

REVIEW OF PHARMACOKINETICS AND PHARMACODYNAMICS ACTION OF LAGHUMALINI VASANT RASA

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ABSTRACT

Laghumalini Vasant Rasa is mentioned in *Yoga Ratnakara* under the treatment of *Jwara Chikitsa*. Fever or Pyrexia is a common symptom response to infection, inflammation, and tissue damage. There are many types of fever mentioned in *Ayurveda*. It can be associated with infection, inflammation, neoplastic or drug related. Now we are trying to write hypothetical review of *Laghumalini Vasant* mentioned in *Jwara Chikitsa*. We are reviewing pharmacodynamic and pharmacokinetic action of *Laghumalini Vasant* on stages of *Jwara* mentioned in *Phalashruti* of drug.

KEYWORDS: *Laghumalini Vasant*, *Jwara*, Fever.

INTRODUCTION

Laghumalini Vasant is renowned *Vasant Kalpa* that comes under *Kharliya Rasayana*. Herbal drugs and *Rasa dryava* used in *Kharaliya Rasayana* induced the oraganic quality in the final product for its better therapeutic efficacy and reduced toxic effect.

Laghumalini Vasant has been mentioned under *Rasa yoga* section. As per reference *Rasaka* and *Maricha* are the basic ingredients in 2:1 proportion while *Navneet* and *Nimbu Swarasa* are levitating media (*Bhavana Dravya*).

Laghumalini Vasant is a well-known *Vasant Kalpa* which is a herbo-mineral combination *Kalpa* mentioned in *Yoga Ratnakara Jwara Chikitsa*.^[1] The *Phalashruti* of *Laghumalini Vasant Rasa* stated that it treats *Jirna Jwara* and *Dhatugata Jwara*. Therefore, I am presenting my article on hypothetical review on pharmacokinetic and pharmacodynamic action of *Laghumalini Vasant Rasa*.

MATERIAL AND METHOD

Laghumalini Vasant Rasa is a herbo-mineral drug that contains *Rasak*, *Maricha*, fresh *Navneet*, and *Nimbu Swarasa* as *bhavana dravya*^[2] which helps to increase the potency of *Laghumalini Vasant Rasa*.

Study of the ingredients and the drug gives the knowledge about breaking *samprapti* of disease. We used reference as various *samhita* and published articles.

Study design

1. The Pharmacokinetic action of *Laghumalini Vasant Rasa*
2. The Pharmacodynamic action of *Laghumalini Vasant Rasa*

Pharmacokinetic action of *laghumalini vasant rasa*

- Dose: 2 *Ratti*^[3]
- Route of administration - Orally
- *Anupan – Madhu + Pippali*^[4]
- Indication – *Jirna jwara, Dhatugata jwara*^[5]

Name of Drug	Latin name	Rasa	Virya	Vipaka	Guna	Karmukta
<i>Rasaka</i> ^[6]	Zinc sulphate	<i>Amla, Lavana</i>	<i>Shita</i>	<i>Amla</i>	<i>Guru, Singdha, Picchila</i>	<i>Balya, Vrishya, Twachya</i>
<i>Marich</i> ^[7]	Piper Nigrum	<i>Katu</i>	<i>Ushna</i>	<i>Katu</i>	<i>Laghu Ushna</i>	<i>Vata-kaphagha</i>
<i>Nimbu</i> ^[8]	Citrus limon	<i>Amla</i>	<i>Ushna</i>	<i>Amla</i>	<i>Tikshna Laghu</i>	<i>Ama, jwara, Trishna</i>
<i>Navneet</i> ^[9]	Fresh Butter	<i>Madhur</i>	<i>Ushna</i>	<i>Madhur</i>	<i>Snigdha, Drava,</i>	<i>Balya, Rushya, Rasayana</i>

Rasaka^[10]

Rasaka is a zinc carbonate/ore of zinc. The chemical formula of Zinc is $ZnCO_3$. Zinc has

1. Immuno modulation properties – Enhances immune cell function of T-cell macrophages. It activates natural killer cells and regulates cytokines production (IL-2, IFN- γ).
2. Anti-inflammatory action – inhibits pro-inflammatory cytokines (TNF- α , IL-1 β).
3. Anti-oxidant effect – scavenges free radicals and protects against lipid peroxidation and also maintains glutathione levels.
4. Fever reduction properties – regulates hypothalamic thermoregulation, prostaglandin synthesis, and enhances heat shock protein expression.

Marich^[11]

Marich has anti-inflammatory and anti-oxidant properties. It contains hemicellulose which has immunomodulatory and anti-inflammatory properties. It has potential anti-oxidant like Titanium oxide. It induces sweating and helps reduce fever. It also improves blood circulation for better metabolism.

Nimbu^[12]

Lemon contains citric acid and vitamin C. It is used in metabolism action. It acts as *Rakta-Pitta Prashamn*, *Trushna Nigrahan*, *Jwara Hara*.

Navneet^[13]

It means fresh butter. Freshly prepared butter is *grahi*, *laghu*, and *medha vardhak*. It has *Rakta-Pitta Nashak*, *Viryavardhak*, *Balavardhak* action.

Pharmacodynamic action of *laghumalini vasant*

Jwara^[14]

Dosha – Pachaka pitta

Dushya – Rasa dhatu

Strotovikruti – Rasavaha strotasa, Swedavaha strotasa

Udhbhavasthan – Aamashaya

Sanchar – Rasayani

Adhishthana – Deha, Indriya, Mann

Vyaktisthana – Twak

Ama and Agnimandya

Ama and *Agnimandya* is reduced with the help of *marich* and *bhavna* of *Nimbu Swarasa*. *Rasaka* is useful for *dipan pachan*.

Dhatugat jwara

In *Dhatugat Jwara* there is *Pliha Vrudhi*, *Rasagat Jwara*, *Agnisad*, mild fever. Its symptoms are burning sensation of palms and feet, dryness of skin, pallor, and mild swelling. Here *Laghmalini Vasant Rasa* is very useful as it is *Vasant Kalpa*. It is useful for chronic *Agnisad* or *Aglinga Daourbalya*. *Rasaka* acts as a *Rasayana*. *Navneet* is *balya* which helps to reduce the symptoms of *Agnisad*.

Sweadavaha strotas avarodha

As the human skin pores are closed, the body heat dissipation is not on optimum level leading to increased body temperature in fever. To dissipate the increased body heat, skin pores must be opened, and be allowed to regulate the rising temperature. This is called as Diaphoretic action. It increases the sweating and the decreases the temperature of human body. Thereby decreases the symptom.

DISCUSSION

All ingredients in *Laghmalini Vasant Rasa* have a mix of *Ushna* (hot) and *Sheeta* (cooling) *Virya* (potency). This combination is effective in balancing aggravated *Pitta* and *Kapha doshas*, especially beneficial in managing fevers (*Jwara*) arising from *Pitta* and *Kapha* disturbances. *Rasaka* is known for its *balya* (strengthening), *rasayana* (rejuvenating), and *rasashuddhikaraka* (purifying properties), which support overall immunity. *Maricha* (black pepper) acts as a *dipak* (appetizer), *pachak* (digestive), and *jwarahara* (fever-reducing), helping in the metabolic correction and reduction of fever. Additionally, *Navneet* (butter) provides *balya* (nourishment) and enhances nutrient absorption, supporting the body during recovery.

The components in *Laghmalini Vasant Ras*, especially *Rasaka* (Zinc Bhasma) and *Maricha*, are traditionally utilized to manage *Pitta* and *Kapha* related disorders and are considered effective for chronic fever, inflammation, and enhancing vitality. *Navneet* (butter) also helps modulate the heating effect of other ingredients, allowing balanced administration suitable for fever conditions associated with *Pitta*.

Rasaka enables it to act in the *Aamashaya* and also induces diaphoretic action, helping to reduce raised body temperature. *Maricha* aids in the recovery from electrolyte imbalance caused by sweating and also helps to treat *aama* and *agnimandya*, thus disrupting the

progression of *jwara samprapti*. *Trikatu* is also effective in treating *vaata* and *kapha*, which are the primary causes of *sannipataja jwara*.

The use of *Nimbu swarasa* (Lemon juice) enhances the drug's effectiveness through synergistic activity. The sequential application of *bhavana* (Processing) with *Nimbu swarasa*, followed by *Navneet* (Butter), is designed to balance *Kapha*, *Pitta*, and *Vata* during different phases of digestion. This approach aids in addressing *Agnisad* (Weak digestion) conditions. Additionally, *Laghumalini Vasant* can be utilized in cases of *Pandu* (Anemia) caused by *Shita Jwara* (Chronic cold-related fever). In managing *Pandu*, a combination of *Laghumalini Vasant* and *Mandur Bhasma* is beneficial for restoring strength and supporting blood health.

Different articles on *Laghumalini Vasant Rasa* were reviewed and studied to understand previously done study on *Laghumalini Vasant Rasa*.

CONCLUSION

Laghumalini Vasant Rasa is a valuable *Vasant-kalpa* for managing *Jirna-jwara* (Chronic fever). Due to its *Ushna* ingredients, it is particularly effective in treating *Vaat-Kaphaj Jwara* (Fever dominated by *Vata* and *Kapha doshas*). For enhanced efficacy through synergistic action, it can be administered with *Ushnodaka* (Warm water), *Madhu* (Honey), and *Pippali* (Long pepper) as *Anupana*. Although this formulation has theoretical support, clinical studies are required to evaluate and confirm the efficacy of *Laghumalini Vasant Rasa* in practice.

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