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REVISITING *PATHYA PATRA DRAVYA* IN *KASA, JVARA* AND *GULMA*: A CLASSICAL-TO-CONTEMPORARY EVIDENCE SYNTHESIS

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ABSTRACT

Introduction: In Ayurveda, *Pathya* represents appropriate dietary and therapeutic measures that support disease management and restoration of physiological equilibrium. *Patra Dravya* are frequently incorporated into disease-specific dietary regimens, yet their scattered descriptions across classical texts have not been systematically synthesized with contemporary scientific evidence. This review aimed to evaluate selected *Pathya Patra Dravya* indicated in *Kasa, Jvara,* and *Gulma* and to examine their classical therapeutic rationale in relation to contemporary pharmacological findings. **Methods:** A structured literature review was conducted using the *Brihattrayi*, to identify disease-specific *Pathya Patra Dravya*. Data regarding classical indications, *Rasapanchaka*, and relevant *Dosha*-related attributes were systematically documented. Contemporary scientific literature was reviewed to identify pharmacological evidence corresponding to their traditional therapeutic applications. **Results:** *Varuna* was documented for *Gulma*, while *Patola* was indicated in *Jvara*. *Kantakari, Sunishannaka, Vastuka,* and *Kakamachi* were identified as *Pathya* substances relevant to *Vataja Kasa*. Their classical *Rasapanchaka* characteristics provide a theoretical basis for their therapeutic utility according to Ayurvedic principles. Contemporary studies have reported biological activities relevant to these indications, including anti-inflammatory, antioxidant, antimicrobial, hepatoprotective, and respiratory-supportive effects. However, the nature and strength of evidence varied considerably among the individual drugs. **Conclusion:** The findings indicate that *Pathya Patra Dravya* represent a disease-specific component of Ayurvedic therapeutic nutrition, with their selection guided by classical pharmacodynamic principles and disease characteristics. Systematic integration of classical textual evidence with contemporary research may contribute to evidence-informed utilization and future validation of *Pathya Patra Dravya* in *Kasa, Jvara,* and *Gulma*.

KEYWORDS: *Pathya Patra, Gulma, Kasa, Jvara*, Pharmacological rational.

INTRODUCTION

Herbal market

Medicinal plants have been the mainstay of traditional health care practices across all societies for centuries. A very significant population in the developing countries continues to thrive upon the herbal drugs, which could be gathered from nature almost free. India also has very strong traditional health care practices that are represented by the classical systems of medicine like *Ayurveda*, Siddha, Unani, and Sowa-rigpa on one hand, and by a very diverse area-specific and community-specific folk healthcare practices on the other. The major commonality of the Indian classical and the folk health care traditions is their dependence upon the raw material derived from a large diversity of plant species, which is estimated to be about 6,500 species.[1]

Importance of medicinal plants

Indian medicinal plants also provide a rich source for antioxidants that are known to prevent/delay different diseased states. The antioxidant protection is observed at different levels. The medicinal plants also contain other beneficial compounds like ingredients for functional foods.

Millions of Indians use herbal drugs regularly, as spices, home-remedies, health foods as well as over-the-counter (OTC) as self-medication or also as drugs prescribed in the non-allopathic systems.[2]

Since ancient times a number of Indian medicinal plants have been used globally. There are many references to Indian medicinal plants and trade in spices in a number of historical documents. For instance, Indian aloe is very widely used in India for cosmetic, medicinal and nutraceutical purposes.[3] But the antiaging effects of the pickled preparations are unique.[4,5] Despite the global reputation of aloe in dermato-cosmetics, the potential as antiaging is still untapped.

Demand of food as well as leafy vegetables

It has been recognized in the developing world that there is a serious gap between the demand and supply of food. Now a days researchers are focused in narrowing this gap by introducing lesser-known edible plant that can uplift the nutritional security of the state and in turn the country.[6] In India there are 6000 species of plants for consumption, among them 1/3rd are green leafy vegetables which are rich sources of minerals and vitamins, which if consumed regularly can substantially improve the micronutrient status of a particular population.[7]

Leafy vegetables as medicinal purpose

Since ages man has been using green leafy vegetables as medicine. Ethno-botanists have been elucidating their over lapping role in context to nutrition and therapeutics. Plants used for medicinal attributes contain phytochemicals with pharmacological and physiological significance.[8] These are identified to be good sources of natural antioxidants such as tocopherols, vitamin C and polyphenols which play an important role in the sustenance of good health.

In recent years, systems biology has provided a transformative framework for validating traditional dietary paradigms through network pharmacology, shifting the focus from a "one-target, one-drug" model to a "multi-target, multi-component" interactome.[9,10] Within this context, the classical Ayurvedic concepts of *Pathya* (wholesome) and *Apathya* (unwholesome) *Dravyas* represent an early form of personalized nutrition and therapeutic intervention.[11] Specifically, the *Patra Shaka* (leafy vegetables) described in the *Brihattrayi* are reported to possess diverse bioactivities, including antioxidant, anti-inflammatory, hepatoprotective properties and many more.[12] While these botanical entities are

traditionally classified based on their systemic effects, contemporary research suggests that their therapeutic efficacy—or potential for aggravation—arises from complex phytochemical-protein interactomes.[13] By utilizing pharmacological studies, it is now possible to map the bioactive constituents of these leaves to specific molecular targets and signalling pathways, thereby providing a mechanistic basis for why certain *Patra* act as supportive *Pathya* in specific disorders while others function as *Apathya* by perturbing pathological networks.[14,15] Consequently, integrating *Brihattrayi* classical descriptions with modern bioinformatics not only validates ancient dietary wisdom but also establishes a rigorous scientific foundation for their application in contemporary, network-based healthcare.

Kasa, *Jvara*, and *Gulma* are important disease entities in Ayurveda, characterized by distinct patterns of *Dosha* involvement and alterations in *Agni* and *Srotas*. *Kasa*, particularly *Vataja Kasa*, is associated with disturbance of *Vata* and impaired normal respiratory function. *Jvara* is regarded as a major systemic disorder involving *Doaha* and *Agni* dysregulation, with fever and associated constitutional manifestations. *Gulma* involves localized pathological accumulation associated predominantly with *Vata* and may present with abdominal discomfort, pain, or mass-like manifestations. In the Ayurvedic approach, appropriate *Pathya* is considered an integral component of disease management, supporting *Agni*, maintaining *Dosha* equilibrium, and facilitating recovery. Within this framework, *Patra Dravya* have particular importance because leafy medicinal plants may serve as both dietary and therapeutic resources and can be selected according to disease-specific requirements. Their inclusion as *Pathya* reflects the Ayurvedic principle of integrating nutrition with therapeutics. Systematic evaluation of these *Pathya Patra Dravya* in *Kasa, Jvara,* and *Gulma* can therefore provide insight into their classical therapeutic significance and establish a basis for correlation with contemporary scientific evidence.

MATERIAL AND METHOD

Ayurvedic books called Brihattrayi named Charaka Samhita, Sushruta Samhita and Ashtanga Hridaya were used with their commentaries for review of *Patra Dravya* as *Pathya* in treatment of *Kasa, Jvara* and *Gulma*. All references of *Patra* including references of *Patrashaka* were collected and depicted in tables given below in observation section. To explore Ayurvedic ideology of *Patrashaka* other Ayurvedic texts like Nighantus were also referred. For correlation with contemporary scientific evidence, published research articles were retrieved from electronic databases such as PubMed, Google Scholar, Scopus, and Web of Science. Only peer-reviewed articles, experimental studies, and review papers related to the pharmacological actions of the identified plant leaves were included. The collected data were systematically analyzed to compare classical Ayurvedic attributes and dietary recommendations with reported pharmacological activities, thereby establishing a conceptual correlation between traditional Ayurvedic knowledge and modern scientific findings.

OBSERVATIONS & DISCUSSION

Medicinal plants have been the cornerstone of traditional healthcare practices across societies for centuries, with a significant population in developing countries relying on herbal drugs. India, in particular, has a rich tradition of Ayurveda, Siddha, Unani, and Sowa-rigpa systems, utilizing around 6,500 plant species. Medicinal plants are very useful as they provide antioxidants, preventing/delaying diseased states;[16] contain beneficial compounds for functional foods;[17] used as spices, home remedies, health foods, and OTC medications;[18] globally used with historical references in Indian medicinal plants and spice trade.[19]

1/3rd of 6,000 edible plant species in India are green leafy vegetables. They are rich sources of minerals, vitamins, and phytochemicals.[20] Also possess health-benefiting substances, making them ideal for value-added products.[21] Thus, leafy vegetables act as Nutritional Powerhouses for all of us.

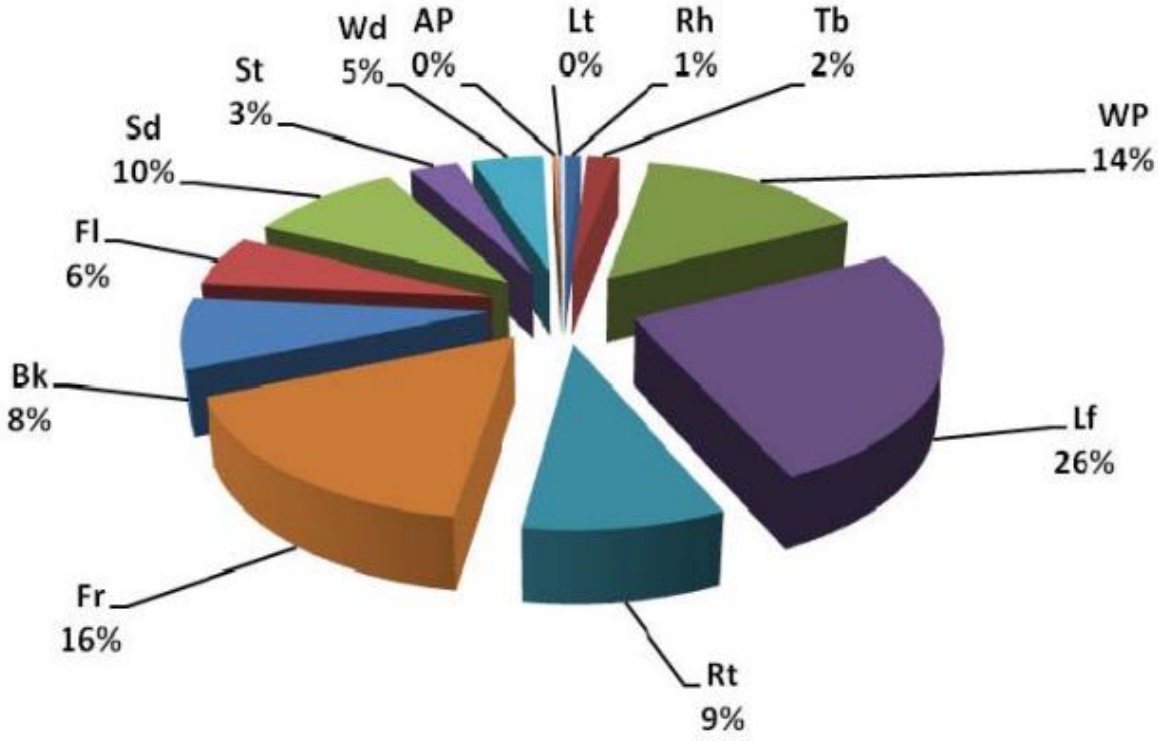

Figure 1 Statistics of plant parts used. Fr = Fruit; Rt = Root; Lf = Leaf; WP = Whole Plant; Bk = Bark; Fl = Flower; Sd = Seed; Tb = Tuber; Rh = Rhizome; St = Stem; Lt = Latex; Wd = Wood and AP = Aerial Parts.

Image 1: Use of different plant parts.[22]

Given image is showing the statistical distribution of plant parts used. It depicts that among all parts of plant, leaves are sharing major portion of percentage through its various application viz. for medicinal purpose, as a diet, as supplements, for preparation of household things, for rituals, for various industrial products etc.

This study catalogs *Pathya Patra Dravya* for diverse clinical indications by integrating ethnobotanical profiles with modern systems biology. Identified by their botanical source and family, these agents are analyzed via the Ayurvedic concepts of *Guna-Virya-Vipaka* to define their specific therapeutic roles. Using network pharmacology, the study maps the phytochemical-protein interactomes to identify the signaling pathways modulated by these leaves. Correlated with supportive pharmacological evidence findings provide a mechanistic foundation for the use of medicinal leaves as precision dietary interventions in integrative medicine.

Table No. 1: *Pathya Patra Dravya* for *Kasa, Jvara* and *Gulma.*

Sr. No.	Disease	Herb	Botanical source	Family	Reference
1.	*Vataja Kasa*	*Kakamachi*	*Solanum nigrum* L.	Solanaceae	Cha. Chi. 18/81
2.	*Vataja Kasa*	*Vastuka*	*Chenopodium album* L.	Amaranthaceae	Cha. Chi. 18/81
3.	*Vataja Kasa*	*Sunishannaka*	*Marsilea quadrifolia* L.	Marsileaceae	Cha. Chi. 18/81
4.	*Vataja Kasa*	*Kantakari*	*Solanum xanthocarpum* Schrad. & Wendl.	Solanaceae	A.H.Chi. 3/24
5.	*Gulma*	*Varuna*	*Crataeva nurvala* Buch.-Ham.	Capparaceae	A.H.Chi.14/110
6.	*Jvara*	*Patola*	*Trichosanthes dioica* Roxb.	Cucurbitaceae	Cha.Chi. 3/189

(Cha.Chi. – Charakasamhita Chikitsasthana, A.H.Chi. – Ashtanga Hridaya Chikistasthana)

1. *Vataja Kasa* (Cough)

A. *Vastuka*

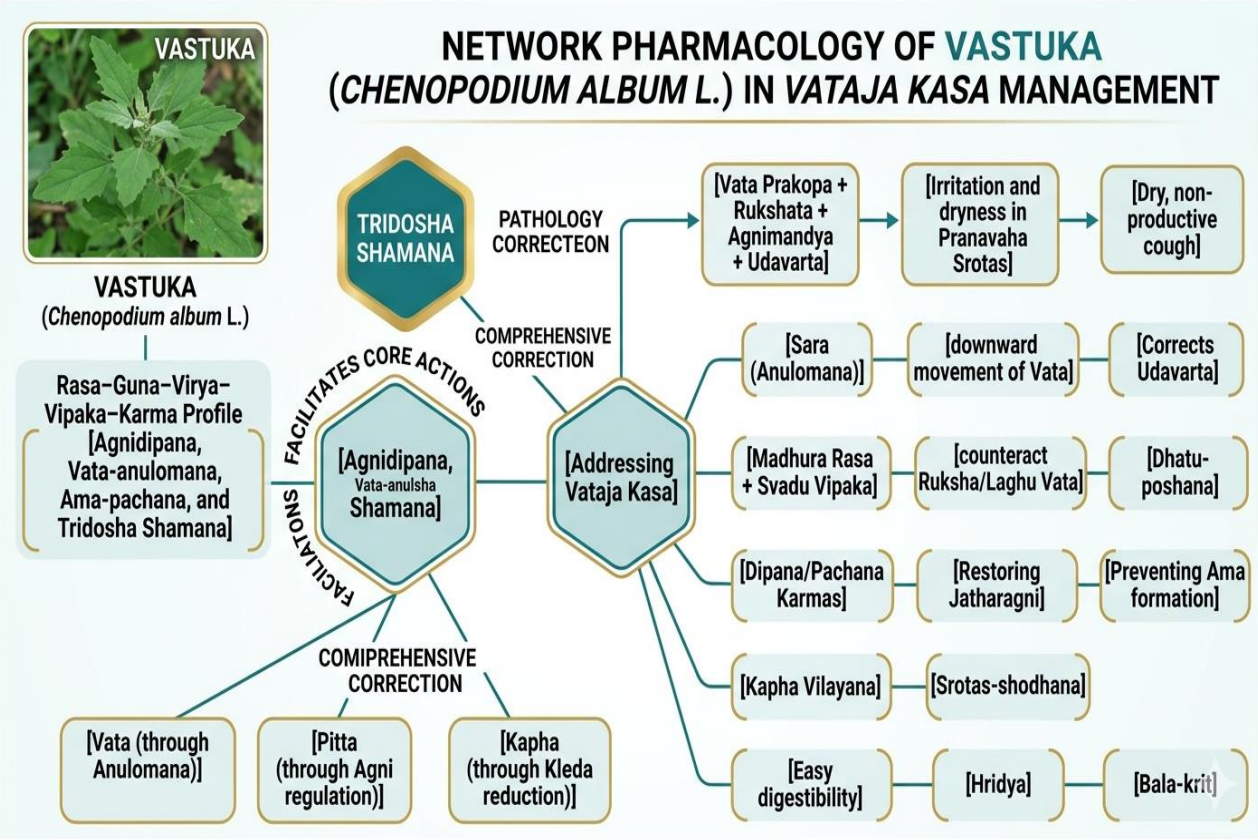

Image 2: Schematic representation of the integration of Ayurvedic concepts with contemporary pharmacological evidence showing *Pathya* effect of *Vastuka* in *Vataja Kasa.*

Ayurvedic concept

दीपनं पाचनं रुच्यं लघु शुक्रबलप्रदम् |सरं प्लीहास्रपित्तार्शःकृमिदोषत्रयापहम् ||6||[23]

वास्तुको मधुरः क्षारः पाके स्वादुः कटुर्लघुः |पाचनो रोचनो हृद्यो मेधाग्निबलशुक्रकृत् ||623||

त्रिदोषकृमिरक्तार्शः प्लीहोदावर्तहा सरः |624|[24]

Stimulates digestion (*Dipanam*), aids digestion (*Pachanam*), improves taste/appetite (*Ruchyam*), light (*Laghu*), and promotes semen and strength (*Shukra-Balapradam*). It is laxative (*Saram*) and alleviates disorders of spleen, blood, *Pitta*, piles, worms, and all three *Doshas* (*Pliha-Asra-Pitta-Arsha-Krimi-Doshatrayapaham*).

Vastuka is sweet (*Madhura*) and alkaline (*Kshara*), sweet in post-digestive effect (*Pake Svadu*), pungent (*Katu*), and light (*Laghu*); it aids digestion (*Pachana*), improves taste (*Rochana*), is beneficial for the heart (*Hridya*), and promotes intellect, digestive fire, strength, and reproductive tissue (*Medha-Agni-Bala-Shukrakrit*). It alleviates disorders of all three *Doshas*, worms, blood disorders, piles, spleen enlargement, and *Udavarta* (*Tridosha-Krimi-Rakta-Arsha-Pliha-Udavarta*), and is laxative (*Sara*).

The therapeutic efficacy of *Vastuka* in the management of *Vataja Kasa* can be understood through its *Rasa–Guna–Virya–Vipaka–Karma* profile, which facilitates *Agnidipana*, *Vata-anulomana*, *Ama-pachana*, and *Tridosha Shamana*, thereby addressing the underlying pathology of dry, non-productive cough. *Vataja Kasa* is primarily caused by *Vata Prakopa* associated with *Rukshata*, *Agnimandya*, and *Udavarta*, leading to irritation and dryness in the *Pranavaha Srotas*, and *Vastuka* acts at multiple levels to correct this condition.

The *Dipana* and *Pachana Karmas* play a central role in restoring *Jatharagni*, thereby preventing *Ama* formation, which otherwise obstructs channels and contributes to *Dosha* imbalance. By ensuring proper digestion and transformation of *Ahararasa*, *Vastuka* supports the formation of *Shuddha Dhatus*, reducing the internal factors that aggravate *Vata* and trigger *Kasa*.

The *Sara* (Anulomana) property is particularly significant in *Vataja Kasa*, as it facilitates downward movement of *Vata*, correcting *Udavarta*, which is a main cause of cough due to upward displacement of *Vata*. By restoring *Vata Gati*, *Vastuka* reduces irritation and spasmodic tendencies in the respiratory tract.

The presence of *Madhura Rasa* and *Svadu Vipaka* contributes to *Dhatu-poshana* and *Vata-shamana*, helping to counteract the *Ruksha* and *Laghu* qualities of aggravated *Vata*. This provides mild internal nourishment and stabilization, reducing dryness in *Pranavaha Srotas* and alleviating cough.

Simultaneously, the *Kshara* and *Katu* components facilitate *Srotas-shodhana* and *Kapha Vilayana*, ensuring that any associated *Kapha Avarana* is cleared, thereby improving airway patency. The *Laghu Guna* supports easy digestibility and prevents further *Srotorodha*, while its *Hridya* and *Bala-krit* properties enhance systemic strength and respiratory efficiency.

Its explicit *Tridosha-hara* action ensures comprehensive correction of *Vata* (through *Anulomana*), *Pitta* (through *Agni* regulation), and *Kapha* (through *Kleda* reduction), making it particularly effective in mixed presentations where *Vataja Kasa* is associated with secondary *Dosha* involvement.

Pharmacological justification

Not found

B. *Kakamachi*

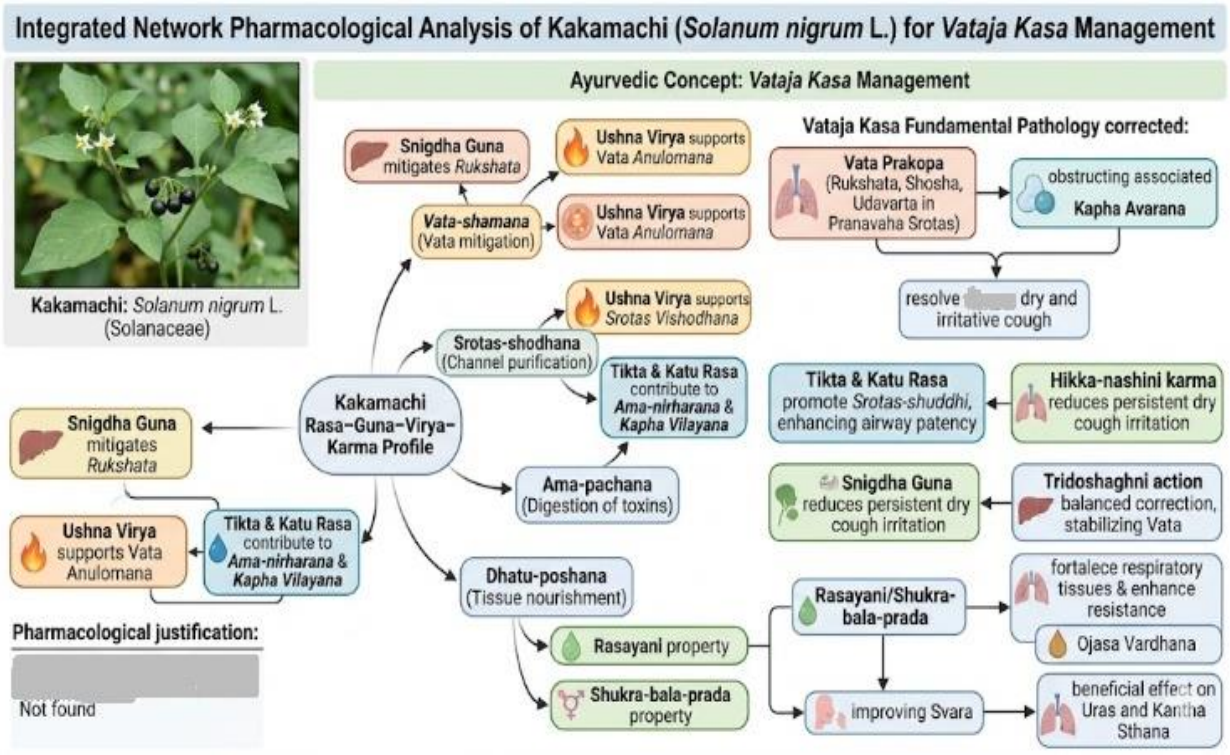

Image 3: Schematic representation of the integration of Ayurvedic concepts with contemporary pharmacological evidence showing *Pathya* effect of *Kakamachi* in *Vataja Kasa*.

Ayurvedic concept

काकमाची त्रिदोषघ्नी स्निग्धोष्णा स्वरशुक्रदा ।तिक्ता रसायनी शोथकुष्ठार्शोज्वरमेहजित् ।

कटुर्नेत्रहिता हिक्काच्छर्दिहृद्रोगनाशिनी ||211||[25]

Kakamachi alleviates all three *Doshas* (*Tridoshaghni*), is unctuous and hot in potency (*Snigdhoshna*), and promotes voice and reproductive tissue (*Svara-Shukrada*); it is bitter (*Tikta*), rejuvenative (*Rasayani*), and alleviates inflammation, skin diseases, piles, fever, and urinary disorders (*Shotha-Kushtha-Arsha-Jvara-Mehajit*). It is pungent (*Katu*), beneficial for the eyes (*Netrahita*), and alleviates hiccup, vomiting, and heart diseases (*Hikka-Chhardi-Hridroganashini*).

The therapeutic efficacy of *Kakamachi* in the management of *Vataja Kasa* can be understood through its *Rasa–Guna–Virya–Karma* profile, which facilitates *Vata-shamana*, *Srotas-shodhana*, *Ama-pachana*, and *Dhatu-poshana*, thereby addressing the fundamental pathology of dry and irritative cough. *Vataja Kasa* arises primarily due to *Vata Prakopa* characterized by *Rukshata*, *Shosha*, and *Udavarta* in *Pranavaha Srotas*, and the pharmacodynamic attributes of *Kakamachi* effectively counteract these processes.

The *Snigdha Guna* plays a crucial role in mitigating *Rukshata* of aggravated *Vata*, providing internal unctuousness that helps soothe the respiratory passages and reduce irritation responsible for persistent dry cough. The *Ushna Virya* supports *Vata Anulomana* and *Srotas Vishodhana*, facilitating proper movement of *Vata* and relieving *Udavarta*, which is a main factor in the pathogenesis of *Kasa*.

The presence of *Tikta* and *Katu Rasa* contributes to *Ama-nirharana* and *Kapha Vilayana*, ensuring that any associated *Kapha Avarana* obstructing the respiratory channels is cleared. This promotes *Srotas-shuddhi* and enhances airway patency, thereby reducing cough reflex sensitivity.

Its explicit *Tridoshaghni* action ensures balanced correction of all *Doshas*, particularly stabilizing *Vata* while preventing secondary *Pitta* and *Kapha* involvement, which is often seen in chronic cough conditions. The *Hikka-nashini Karma* is especially relevant, as it reflects its ability to regulate abnormal *Vata* movements in the upper channels, thereby directly alleviating cough and related spasmodic manifestations.

The *Rasayani* and *Shukra-bala-prada* properties indicate *Dhatu Poshana* and *Ojasa Vardhana*, which strengthen respiratory tissues and enhance resistance, preventing recurrence of *Vataja Kasa*. Additionally, its role in improving *Svara* (voice) reflects its beneficial effect on *Uras* and *Kantha Sthana*, which are directly involved in cough pathology.

Pharmacological justification

Not found

C. *Sunishannaka*

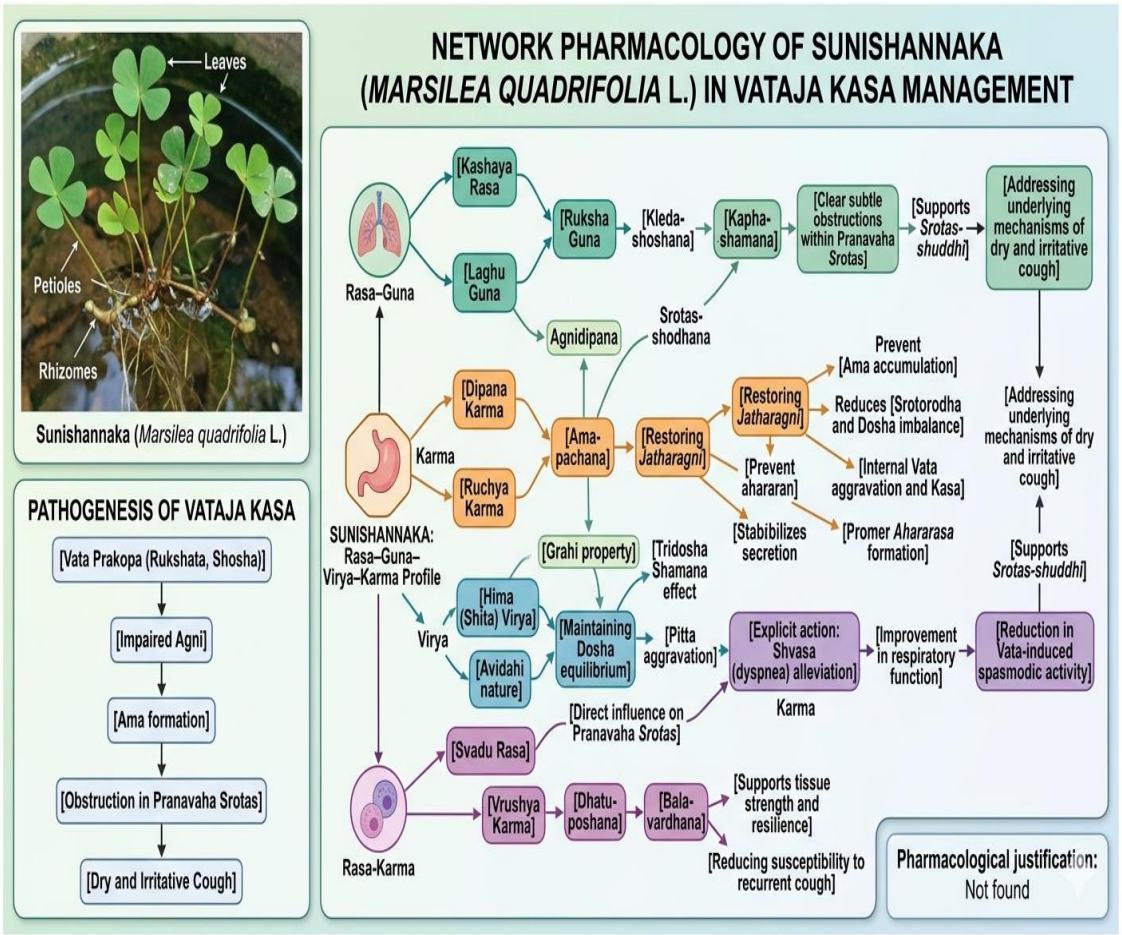

Image 4: Schematic representation of the integration of Ayurvedic concepts with contemporary pharmacological evidence showing *Pathya* effect of *Sunishannaka* in *Vataja Kasa*.

Ayurvedic concept

सुनिषण्णो हिमो ग्राही मोहदोषत्रयापहः |अविदाही लघुः स्वादुः कषायो रूक्षदीपनः |
वृष्यो रुच्यो ज्वरश्वासमेहकुष्ठभ्रमप्रणुत् ||25||[26]

Sunishanna is cooling (*Hima*), absorbent (*Grahi*), alleviates delusion and all three Doshas (*Moha-Doshatrayapaha*); non-burning (*Avidahi*), light (*Laghu*), palatable/sweet (*Svadu*), astringent (*Kashaya*), dry (*Ruksha*), and digestive stimulant (*Dipana*). It is aphrodisiac (*Vrushya*), improves taste/appetite (*Ruchya*), and alleviates fever, dyspnea, urinary disorders, skin diseases, and dizziness (*Jvara-Shvasa-Meha-Kushtha-Bhrama-Pranut*).

The therapeutic efficacy of *Sunishannaka* in the management of *Vataja Kasa* can be understood through its *Rasa–Guna–Virya–Karma* profile, which facilitates *Agnidipana*, *Ama-pachana*, *Srotas-shodhana*, and *Tridosha-shamana*, thereby addressing the underlying mechanisms of dry and irritative cough. *Vataja Kasa* is primarily caused by *Vata Prakopa* associated with *Rukshata*, *Shosha*, and impaired *Agni* leading to *Ama* formation and obstruction in *Pranavaha Srotas*, and *Sunishannaka* acts at multiple levels of this pathogenesis.

The *Dipana* and *Ruchya Karmas* play a central role in restoring *Jatharagni*, thereby preventing *Ama* accumulation, which otherwise contributes to *Srotorodha* and *Dosha* imbalance. By improving digestion and metabolism, it ensures proper formation of *Ahararasa*, reducing the internal triggers for *Vata* aggravation and *Kasa*.

The *Laghu* and *Ruksha Guna*, along with *Kashaya Rasa*, contribute to *Kleda-shoshana* and *Kapha-shamana*, helping to clear subtle obstructions within the *Pranavaha Srotas*. This supports *Srotas-shuddhi*, which is essential in relieving cough associated with channel blockage and stagnation.

Although the *Hima* (*Shita*) *Virya* might appear counteractive in *Vataja* conditions, its *Avidahi* nature and *Tridosha Shamana* effect help in maintaining *Dosha* equilibrium, particularly preventing *Pitta* aggravation that may complicate chronic cough. The *Grahi* property aids in stabilizing excessive secretions and maintaining functional integrity of tissues.

The explicit action in alleviating *Shvasa* (dyspnea) indicates its direct influence on the *Pranavaha Srotas*, suggesting improvement in respiratory function and reduction in *Vata*-induced spasmodic activity, which is central to *Vataja Kasa*.

The presence of *Svadu Rasa* and *Vrushya Karma* contributes to *Dhatu-poshana* and *Bala-vardhana*, supporting tissue strength and resilience, thereby reducing susceptibility to recurrent cough. Its overall *Tridoshatrayapaha* action ensures balanced correction of *Vata* while preventing secondary involvement of *Pitta* and *Kapha*.

Pharmacological justification

Not found

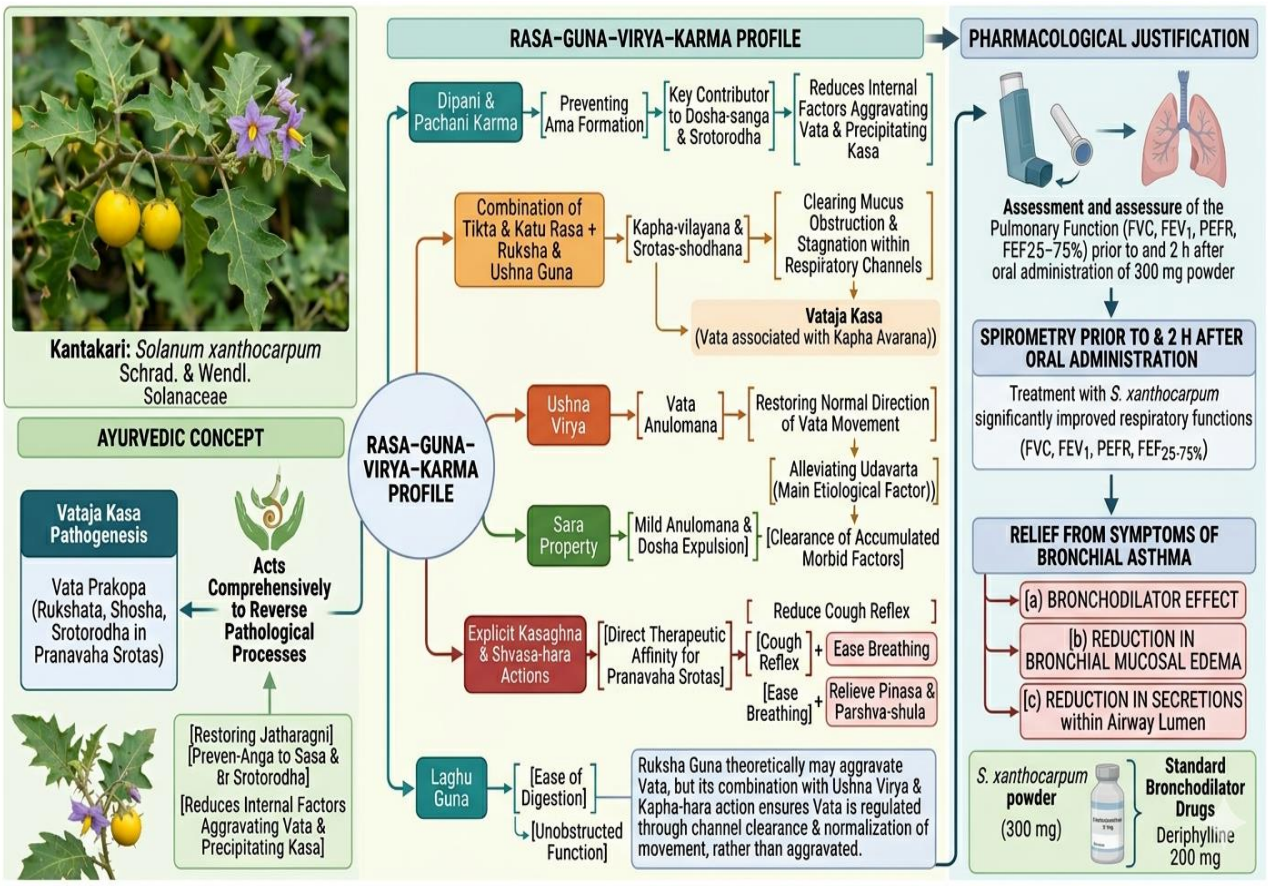

Image 5: Schematic representation of the integration of Ayurvedic concepts with contemporary pharmacological evidence showing *Pathya* effect of *Kantakari* in *Vataja Kasa*

D. *Kantakari*

Ayurvedic concept

कण्टकारी सरा तिक्ता कटुका दीपनी लघुः |रूक्षोष्णा पाचनी कासश्वासज्वरकफानिलान् ||35||

निहन्ति पीनसं श्वासपार्श्वपीडाहृदामयान् |[27]

Kantakari is laxative (*Sara*), bitter (*Tikta*), pungent (*Katuka*), digestive stimulant (*Dipani*), and light (*Laghu*); dry and hot in potency (*Rukshoshna*), digestive (*Pachani*), it alleviates cough, dyspnea, fever, *Kapha*, and *Vata* (*Kasa-Shvasa-Jvara-Kapha-Anilan Nihanti*).

It also relieves rhinitis, dyspnea, pain in the flanks, and heart diseases (*Pinasa-Shvasa-Parshva-Pida-Hrid-Amayan*).

The therapeutic efficacy of *Kantakari* in the management of *Vataja Kasa* can be elucidated through its *Rasa–Guna–Virya–Karma* profile. *Vataja Kasa* is primarily characterized by *Vata Prakopa* associated with *Rukshata*, *Shosha*, and *Srotorodha* in *Pranavaha Srotas*, and *Kantakari* acts comprehensively to reverse these pathological processes.

The *Dipani* and *Pachani Karmas* play a fundamental role in restoring *Jatharagni*, thereby preventing *Ama* formation, which is a key contributor to *Dosha-sanga* and *Srotorodha*. By ensuring proper digestion and metabolic transformation, *Kantakari* reduces internal factors that aggravate *Vata* and precipitate *Kasa*.

The combination of *Tikta* and *Katu Rasa*, along with *Ruksha* and *Ushna Guna*, facilitates *Kapha-vilayana* and *Srotas-shodhana*, effectively clearing mucus obstruction and stagnation within the respiratory channels. This is particularly important in *Vataja Kasa* where *Vata* is often associated with *Kapha Avarana*, leading to impaired airflow and cough.

The *Ushna Virya* further supports *Vata Anulomana*, restoring the normal direction of *Vata* movement and alleviating *Udavarta*, which is a main etiological factor in cough. Simultaneously, the *Sara* property aids in mild *Anulomana* and *Dosha* expulsion, contributing to the clearance of accumulated morbid factors.

The explicit *Kasaghna* and *Shvasa-hara* actions indicate its direct therapeutic affinity for the *Pranavaha Srotas*, helping to reduce cough reflex, ease breathing, and relieve associated symptoms such as *Pinasa* and *Parshva-shula*. Its *Laghu Guna* ensures ease of digestion and prevents further *Srotorodha*, supporting unobstructed respiratory function.

Although *Ruksha Guna* may theoretically aggravate *Vata*, its combination with *Ushna Virya* and *Kapha-hara* action ensures that *Vata* is regulated through channel clearance and normalization of movement, rather than aggravated.

Pharmacological justification

The respiratory functions (FVC, FEV1, PEFR and FEF25-75%) were assessed by using a spirometer prior to and 2 h after oral administration of 300 mg powder of whole plant of either *S. xanthocarpum* or *S. trilobatum*. Standard bronchodilator drugs, salbutamol (4 mg) and deriphylline (200 mg) were used for comparison. Treatment with either *S. xanthocarpum* or *S. trilobatum* significantly improved the various parameters of pulmonary function in asthmatic subjects. Relief from the symptoms of bronchial asthma produced by *S. xanthocarpum* may be due to: (a) a bronchodilator effect, (b) reduction in the bronchial mucosal edema, and/or (c) reduction in the secretions within the airway lumen.[28]

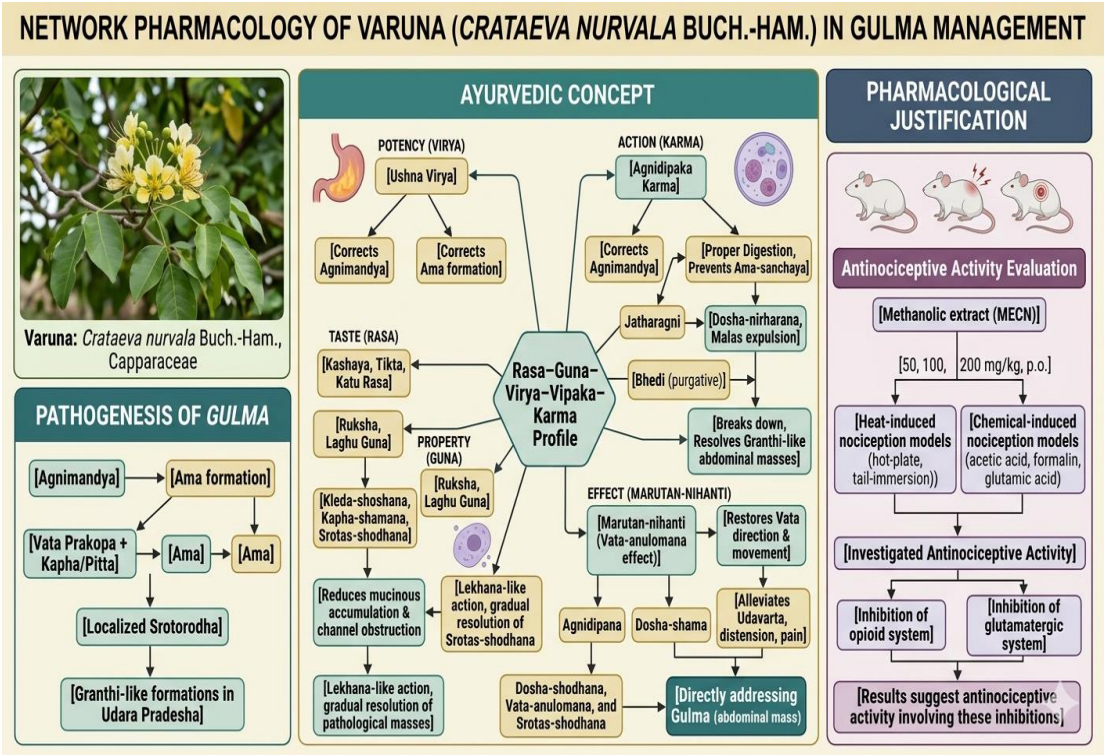

Image 6: Schematic representation of the integration of Ayurvedic concepts with contemporary pharmacological evidence showing *Pathya* effect of *Varuna* in *Gulma*

2. Gulma

A. *Varuna*

Ayurvedic concept

वरुणः पित्तलो भेदी श्लेष्मकृच्छ्राश्ममारुतान् ।निहन्ति गुल्मवातास्रकृमींश्चोष्णोऽग्निदीपकः ।
कषायो मधुरस्तिक्तः कटुकी रूक्षको लघुः ॥54॥[29]

Varuna (*Varuna*) increases *Pitta* (*Pittala*), is purgative (*Bhedi*), and alleviates *Kapha*, dysuria, urinary calculi, and *Vata* (*Shleshma-Krucchra-Ashma-Marutan Nihanti*); it relieves *Gulma*, *Vata* disorders, blood disorders, and worms (*Gulma-Vata-Asra-Krimin*), is hot in potency (*Ushna*), and stimulates digestive fire (*Agnidipaka*). It is astringent (*Kashaya*), sweet (*Madhura*), bitter (*Tikta*), pungent (*Katuki*), dry (*Rukshaka*), and light (*Laghu*).

The therapeutic efficacy of *Varuna* in the management of *Gulma* can be comprehensively understood through its *Rasa–Guna–Virya–Vipaka–Karma* profile, which predominantly facilitates *Agnidipana*, *Dosha-shodhana*, *Vata-anulomana*, and *Srotas-shodhana*, thereby directly addressing the complex pathogenesis of abdominal masses. *Gulma* is primarily caused by *Vata Prakopa* associated with *Kapha*, *Pitta*, and *Ama* leading to localized *Srotorodha* and *Granthi*-like formations in the *Udara Pradesha*, and *Varuna* acts at multiple levels of this pathology.

The presence of *Ushna Virya* and *Agnidipaka Karma* plays a central role in correcting *Agnimandya*, which is the root cause of *Ama* formation. By enhancing *Jatharagni*, *Varuna* facilitates proper digestion and prevents further *Ama-sanchaya*, thereby halting the progression of *Gulma*. The *Bhedi* (purgative) action is particularly significant, as it promotes *Dosha-nirharana* and expulsion of accumulated *Malas*, helping to break down and resolve *Granthi*-like abdominal masses.

The combination of *Kashaya*, *Tikta*, and *Katu Rasa*, along with *Ruksha* and *Laghu Guna*, contributes to *Kleda-shoshana*, *Kapha-shamana*, and *Srotas-shodhana*, effectively reducing mucinous accumulation and channel obstruction, which are main contributors to *Gulma* formation. These *Guna* lso support *Lekhana*-like action, aiding in the gradual resolution of pathological masses.

The *Vata-anulomana* effect (*Marutan-nihanti*) is crucial in *Gulma*, as *Vata* is the primary *Dosha* responsible for the formation and localization of *Gulma*. By restoring the normal direction and movement of *Vata*, *Varuna* alleviates *Udavarta*, distension, and pain, thereby reducing the core features of *Gulma*.

Pharmacological justification

Contemporary evidence reporting antinociceptive activity of *Varuna* offers a plausible explanation for its potential role in alleviating the pain component associated with *Gulma*. However, this relationship remains indirect, as *Gulma* does not have a single established modern disease equivalent and no specific experimental model directly validates its classical therapeutic indication. Accordingly, the antinociceptive activity may be considered supportive symptom-oriented evidence rather than direct pharmacological validation of *Gulma*.

The antinociceptive activity was investigated using heat-induced (hot-plate and tail-immersion test) and chemical-induced (acetic acid, formalin and glutamic acid) nociception models in mice at different doses (50, 100, and 200 mg/kg, p.o.) of Methanol extract of *Crataeva nurvala* (MECN). The results suggest that MECN possesses

antinociceptive activity involving inhibition of opioid system as well as the glutamatergic system supporting its traditional uses.[30]

3. *Jvara* (Fever)

A. ***Patola***

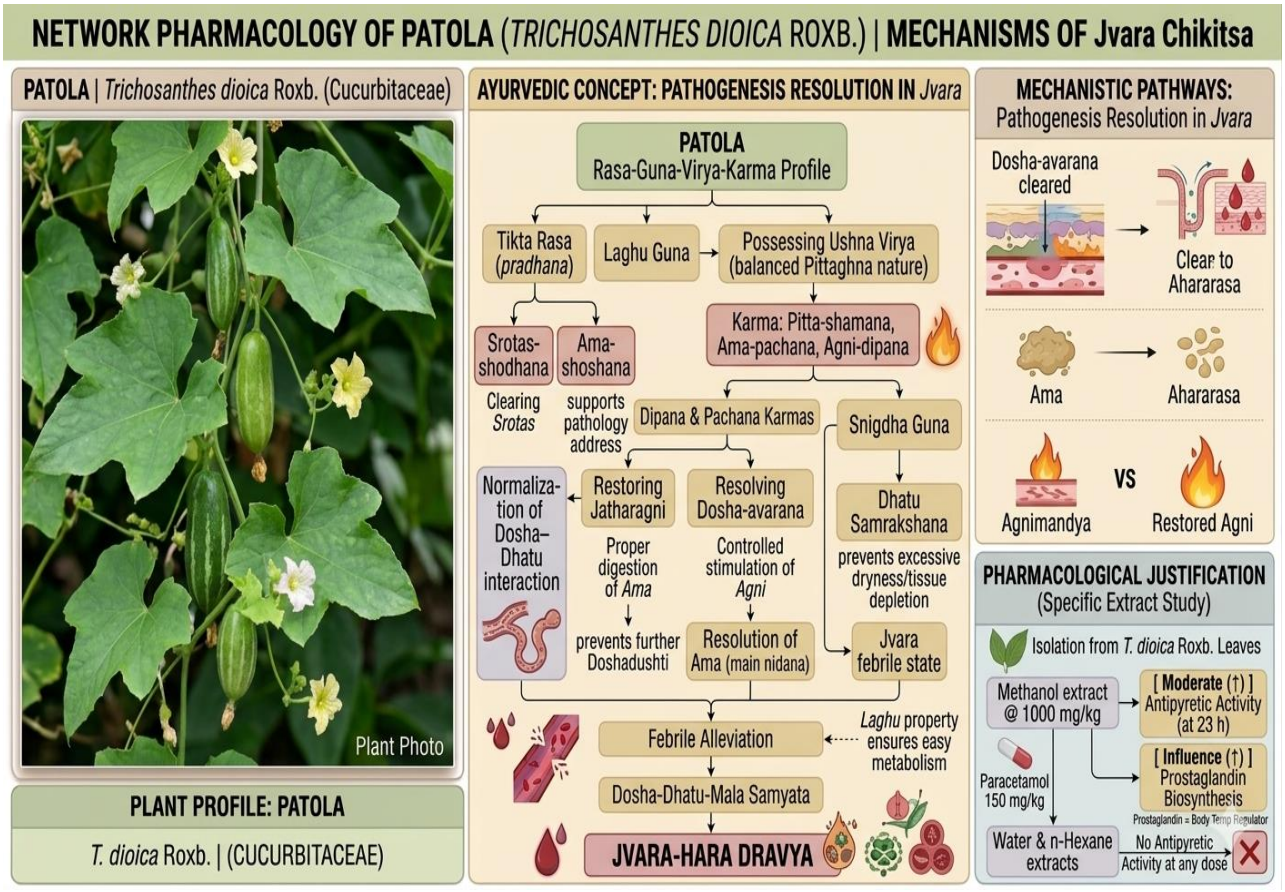

Image 7: Schematic representation of the integration of Ayurvedic concepts with contemporary pharmacological evidence showing *Pathya* effect of *Patola* in Jvara.

Ayurvedic concept

पटोलपत्रं पित्तघ्नं दीपनं पाचनं लघु | स्निग्धं वृष्यं तथोष्णं च ज्वरकासक्रिमिप्रणुत् ||33|| [31]

Patola leaves (*Patolapatram*) alleviate *Pitta* (*Pittaghnam*), stimulate digestion (*Dipanam*), aid in digestion (*Pachanam*), and are light (*Laghu*); unctuous (*Snigdham*), aphrodisiac (*Vushyam*), and hot in potency (*Ushnam*); they alleviate fever, cough, and worms (*Jvara-Kasa-Krimipranut*)

The therapeutic efficacy of *Patola* in the management of *Jvara* can be understood through its *Rasa–Guna–Virya–Karma* profile, which primarily facilitates *Pitta-shamana*, *Ama-pachana*, and *Agni-dipana* - the key principles in *Jvara Chikitsa*. The presence of *Tikta-pradhana Rasa* (implied in *Pittaghna* nature), along with *Laghu Guna*, supports *Ama-shoshana* and *Srotas-shodhana*, thereby addressing the fundamental pathology of *Jvara*, which often originates from *Ama-sanchaya* and *Agnimandya*.

The *Dipana* and *Pachana Karmas* of *Patola* play a central role in restoring *Jatharagni*, leading to proper digestion of *Ama* and preventing further *Doshadushti*. As *Ama* is a main *Nidana* of *Jvara*, its resolution results in normalization of

Dosha–Dhatu interaction and alleviation of febrile manifestations. The *Laghu* property ensures ease of metabolism and prevents additional burden on weakened *Agni* during *Jvara*.

Despite possessing *Ushna Virya*, *Patola* exhibits *Pittaghna* action, indicating a balanced functional effect that regulates *Pitta* without aggravating internal heat pathologically. This suggests its role in *Pitta-janya Jvara*, where controlled stimulation of *Agni* aids in resolving *Dosha-avarana* and clearing *Srotas*. The *Snigdha Guna* contributes to *Dhatu Samrakshana*, preventing excessive dryness and tissue depletion during febrile states.

Thus, through *Agni-dipana*, *Ama-pachana*, *Pitta-shamana*, and *Srotas-shuddhi*, *Patola* effectively breaks the pathogenesis of *Jvara* and promotes return to *Dosha-Dhatu-Malasamyata*, thereby functioning as a potent *Jvara-hara Dravya*.

Pharmacological justification

The methanol extract at a dose of 1000 mg/kg body weight shows moderate antipyretic activity at 23 h, but water and n-hexane extracts do not show antipyretic activity at any dose with respect to the standard drug Paracetamol 150 mg/kg. This result suggested that the plant has some influence on prostaglandin biosynthesis because prostaglandin is believed to be a regulator of body temperature.[32]

This systematic investigation establishes a mechanistic rationale for the therapeutic integration of *Pathya Patrashaka* (wholesome leafy vegetables) by linking traditional nutritional properties to modern biochemical pathways and physiological targets. By mapping these wholesome phytoconstituent interactomes through applied pharmacology, the study provides a molecular basis for classical dietary prescriptions. Ultimately, these findings bridge traditional Ayurvedic dietary principles with empirical evidence, enhancing the clinical precision of integrative nutritional interventions.

CONCLUSION

The review establishes that *Pathya Patra Dravya* constitute a disease-specific component of Ayurvedic management of *Gulma*, *Kasa*, and *Jvara*, with their selection grounded in classical therapeutic principles and *Dosha*-specific considerations. Contemporary pharmacological evidence provides supportive, predominantly indirect correlations with relevant clinical attributes such as pain, inflammation, oxidative stress, and respiratory symptoms, but does not establish direct equivalence with the classical disease entities. Thus, modern evidence should be interpreted as pharmacological plausibility rather than direct validation of the classical indications. Further standardized phytochemical, pharmacological, and clinical investigations are required to determine the therapeutic relevance, dose–response relationships, and clinical applicability of these *Pathya Patra Dravya*.

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