effective concentration in the finished *Ghrita*, but that the classical root group represents a chemically complex botanical matrix. For standardization, this supports testing the identity and quality of each root before they are combined into the common *Kwatha*.

Role of *Gokshura Kalka* and *Go-ghrita* in the Formulation Matrix

The use of *Gokshura* as *Kalka* gives it a distinct pharmaceutical position. In the source formulation, the five-root group is extracted through *Kwatha*, whereas *Gokshura* is added as a paste in one part. This means that the final medicine is not simply a decoction converted into ghee; it is a three-component *Sneha Kalpana* containing an aqueous botanical extract, a fresh or finely processed paste fraction and a lipid medium. Conceptually, *Gokshura* strengthens the urinary orientation of the preparation through its listed *Madhura Rasa, Guru-Snigdha Guna, Sheeta Virya, Madhura Vipaka* and *Vata-Pitta Shamaka* profile, together with the *Mutrala* and *Ashmari-bhedana* relevance attributed to it in the synopsis.

Go-ghrita completes the formulation by providing the *Sneha* base at four parts. Its *Snigdha* quality is particularly relevant where pain and difficult passage are interpreted with a *Vata* component, while its *Sheeta* nature is compatible with a *Pitta*-soothing therapeutic direction. From a pharmaceutical standpoint, the final action of the formulation depends on proper

integration of the *Kwatha, Kalka* and *Ghrita* phases during controlled heating. This explains why the classical preparation method is as important as the ingredient list: changing the ratio, omitting the *Kalka*, inadequately reducing the aqueous phase or over-heating the *Ghrita* would produce a preparation that is not equivalent to the formulation described in the synopsis.

RESULTS AND FINDINGS

- *Sharadipanchmoolyadi Ghrita* contains five roots of *Sharadipanchamula*, *Gokshura* root and *Go-ghrita*.
- The five *Sharadipanchamula* plants are *Kusha (Desmostachya bipinnata), Darbha (Imperata cylindrica), Kasha (Saccharum spontaneum), Shara (Saccharum munja)* and *Ikshu (Saccharum officinarum)*.
- *Gokshura* is identified as *Tribulus terrestris* and is used as *Kalka*.
- The formulation ratio is *Sharadipanchamula Kwatha* 16 parts, *Go-ghrita* 4 parts and *Gokshura Kalka* 1 part.
- The stated dose is 12 g, sugar is listed as an additive, and the indications include *Ashmari, Mutrakrichra* and *Retomarga Ruja*.
- Most ingredients possess *Sheeta Virya* and *Madhura Vipaka*, producing a predominant *Vata-Pitta Shamaka* pattern.
- *Kusha, Darbha* and *Shara* are listed as *Tridoshaghna*, whereas *Kasha, Ikshu, Gokshura* and *Go-ghrita* are listed as *Vata-Pitta Shamaka*.
- The plant-content profile includes flavonoids across several ingredients and also glycosides, coumarins, triterpenoids, saponins, phenolic compounds, tannins, steroids and alkaloids.
- The preparation follows *Sneha Kalpana* principles and depends on correct ratio, mild heating, suitable endpoint and proper storage.
- The proposed therapeutic rationale combines *Vata-Pitta Shamana*, *Mutrala* support, soothing of the urinary passage and the classical concept of *Ashmari-bhedana*.
- The phytochemical interpretation is supportive and hypothesis-generating; it should not be treated as direct evidence of clinical stone dissolution by the finished formulation.
- The formulation is suitable for further pharmacognostic standardization, pharmaceutical validation and controlled clinical evaluation.

DISCUSSION

The revised ingredient analysis shows that the therapeutic logic of *Sharadipanchmoolyadi Ghrita* lies in the formulation as a whole. The five-root *Sharadipanchamula* decoction creates a predominantly cooling and relatively light botanical base, while *Gokshura Kalka* adds a more

focused urinary component and *Go-ghrita* provides the unctuous lipid matrix. The repeated occurrence of flavonoids across the plant-content table is noteworthy because flavonoids and flavonoid-rich plant extracts have been investigated for antioxidant, anti-inflammatory and anti-urolithiatic mechanisms in experimental settings. Such evidence is supportive of biological plausibility but cannot be used to equate an isolated phytochemical action with the clinical action of the complete *Ghrita*.[13]

The chemical-content table also lists triterpenes or triterpenoids in *Kasha, Darbha* and *Gokshura*. Experimental work has explored protective effects of triterpenes in calcium oxalate urolithiasis models, which provides one possible modern line of interpretation for the source synopsis statement regarding prevention of new stone formation. However, the finished formulation contains multiple botanical and lipid components subjected to decoction and *Sneha Paka*; therefore, the concentration, extraction and bioavailability of individual compounds in the final product cannot be assumed from raw-herb phytochemical lists alone.[14]

A major strength of the formulation is the convergence of classical pharmacodynamics and plant diversity: *Sheeta Virya* addresses the conceptual *Pitta* component, *Snigdha Guna* and *Madhura Vipaka* support *Vata Shamana*, while the root decoction and *Gokshura* provide the urinary-system orientation. Polyphenol-related mechanisms have also been discussed in relation to calcium oxalate urolithiasis, but future research should directly standardize *Sharadipanchmoolyadi Ghrita*, characterize its finished-product chemistry, document safety and test clinically meaningful outcomes such as pain, dysuria, stone size, stone passage and recurrence. This approach would preserve the classical formulation while generating evidence specific to the actual medicine administered to patients.[15]

CONCLUSION

Sharadipanchmoolyadi Ghrita is a well-defined classical *Ghrita Kalpana* composed of *Kusha, Darbha, Kasha, Shara, Ikshu, Gokshura* and *Go-ghrita*. The five roots form the *Sharadipanchamula Kwatha*, *Gokshura* is used as *Kalka*, and *Go-ghrita* forms the lipid base in a 16:4:1 ratio. The formulation is predominantly *Madhura, Snigdha, Sheeta* and *Vata-Pitta Shamaka*, while its plant content includes multiple phytochemical classes such as flavonoids, triterpenoids, phenolics, saponins and alkaloids. The combined classical and plant profile provides a rational basis for its traditional use in *Mutrashmari* and associated urinary symptoms, while also highlighting the need for direct standardization and clinical evaluation of the finished formulation.

CONFLICT OF INTEREST - Nil.

SOURCE OF SUPPORT - None.

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