JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

Comprehensive Analysis of the Impact of Ekamoolika Prayogas on Prameha Samprapti

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Abstract:

Aim: Study is intended to understand the role of *ekamoolika dravyas* in combating the *prameha samprapti*.

Introduction: *Prameha* is categorized in *Ayurveda* as a *tridoshaja mahavyadhi*. Ayurvedic texts have documented various *ekamoolika dravyas* with *sarvapramehahara* properties, such as *Guduchi* (with tikta rasa) and *Shatavari* (with madhura rasa). This study aims to explore the effects of these *ekamoolika dravyas* in addressing the *samprapti* of *prameha*, a complex and multifactorial disorder.

Materials and methods: *Ayurvedic* classic texts along with authentic internet sources were referred for updated information on the concepts.

Discussion: *Acharyas* have described various *sarvapramehahara ekamoolika dravyas* for *prameha*, a *tridoshaja mahavyadhi*. This study focuses on the *guna karmas* of these drugs and their effect in combating the *prameha samprapti*.

Conclusion: The core strength of *Ayurveda* lies in its personalized approach in *chikitsa*. By analyzing the specific *samprapti* (pathogenesis) in each patient it is possible to give specific chikitsa , there by effectively halting the progression of the disease faster.

Key words: *ekamoolika ,sarvapramehahara,prameha samprapti.*

Introduction

Ayurveda, as a holistic science of life, adopts a comprehensive approach to health and disease management by prioritizing the individual *(vyadhita*) over the disease itself *(vyadhi).* This approach is categorized into three primary therapeutic measures:

Dosha Pratyanika – interventions targeting the imbalance of doshas.

Vyadhi Pratyanika – therapies aimed at countering the disease as a whole.

Ubhaya Pratyanika – treatments addressing both dosha imbalance and the disease process simultaneously.

These therapeutic strategies are delivered through a wide spectrum of formulations, ranging from single-drug therapies (Ekamoolika Yoga) to complex polyherbal preparations (*Bahu Dravya Kruta Yoga*). Among them, *Ekamoolika Prayoga* stands out as a classical example of *Ubhaya Pratyanika Chikitsa*, as it targets the *Samprapti* (pathogenesis) after a comprehensive assessment of both the disease state and the patient's

constitution. Several *Ekamoolika dravyas* have been described in the classics as *Sarva Prameha Hara*, capable of mitigating various forms of *Prameha*. However, understanding the stage of *Prameha* in which they act, the specific pathological conditions they address, and their relevance to *samprapti vighatana* is essential for delivering effective and precise treatment. Therefore, this article aims to explore the role and mechanistic actions of selected *Ekamoolika dravyas* on *Prameha Samprapti*, with an emphasis on their rational application in clinical practice.

Prameha is classified as a *Tridoshaja Vyadhi*[1] . Despite its classification as a *Mahavyadhi*, several *Ekamoolika Prayoga* (single-drug therapies) are described in the classical *Ayurvedic* texts as effective remedies for managing *Sarva prameha*. These include:

- *Guduchi swarasa* (juice of Tinospora cordifolia) with *madhu* (honey).[2]
- *Aamalaki swarasa* (juice of Emblica officinalis) with madhu.[2]
- *Haritaki* (Terminalia chebula) with madhu.[3]
- *Shatavari swarasa* (juice of Asparagus racemosus).[4]
- *Kataka beeja* (seeds of Strychnos potatorum) with *takra* (buttermilk) and *madhu*.[5]

The effective selection and application of Ayurvedic interventions in *Prameha* requires a comprehensive understanding of its *Samprapti*. By analyzing the sequential pathological changes—including *Doshic* imbalance, *Dhatu* vitiation, and *Srotas* dysfunction—the mechanism of action of various remedies can be logically correlated, thereby strengthening the scientific basis of Ayurvedic management.

Prameha samprapti

A comprehensive review of classical texts such as *Charaka Samhita*, *Sushruta Samhita*, and *Ashtanga Hridaya* reveals that the *Prameha Samprapti* can be summarized into three distinct stages. This analysis provides the foundation for evaluating the targeted action of these *Ekamoolika Prayogas*.

Stage 1: Preparatory Phase

The initial phase of *Prameha Samprapti* represents a subclinical preparatory stage characterized by the generation of *Bahu Drava Sleṣhma* and the transition of *Medas* into an *Abaddha* (non-cohesive) state. *Nidana sevana* initiates *Agni* impairment, leading to early metabolic disregulation of all three doshas[6] in which *Kapha* predominates and *Medas* undergoes progressive vitiation through the *Aśraya–Aśrayi* relationship. At this stage, *srotodushti* has not yet developed, and pathology remains localized to the *Doṣha (Sleṣhma)* and *Dhātu (Medas*).

Clinically, this phase often remains silent, reflecting an asymptomatic or minimally symptomatic metabolic disturbance. Subtle *Kapha Vriddhi* features such as *Agnimāndya, Alasyā, Gauravata* [7] and generalized *Sithilata* may be present, while minor fluctuations in FBS or PPBS may occur in select individuals. However, these biochemical changes are not consistent and may overlap with transient metabolic disturbances seen in *Ajīrna*. Consequently, early detection requires meticulous clinical history, assessment of prodromal indicators, and vigilant monitoring to identify the earliest deviations suggestive of impending *Prameha* progression.

Stage 2 Stage of spread

The second stage of *Prameha Samprapti* is characterized by progression and systemic spread of the pathological process. At this point, a sustained association between *Nidāna, Vikṛta Doṣha,* and *Duṣhya* leads to continuous generation and accumulation of abnormal *kapha* and *medas*, resulting in the rapid *Prakopa* of *Sleṣhma.* The vitiated *Kapha* , spreads to the entire body ,further interacts with *Bahu* and *Abaddha Medas,kleda,mamsa* forming a pathological complex. This represents the critical stage of *Doṣha–Duṣhya*

Sammūrcchana, which in the framework of *Saṭkriyākāla* corresponds to the *Prasāra* and initial stage of *Sthana Samsraya* phase.

Clinically, this is the phase in which *Pūrvarūpa* become more apparent. Vitiation of *Kleda* contributes to symptoms such as excessive sweating and foul body-odour). As *Doṣhita Kapha* combines with *Sārīra Kleda*, *Medas*, and *Māṃsa*, it forms an adhesive pathological amalgam that infiltrates vital channels. This *Liptatā* within the *Netra, Hṛdya* and other *Mārga* is reflected in classical descriptions such as *Hṛn-netra-jihvā-sravaṇa-upadeha*, which is a *Poorvaroopa*[8] ,signifying deeper tissue involvement and an advancing pathological state. From this juncture, the *Samprapti* may proceed via either of two trajectories—via *Kleda* or via *Māṃsa Mārga*.[9]

Stage 3: Stage of Disease Manifestation

When a specific *Nimitta Kāraṇa* initiates the *Samprapti* predominantly through the *Kleda–Mārga,* the vitiated *Kleda,* in combination with *Medas* and *Sleṣhma*, enters the *Mutravaha Srotas* and is expelled through urine. This pathogenic admixture leads to *Prabhūta mutratā* and *Avila Mutrata*, I.e excessive and turbid urine which are the hallmark feature of *Prameha* [10]. The variation in turbidity among patients corresponds to differing proportions of *Doṣha–Duṣhya* involvement. [11]

As this pathological amalgamate is persistently eliminated through the urinary channels, it forms an *Upalepa* (coating) over the inner walls of the *Mutravaha Srotas*. This coating produces gradual *Saṅga* (obstruction) and disrupts both the structure and function of the *Srotas*, ultimately manifesting as *Guru Mukhatā*[9]—a condition in which the urinary passages become heavy, sluggish, and functionally compromised . Over time, this *Srotodushti* progresses to impaired urine flow, increased frequency, and incomplete evacuation, representing advanced *Mutravaha srotas Avarodha*.

This stage represents the full fledged *Sthāna–Saṃśraya* within the *Mutravaha Srotas*, wherein the vitiated *Doṣhas* localize and initiate definitive pathological changes in the urinary channels.

When the same vitiated amalgamation involves the *Māṃsa Dhātu*, it leads to *Māṃsa Duṣṭi* and the formation of *Prameha Piḍakās*, such as *Saravika* and other related cutaneous lesions. These lesions may develop subsequent to, preceding, or concurrently with the *Mutravaha Srotoduṣṭi*, depending on the intensity, sequence, and site of *Doṣha–Duṣhya* interaction.

In *the Aṣṭāṅga Hṛdaya, Vagbhata* describes a similar pathogenic process, emphasizing how śleṣmājā *prameha* can progress *to pittajā and vātaajā prameha*. The transformation occurs when there is significant depletion *(kṣaya) of the śleṣma* complex, accompanied by an increase (*vruddhi) in pitta and vāta*, driven by causative factors . The depletion of the śleṣma complex serves as the primary precursor for the development of *both pittajā* and *vātaajā* types of prameha.[12]

Drugs used for ekamoolika prayoga

DRAVYA	BOTANICAL NAME	FAMILY	KALPANA	ANUPANA/SAHAPANA
Guduchi	Tinospora cordifolia	Menispermaceae	Swarasa	Madhu
Aamalaki	Embilica officinalis	Euphorbeaieae	Swarasa	Madhu
Haritaki	Terminalia chebula	Combretaceae	Swarasa	Madhu
Shatavari	Asparagus racemosus	Liliaceae	Swarasa	Ksheera
Kataka beeja	Strychnos potatorum	Loganiaceae	Beeja churna	Takra and madhu

Pharmacological actions of the *Ekamoolika Prayogas* .

DRAVYA	RASA	GUNA	VEERYA	VIPAKA	KARMA	DOSHAGHNATA
Guduchi	Katu tikta	Guru snigda	Ushna	Madhura	Rasayani,sangrahini, agni deepani	Tridoshahara
Amalaki	Amla pradhana lavana varjita shad rasa	Rooksha and laghu	Sheeta	Madhura	Chaksusya,sara, rakta pitta hara,pipasa hara	Tridoshahara
Haritaki	Lavana varjita shad rasa	Laghu rooksha	Ushna	Madhura	Deepana paachana , vividha srotovibandha hara	Tridoshahara
Shatavari	Tikta and madhura	Guru	Sheeta	Madhura	Hrudya, netrya, balya	Vatapittahara
Kataka beeja	Kashaya Katu tikta	Guru	Ushna	Madhura	Chedana ,seersha and netravikara hara	Vatakapha hara

1.Guduchi –

This *Dravya* is predominantly *Tikta* and *Katu* rasa in profile and exhibits *Dīpana, Pācana*, *Rasāyana* and *Saṅgrāhī* properties, with an ability to absorb and reduce deranged *Drava* in the system. Owing to these attributes, it is indicated in conditions such as *Jvara, Kamala, Pāṇḍu, Kuṣṭha,* and *Vātarakta,* suggesting its primary therapeutic influence on the *Antara* and *Madhyama roga Mārga*.

The dominance of *Tikta* rasa is particularly relevant in the context of *Prameha*, as classical texts describe its actions as *Kleda-Medo-Vasa-Majjā-Shakṛt-Mūtra Upaśoṣaṇa*. All these entities—*Kleda, Medo, Vasa*, and *Majjā*—are key *Duṣyas* implicated in the pathogenesis of *Prameha.*Its action is more pronounced in the rasavaha srotas. Thus it promotes *upaśoṣaṇa* and reduces excess *Drava-Rūpi Kleda* in the *Rasa Dhatu* and directly counters one of the central pathological components of the disease process. This part of the *Samprapti* which is dormant in the first stage with no signs ,manifests itself with *Poorava Roopas* in the second stage.

Research articles – A clinical study on *Guducchi Satva* (starch obtained from stem of Tinospora Cordifolia) in *Madhumeha* w.s.r to diabetes mellitus type ll.

The result of this study is as follows

In this study The drug *Guduchi sattava* was given along with diet & exercise in 25 case of *Madhumeha* which show a better result in all parameters than the group treated with only diet & exercise. It has more effect on fasting glucose level then post prandial glucose. There are three major pathways to control blood glucose level- Inhibition of gastro-intestinal glucose absorption, Regulation of glucose metabolism, Increase urinary clearance of glucose. Regulation of glucose metabolism is performed mainly by, Insulin replacement, Increase insulin secretion, Increase insulin sensitivity or inhibition of hepatic glucose output. In fasting state hepatic glucose output contribute a important role to blood glucose level, whereas after food ingestion, insulin is secreted and hepatic glucose output is inhibited. Generally Insulin sensitizer are the drugs which regulate hepatic glucose output, have good effect on fasting hyperglycemia. Insulin secretion enhancer, control post prandial hyperglycemia by early phase insulin release. According to previous experimental study on Guduchi, it has a role to control hepatic glucose output. An experimental study on Guduchi Sattava in non diabetic animal model also shows its effect in fasting glucose level where as it is ineffective in post prandial glucose . As fasting glucose level markedly depend on hepatic glucose output, Guduchi sattava may have some effect on hepatic glucose metabolism or insulin sensitivity as per clinical data obtained in this study also.[13]

2. *Aamalaki*

This *Amla-Pradhāna, Lavaṇa-Varjita Pancha rasa Dravya* exhibits *Tridoṣa-Shamaka* action with a specific influence on *Meda, Kleda* and *Sveda* metabolism. Its *Jvarahara, Sophahara, Aśmarī-Sharkarā hara, Pramehahara* and *Amlapittahara* properties support its use in both *Bahya* and *Abhyantara Rogamārga*. Owing to its *Sīta Vīrya* and *Kapha-hara* nature, it reduces the *Pitta*-mediated *Bahu-Drava Kapha* formation. Additionally, its *Raktapitta-Hara* effect makes it suitable in *Prameha* stages with *Rakta Duṣṭi* or *Pitta Vṛddhi* resulting from depletion of the *Sleṣmaja* complex, as highlighted in the *Vāgbhaṭa Samprāpti*.

By promoting *Baddha Meda Utpatti*, it reduces *Sveda*—the *Mala* of *Meda*—and preserves the integrity of *Asthi Dhatu* , thereby maintaining the health of *kesha,mala of asthi dhatu* and thus preventing *Poorva Roopas* such as *Jaṭilata of Kesha, Deha-Sithilata* and *Ati sveda and Deha Dourgandhya*. Its *Sara* and *Rasāyana* effects further eliminate accumulated waste and restore tissue integrity.

In the below illustrated case as well, its *Shita Vīrya* contributed to the relief of *Pittaja* symptoms such as *Dāha* and *Pipāsa*.

Research article

A case study on *Amalaki Swarasa* (*Phyllanthus embilica*): A potential single drug intervention in management of *Prameha*.(Diabetes mellitus).

This study reported a significant reduction in *pittaja* symptoms *like Pada Daha, Brama, Trusna etc.*

This case study concluded that *Aamalaki Swarasa* given for one month to a diabetic patient with high glucose levels exhibits significant results in decreasing the blood glucose levels.[14]

3. Haritaki

This *Lavaṇa-varjita Pancha Rasa Dravya* is described by *Achaarya* Caraka as "*Vividha Srotobandha-hara*," highlighting its ability to alleviate various forms of *Srotas* obstruction. In the second stage of *Prameha Samprāpti*, *Medas* amalgamates with *Sleṣma* and spreads through the *Srotas* (*sañcārāvasthā*), producing *Upalepa*, clinically represented as *Hṛd-Netra-Jihvā Upadeha* as described by Vāgbhaṭa. At this stage, *Harītakī* serves to mitigate *Srotorodha* and restore patency of the channels.In the third stage of *Samprapti, Sleṣma–Meda–Kleda* obstruction within the *Mutravaha Srotas* leads to pronounced *Sroto-Rodha*,

described by Caraka as "*Guruṇi Mukhani Asadya*." *Haritakī* remains relevant here as well.Its *dīpana* and *pacana* properties support transformation and clearance of pathological *Meda-Kleda Saṅghata*, while its *Kaṣhaya Rasa* helps reduce *Kleda* and improves fluid balance.

From a biomedical perspective, *Harītakī* has demonstrated hypoglycemic and metabolic benefits, with studies indicating improved pancreatic function and increased insulin secretion, which complements its classical *Dipana–Pachana* role.

Research article

Comparative Study

Long-term effects *of Terminalia chebula* Retz. On hyperglycemia and associated hyperlipidemia, tissue glycogen content and in vitro release of insulin in streptozotocin induced diabetic rats.

This study showed that Oral administration of ED of aqueous extract of T.chebula (AETC) daily once for two months reduced the elevated blood glucose by 43.2% ($p<0.01$) and significantly reduced the increase in glycosylated hemoglobin (hba1c).[11]

The in vitro studies with pancreatic islets showed that the insulin release was nearly two times more than that in untreated diabetic animals.[15]

4. *Shatavari*

Shatavari is recognized as a *Rasāyana* and *Bālya Dravya* with predominant *Madhura* and *Tikta Rasa*, and *Netrya* and *Hṛdya* properties. The combination of these *Rasas* helps reduce *Vāta* and *Kapha Doṣha* and enhances tissue strength. In *Prameha* management,as it is considered a *Sreṣṭha Rasāyana*, supporting the principle *"Meheshu Santarpaṇam Eva Kāryam"*, it can act as a *Santarpaka* agent after adequate *Doṣha-Pācana*.

Prameha is characterized by *Upalepa* within the *Srotas*, ultimately predisposing to structural and functional tissue damage. With its *Hṛdya* and *Netrya* actions, *Shatavari* contributes to protecting and restoring the integrity of vital tissues affected during the disease process, particularly in the cardiovascular and ocular systems.*Shatavari* (*Asparagus racemosus*) is also indicated in *Hasta-Pada-Daha*, a classical *Purvarupa* of *Prameha*.

Phytochemically, *Shatavari* contains saponins, β-sitosterol, and sarsasapogenin, which may contribute to its immunomodulatory, antioxidant, and tissue-protective effects, providing a scientific basis for its traditional *Rasāyana* and *Prameha*-modulating activities.

Research article- Effects of Saponins on Lipid Metabolism: A Review of Potential Health Benefits in the Treatment of Obesity

The hypoglycemic action of saponins seems to be due to different mechanisms of action, such as the restoration of the insulin response, the increase of plasma insulin levels and the induction of the release of insulin from the pancreas .[16]

5. *Kataka*

Kataka bīja possesses *Kaṭu–Tikta rasa* and exhibits *Kapha-Sāmaka* action due to its *Chedaṇa* property, which facilitates the disintegration and elimination of deeply adhered *Kapha* and associated pathological metabolites. Its *Netrya* property additionally supports ocular health and the clearance of *Upalepa* in the ocular channels.

Furthermore, the findings of the referenced research article indicate that *Kataka* may have a protective effect on the structural and functional integrity of the *Mūtravaha srotas*,

Research articles

Evaluation of nephroprotective activity of katakabeeja yoga against aspirin-induced nephrotoxicity in wistar rats

This study showed that tubular congestion, peritubular inflammation, Tubular necrosis in the Kidney showed more damage in the Aspirin group (+++) when compared to the Katakabeeja Yoga group (++). Cytoplasmic vacuole, glomerular congestion, interstitial haemorrhage showed mild damage in the Aspirin group (++) when compared to the Katakabeeja group (+). Interstitial oedema, widening of Bowmen space (+) but is not present in Katakabeeja Yoga group.[17]

Antidiabetic effect of seeds of strychnos potatorum linn. In a streptozotocin-induced model of diabetes

This study concluded that the ability of Strychnos potatorum Linn. To improve the glycemic response of STZ induced diabetic rats, along with its proven minimal toxicity indicates that it has promising antidiabetic activity meriting further pharmacological consideration.[18]

Discussion

After comprehensively analyzing the samprapti (pathogenesis) of Prameha and the guna–karma profile of the selected Ayurvedic drugs, it becomes evident that, although these formulations are collectively described as *sarva-pramehahara*, each intervention acts at a specific juncture of the disease continuum. Therefore, it is essential to delineate which drug acts at which stage and on which component of the pathogenic cascade**.**

- Tracing *Guduchi's* impact along the first stage of the *Samprapti*, when *Vikṛta Doṣas* begin to form, the *Dipana–Pacana* action of *Guduchi* can arrest further progression by facilitating efficient *doṣa pācana*. At this stage, *Auṣadha Kala* may be selected as *Sāmana Kāla* (administration between meals), to regulate the production of *Doṣhas* arising from impaired digestion and metabolism. In stage 2 *Samprapti* it majorly does *Upashoshana* of *Meda* and *Kleda* complex and prevents disease progression . *Aoushada Sevana Kala* for this purpose would be *Vyana Kala* i.e morning after food.

- The pharmacodynamic profile of *Aamalaki* is most relevant in the second stage of *Prameha Samprāpti*, characterized by *Dūṣita Meda-Kleda* amalgamation. When combined with *Pācaka Dravyas* such as *Haridrā* or *Guḍūcī*, it enhances *Pācana* of pathological *Meda-Saṅghāta* and supports *Dhātu* integrity. In this phase, administration during *Vyāna-Kala* (morning, after food), is appropriate.
- *Harītakī* demonstrates therapeutic relevance in the second and third stages of *Samprāpti*. During the second stage, characterized by *Upalepa* (coating or obstruction) in vital channels such as *hṛdaya* and related *Srotas*, administration of Harītakī in *Vyāna Kāla* supports metabolic clearance. In the third stage, where *Saṅga* (obstruction) occurs in the *mūtravaha srotas*, its administration in *Apāna kāla* aids in clearance of the channels and restoring the patency.
- Based on the progression of *Prameha Samprapti*, *Shatavari* is particularly beneficial in the second and third stages, where it contributes to the restoration and maintenance of tissue integrity. Its use at these stages supports both symptom management and structural recovery, aligning with its *Rasāyana* and tissue-protective properties.
- In the third stage of samprapati, therapeutic agents that can break down viscid accumulations and restore patency of the channels are indicated. In this context, *Kataka Bīja* serves as a rational intervention due to its *Srotoshodhana* and *Chedaṇa* effects, aiding in removal of adherent pathological material and re-establishing unobstructed flow.The probable *Auṣadha sevana kāla* for targeting the *Mūtravaha srotas* would be Apana kala (before food)**.**Additionally, for ocular *Upalepa*, *Nishi Kala* administration is appropriate.

Conclusion

Charaka emphasizes that the efficacy of treatment lies not only in the selection of appropriate *dravya* but also in their proper administration, considering factors such as *maatra* and *kaala.* Successful outcomes are inherently dependent on the application of *yukti* (rational judgment). Therefore, a practitioner skilled in *yukti* is regarded as superior to one possessing knowledge limited *to dravya* and formulations.

Thus a physician who is well versed in *samprapti* of a disease with respect *to sushrutokta shat kriya kalas* is capable of using *ekamoolika prayogas* which is ultimately safe and economical.

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