

# Formulation and Evaluation of Shwasantak Vati: An Ayurvedic Approach to Antiasthmatic Therapy

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**Abstract:** *Shwasantak Vati is a traditional Ayurvedic formulation it is primarily used to manage respiratory ailments, particularly chronic bronchitis, asthma, and other pulmonary disorders. The various plant-based components in this polyherbal formulation are thought to have expectorant, bronchodilator, and anti-inflammatory properties.*

**Objective -** *Its objective is to help in the management of conditions link to the respiratory system, for example bronchitis, cough, asthma, and other ailments involving the lungs. The vati also known as tablet works by promoting proper airflow, reducing inflammation in the airways, and soothing the respiratory tract. The mixture of ingredients helps to balance the doshas, particularly Vata and Kapha, which are frequently linked to respiratory problems.*

**Method -** *The formulation was made in a standard way, and its physical properties, like how it looks, smells, tastes, and feels, were looked at. Modern pharmacological methods were used to look at the chemical composition to see if there were any active ingredients that could help the respiratory system heal. A clinical trial was conducted involving individuals suffering from respiratory ailments to evaluate the therapeutic outcomes of Shwasantak Vati*

**Result -** *It indicated that the formulation provided significant relief from respiratory symptoms, improved lung function, and reduced the frequency of exacerbations, showcasing its potential as an effective Ayurvedic remedy for respiratory health.*

**Discussion -** *The purpose of this article is to discuss the potential effects of Shwasantak Vati, its role as a complementary treatment in contemporary respiratory care, and the factors to consider when using it on a variety of patient demographics..*

**Keywords:** Shwasantak Vati, Ayurvedic formulation, respiratory disorders, asthma, chronic bronchitis, pulmonary function, bronchodilator, anti-inflammatory

## I. INTRODUCTION

Asthma is a chronic inflammatory lung disease, affecting a significant portion of the global population, leads to symptoms such as wheeziness, cough, difficulty in breathing and tightness of chest. The World Health Organization (WHO) estimates that over 300 million people worldwide are currently living with asthma, and this number is on the rise, particularly in urban areas where exposure to environmental pollutants and allergens is more common. Factors such as increased industrialization, urbanization, and lifestyle changes contribute to the growing prevalence of asthma, making it a pressing public health concern. While conventional treatments, including inhalers and corticosteroids, can provide relief from acute symptoms, they often do not address the underlying factors contributing to the disease. (1) This gap in treatment has led many individuals to seek alternative therapies that offer a more holistic approach to health and well-being.

Ayurveda, a traditional system of medicine with roots in India that spans thousands of years, offers a unique perspective on health. (2) It emphasizes the importance of balance within the body and recognizes the intricate connections between physical health, mental well-being, and environmental influences. (3) Central to Ayurvedic philosophy is the concept of the three doshas—Vata, Pitta, and Kapha—which represent different energies that govern physiological functions. An



imbalance among these doshas is believed to lead to various health issues, including asthma. Among the various Ayurvedic formulations, Shwasantak Vati is particularly noteworthy for its focus on respiratory health, specifically targeting asthma, which is referred to as 'Tamaka Swasa' in Ayurvedic texts. (4) This formulation reflects the core principles of Ayurveda, aiming to restore harmony among the three doshas.

In Ayurveda, asthma is not merely seen as a respiratory issue; it is understood as a manifestation of deeper imbalances within the body. An aggravation of the Vata and Kapha doshas is often linked to the onset of asthma symptoms. (5)

Shwasantak Vati aims to address these imbalances through a thoughtfully selected combination of natural ingredients, each chosen for its specific therapeutic properties that support respiratory health. (4) Ingredients commonly found in Shwasantak Vati may include herbs known for their anti-inflammatory, bronchodilator, and expectorant effects.

This formulation is part of a broader approach that includes dietary changes, lifestyle modifications, and practices such as yoga and Pranayama (breathing exercises) to promote overall well-being. The combination of these practices not only aids in managing asthma symptoms but also strengthens a deeper connection between the mind and body, which is essential for overall health. For example, Pranayama techniques can improve lung capacity and enhance respiratory function, providing patients with tools to manage their condition more effectively. (6)

The formulation of Shwasantak Vati is grounded in centuries of Ayurvedic knowledge, drawing from a rich tradition of herbal medicine. While specific clinical research on Shwasantak Vati may be limited, many of its individual components have been studied for their anti-inflammatory, bronchodilator, and expectorant effects. (7)

Recent studies have highlighted the potential of herbal remedies in managing the chronic conditions like asthma, reinforcing the relevance of Ayurvedic treatments in contemporary healthcare. For example, research has shown that certain Ayurvedic herbs can modulate immune responses and reduce airway inflammation, which are critical factors in asthma management.

As asthma rates continue to rise, particularly due to modern lifestyle changes and environmental factors, the need for effective and sustainable treatment options becomes increasingly important. (8)

Many patients are becoming more aware of the limitations and side effects of conventional therapies, leading to a growing interest in integrative approaches that combine the strengths of both conventional medicine and traditional healing systems like Ayurveda. (9) Shwasantak Vati exemplifies this integrative approach, offering a natural solution that aligns with the principles of holistic health.

Shwasantak Vati represents a significant advancement in the Ayurvedic approach to managing asthma. By addressing the root causes of the condition and promoting balance within the body, this formulation aims not only to relieve symptoms but also to enhance the overall quality of life for individuals suffering from respiratory issues. The potential benefits of Shwasantak Vati extend beyond symptom management; they may also include improved lung function, reduced frequency of asthma attacks, and enhanced overall vitality. As research continues to explore the effectiveness of Ayurvedic treatments, Shwasantak Vati serves as a compelling example of how ancient wisdom can inform modern health practices.

In this present research work, formulation and evaluation of Shwasantak Vati as an ayurvedic approach for anti-asthmatic treatment is studied. It aims to further investigate the potential of Shwasantak Vati as a viable option for asthma management, and assess how effective and high quality this traditional formulation is in managing asthma and its symptoms. The evaluation includes organoleptic properties, physical evaluation and phytochemical analysis, all of which are important for confirming the quality and safety of Shwasantak Vati as a viable treatment for asthma.

## **II. AIM AND OBJECTIVE**

### **AIM**

Formulation and Evaluation of Shwasantak Vati an ayurvedic approach for anti-asthmatic treatment aims to create stable, safe and effective herbal product as Vati. The formulation process, assess the pharmacological properties of its ingredients, and investigate the formulation's efficacy in managing asthma symptoms. The evaluation process helps to ensure that the Shwasantak Vati is of high quality, effective, safe, and compatible with the body, while allowing for the full utilization of the therapeutic benefits of the Shwasantak Vati. (1)



## OBJECTIVES

The formulation and evaluation of Shwasantak Vati aiming to achieve following objectives: -

**Formulation Development:** To develop a standardized formulation of Shwasantak Vati used traditional principles and practices.

**Quality Assessment:** To evaluate the organoleptic properties of Shwasantak Vati to ensure it meets quality standards and conduct physical evaluation, including parameters such as moisture content, pH, ash content, etc.

**Phytochemical Analysis:** To perform phytochemical screening of the individual ingredients in Shwasantak Vati to identify active compounds responsible for its therapeutic effects.

**Safety and Compatibility:** To ensure the Shwasantak Vati is safe for use, doesn't cause any adverse effects and compatible with various body types.

**Stability and Shelf Life:** Creating a stable formulation that maintains its efficacy and properties over time, ensuring a reasonable shelf life for the product.

**Literature Review:** To conduct a comprehensive review of existing literature on Ayurvedic treatments for asthma, highlighting the relevance and potential of Shwasantak Vati in contemporary healthcare. (2) (3)

## III. BENEFITS OF SHWASANTAK VATI

- Enhances Respiratory Fitness Helps clear congestion and supports easier breathing. useful for asthma, bronchitis, and persistent coughing. Reduces Reactions to Allergies Acts as an anti- allergic agent, calming down excessive immune responses like sneezing, wheezing, or skin irritation.
- Strengthens the Lungs.
- Helps to tone and strengthen lung tissues, improving their function over time.
- Becomes an Expectant Helps in expelling phlegm and mucus from the respiratory tract naturally.
- Enhances Immunity Many of its ingredients also work to enhance general immunity and
- resistance to infections.
- Helps in Breathlessness and Wheezing.(4)

## 3.1 DEMERITS OF SHWASANTAK VATI

- Problems with the digestive system: It may cause mild stomach discomfort, acidity, or diarrhea in sensitive individuals.
- Body overheating: Herbs like Pippali (long pepper) can make the body hotter inside, which can cause things like mouth ulcers, excessive thirst, and burning sensations.
- Allergic reactions: Allergic symptoms like a rash, itching, or swelling may occasionally occur.
- Not recommended for use during pregnancy: Some of the ingredients may not be safe for women who are pregnant or breastfeeding unless they are carefully prescribed by a doctor.
- Drug interactions: It may interact with current diabetes, hypertension, and asthma medications.
- Dependency: Continuous unsupervised use may lead people to avoid necessary modern medical treatments.(4)

## IV. FORMULATION OF SHWASANTAK VATI

TABLE 1 : FORMULATION OF SHWASANTAK VATI

SR NO.	INGREDIENTS	COMPOSITION
1	Baheda	11.6 gms
2	Amla	11.6 gms
3	Black manuka	11.6 gms
4	Bora seeds	11.6 gms
5	Vaividang	11.6 gms
6	Pippali	11.6 gms



7	Pohakar Mul	11.6 gms
8	Honey	11.6 gms
9	Sugar	11.6 gms
10	Loha Bhasma	93.28 gms
11	Somkalpa churna	116.6 gms

## V. METHODOLOGY AND PROCEDURE

Sufficiently weight and grind all of the ingredients separately in mortar and pestle until finely powderd, Then pass through a sieve No. 12



In order to make vati (tablet) mix all the sieve ingredients in a given quantity and make the thick paste of it



While mixing the ingredients, add the ginger juice in it and also add honey and make the thick paste



Then make the vati of the mixture, dry it and store it in a glass bottle

## VI. EVALUATION

### 6.1 HARDNESS

The force needed to crush a tablet in a diametric compressive force test is known as tablet hardness. It shows the amount of resistance required to endure mechanical shocks during the handling, packaging, and shipping operations. Each tablet us degree of hardness was assessed. use a Monsanto hardness tester independently. Next, a measurement The mean hardness of the ten



Fig 1: Monsanto Hardness Tester. [1]

### 6.2 FRIABILITY

The compacted tablet our ability to resist breaking and cracking during transit is known as friability. Ten pills' friability was calculated. This device rotates the pills, putting them under tension and abrasion. inside a plastic cylinder at 25 rpm, which lowers the tablets by six inches every time it rotates. A previously weighted The friabilator was filled with a sample of tablets, which was 100 times over.



Fig 2: Friability Tester. [2]



### 6.3 DISINTEGRATION TIMES-

The disintegration time is the amount of time needed for tablets or capsules to break down correctly. The duration indicates how quickly a solid (a pill) dissolves into a solution and how quickly the drug is taken up. There were six pills in every compartment of the dissolution apparatus, and the tablets were heated to a 37°C in temperature. The tablets were intended to have passed the test after six of them were able to do so. the apparatus's mesh in fifteen minutes



Fig 3: Dissolution Tester [3]

### 6.4 DETERMINATION OF PH VALUE-

A sample of powder weighing roughly 5 grams was dissolved in 100 milliliters of water in a glass beaker. The beaker had been kept at ambient temperature for the entire day with It was covered with aluminum foil. Following the supernatant solution's been transferred to an alternative beaker, the pH value of the formulation was assessed using an electronic pH gauge that had been calibrated metre

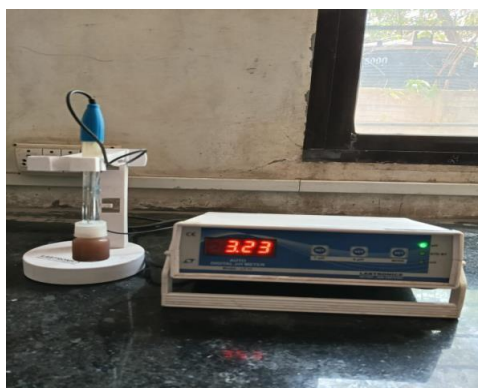


Fig 4: pH Meter [4]





## VII. RESULT

SR.NO	DESCRIPTION	RESULT
1	Colour	Dark Brown
2	Hardness	3.9
3	Friability	0.12%
4	Dissolution	15Min
5	pH	3.23

TABLE 2: Organoleptic Characteristics and Physicochemical Evaluation of Shwasantak Vati



Fig 5: Shwasantak Vati [5]

## VIII. CONCLUSION

In conclusion, when used properly, Shwashantak Vati is a safe and efficient herbal medicine.

- Physician advice is crucial for the best outcomes and safety, nevertheless, as it is crucial to customize its use to each patient's Prakriti (body constitution), disease severity, and other clinical circumstances.
- This medication strengthens the lungs, increases respiratory endurance, clears mucus buildup, lessens airway inflammation, and eases breathing difficulties. It also revitalizes lung tissues and boosts immunity. When taken over an extended length of time under the supervision of an Ayurvedic practitioner, Shwashantak Vati functions as a preventive therapy as well as a symptomatic relief.
- Therefore, in accordance with the core Ayurvedic principles of addressing the underlying cause and preserving bodily balance, Shwashantak Vati continues to be a useful and comprehensive treatment for people looking for natural management of both acute and chronic respiratory problems.

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