

# An International Journal of Research in AYUSH and Allied Systems

Case Study

# REVITALIZING BREATH: AYURVEDIC INSIGHTS INTO BRONCHIAL ASTHMA MANAGEMENT VIA VAMANA KARMA

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#### Article info

# ABSTRACT

Article History: Received: 26-11-2024 Accepted: 15-12-2024 Published: 15-01-2025

#### **KEYWORDS:**

Bronchial Asthma, Tamaka shwasa, Pranavaha srotas, Vamana karma, Madanaphala pippali yoga.

Bronchial Asthma is a disease characterized by episodic airway obstruction and hyper responsiveness, accompanied by airway inflammation. Bronchial Asthma is compared with Tamaka Shwasa that affects the Pranavaha Srotas and characterized by Deergha shwasa, Ghurgurka, Shwasa krichhrata, which is Pranaprapeedaka in nature. It is a Kaphavataja *Vyadhi* for which *Vamana Karma is* said to be the best line of treatment, specifically in *Vega* kaala. Material and methods- In this case, a 33-year-old female patient who is not a known case of diabetes mellitus or hypertension, but a known case of bronchial asthma, complained of wheezing, chest tightness, and breathing difficulty for past one year, Vamana Karma was administered to the patient with Madanaphala pippali yoga. Assessment was done on symptoms of Tamaka Shwasa and Bronchial Asthma along with serum IgE levels before and after the treatment. Results- Significant reduction in clinical symptoms like wheezing, chest tightness and breathing difficulty along with serum IgE levels were noted after Vamana Karma. Conclusion- Panchakarma offers a comprehensive approach to detoxification, particularly for complex and chronic condition like Tamaka Shwasa. Vamana Karma is essential for addressing the underlying pathology, by effectively eliminating the vitiated doshas from the body and subsequently incorporating the Shamanoushadhi can enhance their recovery and significantly reduce the likelihood of relapse.

### **INTRODUCTION**

Bronchial asthma is a chronic respiratory disorder marked by intermittent airway obstruction, inflammation and hyperresponsiveness<sup>[1]</sup>. This condition significantly impacts quality of life and can lead to severe health complications. Globally, asthma affects approximately 200 million people and accounts for around 0.2 million deaths annually, with more than 15 million individuals impacted in India alone<sup>[2]</sup>. Patients with asthma typically experience recurrent symptoms such as wheezing, breathlessness, chest tightness, and cough particularly during night time or early morning. These symptoms can be aggravated by



various triggers including allergens, respiratory infections and environmental irritants<sup>[3]</sup>. The pathophysiology of asthma involves a complex immune response. Upon exposure to allergens, there is an activation of inflammatory cells such as mast cells, eosinophils, and T lymphocytes. A critical aspect of this process is the elevation of immunoglobulin E (IgE) levels in the body, which play a pivotal role in sensitizing these cells to allergens. The elevated IgE levels suggest an allergic component, where immunemediated inflammation plays a crucial role. The subsequent degranulation of mast cells and basophils releases inflammatory mediators including histamines, leukotrienes and prostaglandins. These substances contribute bronchoconstriction. to airwav inflammation and excessive mucus production<sup>[4]</sup>. These inflammatory mediators have role in both the immediate and late-phase allergic responses. The immediate response to allergen exposure results in acute bronchospasm, while the late-phase response involves the recruitment of additional inflammatory cells, leading to prolonged airway inflammation and potential remodeling. Such structural changes can cause permanent alterations in airway function, exacerbating the severity of asthma and increasing the frequency of exacerbations. Understanding these mechanisms is vital for developing effective targeted therapies and improving asthma management.

Tamaka Shwasa is a condition that closely parallels bronchial asthma in modern medicine, attributed to imbalance of *Kapha* and *Vata dosha* leading to the obstruction of *Pranavayu* in the Pranavaha srotas. When vitiated Vata gets Pratiloma gati, along with Prakupita kapha produces excess bronchial secretion which interfaces with flow of air giving rise to symptoms like wheezing sound, breathlessness and cough<sup>[5]</sup>. In Ayurveda literature, symptoms of *Tamaka shwasa* are *Gurghurakam* (wheezing sound), *Pinasa* (coryza), *Kasa* (cough) etc<sup>[6]</sup>. It is said as *Yapya* disease, however in individual with recent origin and Pravara Bala said to be Sadhya. While describing the management, Shodhana and Shamana treatments are mentioned. In this case, all symptoms showed Kapha predominance. As Vamana Karma is one such modality by which vitiated Kapha is eliminated from the body through oral route, the same was employed in the following case.

## Case Report

#### **Chief complaints**

Female patient aged 33 years complained of wheezing, chest tightness and breathing difficulty since 1 year. Sour belching and burning sensation in chest since 2 years

## History of present illness

A 33-year-old female patient who is not a known case of diabetes mellitus or hypertension, but a known case of bronchial asthma, complained of wheezing, chest tightness, and breathing difficulty for past one year. Her symptoms worsened during the rainy and winter seasons, at night and after consuming certain foods (peanut, pickle, cheese, ice-cream, citrous fruits and juice) but were relieved by medication (Seroflo inhaler occasionally). She also reported sour belching and burning sensation in the chest, on consuming spicy and non-vegetarian food for the past 2 years. For further management of above said complaints, she visited the OPD of Panchakarma at the Government Ayurveda Medical College, Bengaluru and was admitted.

### Past History

K/C/O Bronchial asthma since 18 years

H/O-Covid -19 in the year of 2020 **Drug history** Not on regular medication, Seroflo inhaler occasionally **Family history** Nothing specific **Menstrual history** MC: Regular 3-4 days/26-28 days P<sub>2</sub>L<sub>2</sub>A<sub>0</sub>D<sub>0</sub>

**Personal history:** Shown in table no.1

#### Table 1: Personal history

Diet	Mixed
Bowel	Regular
Appetite	Good
Habits	None
Height	149cm
Weight	54kg

#### Table 2: Ashta sthana pareeksha

	<b>F</b>
Nadi	Prakruta, 78bpm
Mutra	Prakruta
	4-5 times/day
4	1-2 times/night
Mala	Prakruta 1 time/day
Jihwa	Alipta
Shabda	Prakruta
Sparsha	Prakruta
Drik	Prakruta
Akriti	Madhyama

#### Table 3: Dashavidha pareeksha

Prakriti: Vata pitta	Satva: Madhyama
Vikriti: Kapha pitta	Satmya: Sarva rasa
Sara: Madhyama	Ahara shakti: Madhyama
Samhanana: Madhyama	Vyayama shakti: Madhyama
<i>Pramana</i> : Ht- 149cm Wt- 54kg	Vaya: Madhyama (33 years)

#### Systemic Examination

Central nervous system: Higher mental functions intact, no abnormality detected

Cardiovascular system: S1 S2 heard, no abnormality detected

Gastrointestinal system: P/A- soft, non-tender

Table 4: Respiratory findings		
Inspection	Chest bilaterally symmetrical	
	Type of breathing – thoraco-abdominal, no chest deformities.	
Palpation	Position of trachea is central, tenderness-absent, vocal fremitus- bilaterally symmetrical	
Percussion	Resonant all over the lung field, hepatic and cardiac dullness noted.	
Auscultation	Rhonchi present (more on right lung compared to left), vocal resonance- bilaterally symmetrical	

# Table 5: Showing Nidana panchaka

Nidana	Vishamashana, dadhi sevana
Purvaroopa	Bhaktadvesha, Vidagdhaajeerna
Roopa	Wheeze, chest tightness and breathing difficulty
Upashaya	Ushna ahara – Vihara and medicine
Aupashaya	Sheeta ahara and Vihara

## Table 6: Showing Samprapti ghataka

Dosha: Vata kapha	Udbhavasthana: Adhoamashaya
Dushya: Rasa, Rakta	Sancharasthana: Urdhwa shareera
Agni: Jatharagni	Vyaktasthana:Pranavaha srotas
Agnidushti: Mandagni	Adhistana: Uras
Srotas: Pranavaha	Rogamarga: Abhyantara
Srotodushti: Sanga and Vimargagamana	Sadhyasadhyata: Yapya

# Table 7: Treatment protocol adopted

Day 1 – Day 3	Deepana pachana- with Hingwashtaka churna 3gm TID for 3 days	Nirama koshta and Deeptagni lakshana were noted
Day 4 – day 8	Shodhananga snehapana with Kanthakari ghrita 1 <sup>st</sup> day – 30ml 2 <sup>nd</sup> day – 50ml 3 <sup>rd</sup> day – 70ml 4 <sup>th</sup> day – 100ml	On 4 <sup>th</sup> day <i>Snigdha varchas</i> and <i>Adhastat sneha darshana</i> were seen in the patient.
Day 9	Vishrama kala	Kaphotkleshakara Ahara Sarvanga Abhyanga with Brihat Saindhavadi Taila followed by Bashpa Sweda
Day 10	Vamana karma with Madanaphala pippali+Yashtimadu+Vacha+Saindhava+ Madhu	Akantha pana – milk 1.6 litre Vamanopaga – Yashtimadhu phanta 3.47 liters Saindhava jala – 970 ml

## Table 8: Showing Shuddhi lakshana

	8	
Vegiki	No. of Vega	7
	No. of Upavega	5
Maniki	Input	6.04 L
	Output	5.6 L
Antiki	Pittanta	Seen
Laigiki	Kale pravrutti	Seen
	Kramat kapha pitta	Seen

AYUSHDHARA | November-December 2024 | Vol 11 | Issue 6

# **Paschat karma –** Dhoomapana with Haridra varti and Samsarjana krama was advised for 5 days. **Shamanoushadhi -**After completion of Samsarjana krama:

- Vyaghri haritaki 5gm BD before food
- Shwasakuthara rasa BD after food advised

# RESULT

# Table 9: Showing assessment before and after treatment

Assessment		Before treatment	After treatment
Clinical symptoms	linical symptoms 1) Wheezing		0
	2) Chest tightness	2	0
	3) Breathing difficulty	2	0
Serum IgE		310 IU/mL	122 IU/mL

## Table no.10: Showing the subjective parameters

Parameter		Observation	Grade
Wheezing	Normal	No wheeze	0
	Mild	Wheezing only on exposure to allergens	1
	Moderate	Wheeze at night irrespective of allergen exposure	2
	Severe	Wheeze day and night irrespective of allergen exposure throughout the week	3
Chest tightness	Normal	No chest tightness	0
	Mild	Occasional sensation of chest tightness but not constant	1
	Moderate	Persistent chest tightness makes difficulty while breathing	2
	Severe	Intense and constant, causing difficulty in breathing and impairing the ability to perform daily activities	3
Breathing difficulty	Normal	No breathing difficulty	0
	Mild	Breathlessness only on exposure to allergens	1
	Moderate	Breathlessness at night, irrespective of allergen exposure	2
	Severe	Breathlessness day & night, irrespective of allergen exposure, disturbs daily activities	3

# DISCUSSION

In the above case study patient complained of wheezing, chest tightness and breathing difficulty along with *Amlapitta lakshanas* like *Amlodgara*, *Hritdaha* which is compared with gastroesophageal reflux disease (GERD). GERD is common in asthma patient affecting up to 80%<sup>[7]</sup>.

Association of Bronchial Asthma and Gastroesophageal Reflux Disease: These two are distinct clinical conditions but are often interconnected, particularly in terms of respiratory symptoms. Both conditions share overlapping symptoms such as cough, dyspnea, and chest tightness which may confuse diagnosis. Patients diagnosed with both conditions may find it hard to distinguish whether their symptoms are caused by asthma or GERD or combination of both.

**Pathophysiological link:** The lungs and esophagus have a common embryonic origin, so complex

interactions are possible. GERD can worsen asthma symptoms through several mechanisms including,

- **Increased bronchial activity:** Acid reflux in the esophagus may trigger airway hyper responsiveness causing bronchospasm.
- **Micro aspiration:** Acid from the stomach may be aspirated into the lungs, directly irritating the bronchial tree causing bronchoconstriction.
- Intraesophageal acid perfusion stimulates the release of tachykinins into the airway, leading to cough or bronchospasm.
- **Vagal response:** Acid in the esophagus can trigger the vagus nerve, which controls both esophagus and airway causing worsening asthma symptoms.

Bidirectional relationship: GERD can worsen asthma by increasing airway hyper responsiveness and bronchospasm. Conversely, poorly controlled asthma can increase intrathoracic pressure leading to reflux and worsening GERD symptoms, thus creating a vicious cycle. Breaking the cycle by aggressively treating both conditions is the key to mitigating the symptoms<sup>8</sup>.

Tamaka shwasa is predominantly Kapha-Vataja vyadhi originating from Pittasthana i.e., Amashaya and manifested through Pranavaha srotas. When Vikruta Kapha obstructs the Pranavaha srotas and Vata attains Pratiloma gati causes Gurgurakam, Shwasakrichrata, Kasa etc. At earlier stage it is Sadhya but in chronic condition it becomes Yapya<sup>[9]</sup>.

*Amlapitta* is very common disease caused due to *Agnimandhya* (digestive impairment) by increased *Amla guna* of *Vidaghda pachaka pitta* affecting *Annavaha srotas*<sup>[10]</sup>. *Achyarya Kashyapa* has explained that, this *vyadhi* is originating from *Amashaya* which shelters *kapha-pitta dosha* and no treatment surpasses the efficacy of *Vamana karma*. Just as *Moolachedana* (cutting root) of the tree eliminates the diseases of its stem and branches, *Vamana* karma addresses the root cause of the disease<sup>[11]</sup>.

# **Probable Mode of Action**

**Deepana Pachana:** Corrects *Jataragni* and facilitates proper digestion and metabolic balance by preventing *Ama* formation which is a pre-requisite for *Shodhananga Snehapana*.

Snehapana:Provides mobility to the Dosha by<br/>dislodging the cellular impurities, enabling their2movements within the body.Snehana by virtue of its<br/>Vishyandana, Vriddhi properties helps in detaching<br/>Doshas from Srotas allowing them to reach the Koshta.2This can be inferred as,Snehapana prevents IgE<br/>fixation to granulocyte membranes, thus freeing IgE<br/>into bloodstream.3

Abhyanga and Sweda during Vishrama kala: Abhyanga (Bahya snehana) and swedana also eases the doshas which are separated from the dushyas to move to the koshta. This can be understood as migration of IgE, eosinophils & other granulocytes towards respiratory mucosa.

*Vamana karma*: Increases mucosal cell permeability of in respiratory tract due to the *Ushna, Teekshna, Vyavayi* and *Vikasi guna* of the *Vamana dravya*. Assist in expelling Eosinophils & IgE along mucus, clearing respiratory obstruction enabling easy flow of breath and thus allergic reactions gets reduced.

As these two diseases i.e., *Tamaka shwasa* and *Amlapitta* have the same root of origin (*Amashaya*) which houses *Vikruta kapha* and *Pitta dosha* and contemporary science recognizes a bidirectional link between bronchial asthma and GERD, *Vamana karma* can effectively address both conditions simultaneously.

Role of *Vamana* in the correction of bronchial asthma and GERD: In *Tamaka shwasa, Vamana Karma* is known to be beneficial in eliminating excess *Kapha* and correcting the function of *Vata*, thus reducing the frequency and intensity of asthmatic attacks. As observed in the study, there was a significant reduction in clinical symptoms such as wheezing, chest tightness and breathing difficulty, along with a marked decrease in IgE levels.

## CONCLUSION

Vamana karma holds vital place in treating Tamaka shwasa, not only providing symptomatic relief but also targeting the root cause of the disease. Panchakarma focusing on body purification, plays a major role in managing these kinds of chronic conditions, forming a cornerstone of Ayurvedic care. Shodhana chikitsa, by removing the accumulated Doshas will treat the disease at its core and adopting Shamanaushadhi helps in minimizing the chances of recurrence, making it preventive as well as a therapeutic approach.

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#### Cite this article as:

Vidyashree A G, Anjani S Pai, Megha B, Ananta S Desai. Revitalizing Breath: Ayurvedic Insights into Bronchial Asthma Management via Vamana Karma. AYUSHDHARA, 2024;11(6):269-274. https://doi.org/10.47070/ayushdhara.v11i6.1840

Source of support: Nil, Conflict of interest: None Declared

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