



A CRITICAL REVIEW OF *AVALEHA KALPANA* WITH SPECIAL REFERENCE TO *BIBHITAKAVALEHA*

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ABSTRACT

Avaleha Kalpana is also known as *Leha* or *Rasakriya*. This review critically examines theoretical foundations of *Avaleha Kalpana*, its procedural aspects and therapeutic relevance with special reference to *Bibhitakavleha* drawing from texts like *Sharangdhara Samhita*, *Charak Samhita*, *Bhavprakash Nighantu*, *Yogratnakar* etc. It is semisolid preparation of herbal drugs prepared in decoction or extracts of different herbs by adding sweetening agents like sugar (*sharkara*), jaggery (*guda*), honey (*madhu*) and ghee (*ghrita*). The compound drugs used in the preparation of *Avaleha* are aqueous medium, substrate, *Oushadhi dravyas*, lipid medium, additives etc. Consistency of various *Avaleha* varies from freely flowing to paste-like, semisolid or granular form, which depends upon the substrate and *Oushadhi churna* ratio. These formulations offer long shelf-life, ease of administration, and are particularly suitable for pediatric, geriatric, and chronic care. The article explores formulation rationale, preparation methodology and clinical applications. The review underscores the importance of deeper textual engagement and standardization to ensure the continued efficacy and authenticity of classical Ayurvedic pharmaceuticals.

KEYWORDS : *Avaleha Kalpana*, *Bibhitakavleha*, *Bibhitaka*, *Goumutra*, *Sharkara*, *Kwatha*.

INTRODUCTION:

According to *Sharngadhara Samhita*, *Avaleha* is a semisolid formulation where decoctions (*Kwatha*) or herbal juices (*Swarasa*) are concentrated with sugar/jaggery, followed by addition of fine powders (*churna*) and ghee/oil to improve palatability, preservation and absorption.

The classical Ayurvedic system emphasizes holistic and patient-friendly approaches. *Avaleha Kalpana*, also known as *Leha* or *Rasakriya*, is a prominent formulation prepared by processing herbal decoctions with sweetening agents like jaggery (*guda*), sugar (*sharkara*), honey (*madhu*), and ghee (*ghrita*). These formulations offer long shelf-life, ease of administration, and are particularly suitable for pediatric, geriatric, and chronic care.

Bibhitakavaleha is a lesser-known but therapeutically potent *Avaleha* centered around *Bibhitaka* (*Terminalia bellerica*), a fruit which is known for its *Kashaya* (astringent) taste, *Kapha-Pittahara* action, and *Rasayana* (rejuvenative) potential. This review aims to provide a focused critique of *Avaleha Kalpana*, while evaluating *Bibhitakavaleha*'s pharmacological, clinical and therapeutic perspectives.

MATERIALS AND METHODS:

This review is based on qualitative textual analysis of classical Ayurvedic manuscripts including:

- *Sharangadhara Samhita* (*Madhyam Khanda*, Chapter 9 - *Avaleha Kalpana*) (1)
- *Chakradatta - Kasa Chikitsaparakaranam*.
- A Textbook of Bhaishajya Kalpana Vijyanam by G Prabhakar Rao - *Avaleha Kalpana*.
- *Charaka Samhita* by Agnivesha (*Sutrasthana*; Chapter 28), Chaukhamba Publication, 2017;
- *Bhavprakash Nighantu*, Chaukhamba Prakashan (*Haritkyadivarga*)
- *Yogratnakar - Avaleha Kalpana, Avaleha Viryakala*.
- Secondary sources include peer-reviewed Ayurvedic journals and the *Ayurvedic Pharmacopoeia of India*. (8) (9)

Method: (4)

1. Preparation of *Kwatha/Swarasa*
2. Addition of *Sharkara/Guda*
3. Boiling till *Avaleha Siddhi Lakshana* (proper consistency)
4. Incorporation of *Prakshepa Dravyas* (fine powders)
5. Addition of *Ghrta* and *Madhu*.

Avaleha paka Lakshana⁽⁴⁾

1. *Tantumatva* – (Thread-like appearance)

When a small portion of *Avaleha* is taken between two fingers and stretched, it should form thin, continuous threads without breaking immediately. It is similar to 'string test' in modern candy-making.

2. *Apsu Majjati* – (Sinking in water)

A drop of cooled *Avaleha* is placed in cold water. Instead of dissolving or dispersing, it sinks and settles at the bottom intact. It shows correct semisolid consistency and absence of raw moisture.

3. *Sthiratva* – (Stability of contents of *Avaleha*)

After cooling, *Avaleha* becomes stable, thick and non-flowing. It neither remains too watery (*Apakva*) nor becomes hard like candy (*Dagdhapaka*), Ensures good storage stability.

4. *Angulimudra* – (Impression of fingerprints)

When pressed between fingers, *Avaleha* retains the impression (*mudra*) for some time. It indicates proper viscosity and semisolid texture.

5. *Gandhoubhava* – (Aroma development)

At proper stage during the preparation process, a pleasant characteristic aroma of the herbal drugs, jaggery/sugar, and added *dravyas* (ghee, honey, etc.) emerges.

6. *Varnoubhava* – (Colour development)

Avaleha attains a uniform characteristic colour (usually brown to black depending on drugs). Raw light colour indicates *Apakva* stage, blackish colour indicates *Dagdhapaka*.

7. *Rasaudbhava* – (Taste development)

Proper *paka* balances the herbal *rasa* with sweetness of jaggery/sugar/honey. Should taste pleasant and palatable, without excessive bitterness or burnt taste. It ensures therapeutic acceptability and compliance.

Advantages:

1. Improved palatability and acceptability Longer shelf-life (3 years).
2. Increased bioavailability via *Anupana* like ghee/honey
3. Acts as both *Rasayana* and *Vyadhihara* (disease-curative).
4. Standardization varies in raw materials, preparation time, and heating practice

Textual References:

Avaleha Nirman Vidhi :-

'काथादीनां पुनःपाकात् घनत्वं सा रसक्रिया।

सोवलेहश्च लेहः स्मात् तन्मात्रा स्मात् पलोन्मिता ॥8/1'.....[शा.सं.म.8/1](1)

Avaleha siddhi lakshana :-

‘सुपके तन्मुत्तं स्मादवलेहोऽप्यु मज्जति।

स्थिरत्वं पीडिते मुद्रागन्धवर्णरसोद्भवः।।’[शा.सं.म.8/3].....शा.सं.म.8/3]

While *Bibhitakavaleha* is not extensively mentioned as an individual formulation in *Bhaishajya Ratnavali*⁽²⁾ or *Sharngadhara Samhita*, it may appear under formulations for *Kasa*, *Shwasa*, *Arsha*, or *Grahani*, where *Bibhitaka* is a key component. It's often integrated into polyherbal *Avalehas*.

***Bibhitakavaleha* -**

‘प्रस्थं बिभीतकानामनस्थ्यां हि साधयेद्वामूत्रे। मधुसहितः श्वासकासहरः॥’[ग.नि.प्रयोगखण्डे

लेहाधिकारः ॥६१॥]

Probable Indications: *Shwasa* (Asthma), *Kasa* (Cough), *Grahani* (IBS-like disorders), *Arsha* (Hemorrhoids), General *Rasayana* (Rejuvenation).

Classical Examples Of Avaleha Kalpana:

Sr No.	Name	Uses
1.	<i>Chyawanprash</i>	<i>Rasayana</i> , respiratory tonic
2.	<i>Agastya Haritaki Avaleha</i>	Chronic cough, Asthma.
3.	<i>Vasavaleha</i>	Productive cough, Bronchitis
4.	<i>Drakshavaleha</i>	Liver tonic, strength enhancer
5.	<i>Bibhitakavaleha</i>	Kapha disorders, <i>Shwasa-Kasa</i>

RESULTS:-

Drug Review –

***Bibhitakavaleha* :-**

‘प्रस्थं बिभीतकानामनस्थ्यां हि साधयेद्वामूत्रे। मधुसहितः श्वासकासहरः॥’[ग.नि.प्रयोगखण्डे

लेहाधिकारः ॥६१॥]

Sr No	Raw drugs	Ratio
1.	<i>Bibhitaka</i> Fruit <i>Bharad</i> (Without seeds)	1 Part
2.	<i>Gomutra</i>	16 Part
3.	Honey	1 Part

Drug Details –⁽³⁾⁽⁵⁾

Sr No	Drugs	Latin Name	Family	Part Used
1.	<i>Bibhitaka</i> Fruit <i>Bharad</i> (Seedless)	<i>Terminalia bellerica</i> (<i>Gareth.</i>) <i>Roxb.</i>	Combretaceae	Fruit
2.	<i>Gomutra</i>	-	-	<i>Mutra</i>
3.	Honey	-	Apidae	

Therapeutic Attributes of Ingredients:⁽⁵⁾

Sr No.	Drug	Rasa	Guna	Vir ya	Vipak	Karma
1.	<i>Bibhitaka</i> (<i>Terminalia bellerica</i>)	<i>Kashaya</i> (Astringent)	<i>Laghu</i> , <i>Ruksha</i>	<i>Shita</i>	<i>Madhura</i>	<i>Kaphara</i> , <i>Kashahara</i> , <i>Shwasahara</i> , <i>Deepana</i> , <i>Anulomana</i> , <i>Rasayana</i> , <i>Arshohara</i> ,
2.	<i>Gomutra</i> (Cow's urine)	<i>Katu</i> (Pungent), <i>Tikta</i> (Bitter), <i>Kashaya</i> (Astringent)	<i>Laghu</i> , <i>Tikshna</i> , <i>Ushna</i> , <i>Ruksha</i> , <i>Sara</i>	<i>Ushna</i>	<i>Katu</i>	<i>Shodhana</i> , <i>Krimighna</i> , <i>Kapha-vatahara</i> , <i>Medohara</i> , <i>Vatanulomana</i>
3.	<i>Madhu</i> (Honey)	<i>Madhura</i> (Sweet), <i>Kashaya-amurasa</i> (astringent aftertaste)	<i>Laghu</i> , <i>Ruksha</i> , <i>Vishada</i>	<i>Shita</i>	<i>Madhura</i>	<i>Yogavahi</i> , <i>Kaphahara</i> , <i>Kashahara</i> , <i>Shwasahara</i> , <i>Rasayana</i> , <i>Lekhgana</i> , <i>Raktaprasadana</i> , <i>Vranaropana</i>

Clinical relevance of *Bibhitakavaleha*:

Antioxidant, Antimicrobial, and Anti-inflammatory activities of *Bibhitaka*, have been validated in modern pharmacology.

A. Antioxidant properties of *Bibhitaka*:⁽¹¹⁾

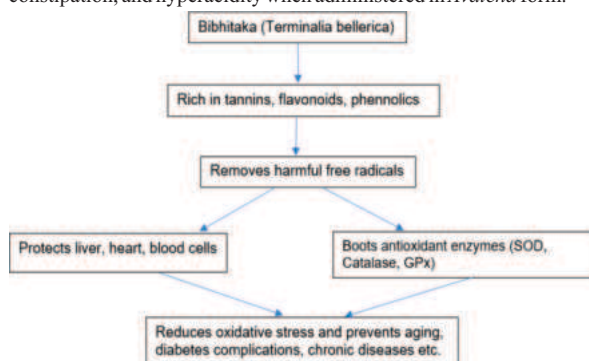
- Bibhitaka* fruits contain many natural compounds like tannins, flavonoids and phenolics which act as strong antioxidants.

- These antioxidants remove harmful free radicals from the body, which are chemical that can damage cells and cause diseases.

Studies show that *Bibhitaka* helps by:

- Protecting the liver from damage caused by toxins.
 - Improving blood antioxidant level by increasing enzymes like superoxide dismutase and catalase.
 - Reducing oxidative stress in diabetes and other chronic conditions.
- Because of these actions, *Bibhitaka* is useful in preventing aging effects, liver problems, heart disease, diabetes complications, and other disorders linked with oxidative damage.
 - In short *Bibhitaka* works like a natural shield against oxidative stress, keeping body cells healthier and slowing damage caused by free radicals.

Limited studies show its efficacy in bronchial asthma, chronic constipation, and hyperacidity when administered in *Avaleha* form.



B. Antimicrobial properties of *Bibhitaka*:⁽¹²⁾

1) Antibacterial : *Bibhitaka* can stop the growth of harmful bacteria like *E. coli*, *Staphylococcus*, *Salmonella*, and *Pseudomonas*.

2) Antifungal : It works against disease causing fungi such as *Candida* and *Aspergillus*.

3) Antiviral : Some studies shows that it can slow down viruses like influenza and herpes.

In short; *Bibhitaka* acts like a natural germ fighter. It protects against bacteria, fungi and some viruses, which is why it is used in Ayurveda for infections of throat, lungs, skin and wounds.

C. Anti-inflammatory properties of *Bibhitaka*:⁽¹³⁾

1) Reduces swelling: *Bibhitaka* helps bring down puffiness or edema in the body.

2) Eases pain : It soothes pain linked with inflammation, like in joints or wounds.

3) Calms heat and redness : Works against the body's extra heat during infection or injury.

4) Stops inflammation chemicals: Its antioxidant effect prevents further damage to cells during inflammation.

In short; *Bibhitaka* acts like a natural anti-inflammatory medicine, i.e. It reduces swelling, pain, redness, and protects tissues from further harm.

DISCUSSION:

Rasashastra and *Bhaishajya Kalpana* is a specialized branch of Ayurveda. In *Rasashastra* metal contents are more used in preparation of medicine, and in *Bhaishajya Kalpana* herbal contents are more used to prepare medicines.

Swarasa, *Kalka*, *Kwatha*, *Hima*, *Fanta* are basic *Kalpana* of *Bhaishajya Kalpana*. Each and every medicinal formulation can be included under the term *Kalpana*. Some other types of medicinal formulations are *Sneha Kalpana*, *Sandhan Kalpana*, *Avaleha Kalpana*, *Mashi Kalpana*, etc. are described.

In *Avaleha Kalpana* the procedure of making *Avaleha* and after making of *Avaleha* its *Siddhi Lakshanas* are also important. **If the sugar content of the *Avaleha* is less than 67% to 70%, then the *Avaleha* may get susceptible to fungal infestation.** Because of sugar, honey, ghee, jaggery used as *Prakshep Dyavya* it is more palatable and popular than the other formulations.

Bibhitaka also has antibacterial. Antimicrobial and anti-inflammatory properties. *Bibhitaka* due to its antioxidant properties of its compounds, i.e. tannins, flavonoids and phenolics, removes free radicals which in turn protects organs resulting in prevention of disease. It has broad spectrum antimicrobial properties due to its rich tannins and polyphenols, making it effective against bacteria, fungi and even some viruses. *Bibhitaka* due to its anti-inflammatory properties helps reduce swelling, pain, and heat in the body. Its natural chemicals calm down the substances that cause inflammation, making it useful in arthritis, wounds, cough, throat infection and other inflammatory problems.

Bibhitakavleha due to its Kashaya Rasa, Madhura Vipaka, Ushna Veerya and Laghu, Ruksha Guna plays a major role in relieving disorders like Kasa and Shwasa. Kasa is a disease of Pranavaha stratas. It may develop as an independent disease, symptom or complication. Ayurveda has described many herbomineral formulations for management of Kasa. One of such formulation *Bibhitakavleha* is mentioned in Gadanigraha. *Bibhitakavleha* is proven to be effective in relieving symptoms of Kaphaja Kasa.

CONCLUSION:

Avaleha Kalpana is one of the most patient friendly, therapeutically powerful and organoleptically acceptable dosage forms in Ayurveda. Its methodical preparation, stability, enhanced absorption (via ghee/honey) make it ideal for chronic, respiratory, and geriatric care.

Bibhitakavaleha, though not widely popularized formulation, holds strong potential in managing *Kapha* and *Pitta* disorders due to the multifaceted properties of *Bibhitaka*. A scientific and standardized approach towards its formulation, supported by clinical validation, can enhance its application in modern Ayurvedic practice. Bridging classical wisdom with modern pharmaceutical techniques will ensure both therapeutic efficacy and global acceptability of such formulations.

However modern pharmaceutical adaption (like sugar-free versions, sachets and standardization) can make it more globally accepted.

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