



Review Article

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AYURVEDIC UNDERSTANDING OF TAMAKA SHWASA IN CO-RELATION WITH BRONCHIAL ASTHMA

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ABSTRACT

Background:

Respiratory disorders are among the leading causes of morbidity worldwide and significantly affect the quality of life of affected individuals. Bronchial Asthma is a chronic inflammatory disease of the airways characterized by recurrent episodes of wheezing, breathlessness, chest tightness, and cough. In Ayurveda, a clinical condition closely resembling Bronchial Asthma has been described under the heading of Tamaka Shwasa, a Vata-Kapha predominant disorder involving Pranavaha Srotas. Classical Ayurvedic texts provide a comprehensive understanding of its etiology, pathogenesis, symptomatology, and therapeutic approaches. To critically review the Ayurvedic concept of Tamaka Shwasa and explore its contemporary relevance with special reference to Bronchial Asthma.

Relevant information was collected from classical Ayurvedic texts including Charaka Samhita, Sushruta Samhita, Ashtanga Hridaya, Madhava Nidana, and Bhava Prakasha, along with modern medical textbooks and published literature related to Bronchial Asthma.

Classical descriptions of Tamaka Shwasa were critically analyzed and correlated with modern concepts of Bronchial Asthma based on etiology, clinical presentation, pathogenesis,

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and treatment principles. Tamaka Shwasa exhibits considerable similarity with Bronchial Asthma regarding causative factors, disease progression, and symptomatology. The Ayurvedic understanding emphasizes Dosha imbalance, Agni disturbance, Ama formation, and Pranavaha Srotas involvement. Modern medicine recognizes airway inflammation, hyper-responsiveness, and immunological mechanisms as important contributors. Ayurvedic interventions including Shamana, Shodhana, and Rasayana therapies may provide a holistic approach in disease management.

Keywords:

Tamaka Shwasa, Bronchial Asthma, Ayurveda, Pranavaha Srotas, Shodhana, Shamana

INTRODUCTION

Respiratory diseases constitute a significant global health burden and remain among the leading causes of disability and mortality. The increasing prevalence of respiratory disorders has become a major concern due to rapid industrialization, urbanization, environmental pollution, occupational exposure, altered dietary habits, and changing lifestyle patterns.

Chronic respiratory illnesses adversely affect physical health, social functioning, emotional well-being, and economic productivity.

Among respiratory diseases, Bronchial Asthma represents one of the most common chronic inflammatory conditions affecting individuals of all age groups. The disease is characterized by recurrent episodes of wheezing, dyspnea, chest tightness, and cough, which vary in severity and frequency. According to global estimates, hundreds of millions of people are affected by asthma, and its prevalence continues to rise despite significant advancements in medical treatment.

Bronchial Asthma results from complex interactions among genetic predisposition, environmental exposure, immunological disturbances, and inflammatory mechanisms. The disease involves chronic inflammation of the airway mucosa with participation of eosinophils, mast cells, T-lymphocytes, and inflammatory mediators leading to airway narrowing and reversible airflow limitation.

Current management of asthma primarily includes bronchodilators, inhaled corticosteroids, leukotriene antagonists, and immunomodulatory drugs. Although these therapies provide substantial symptomatic relief and reduce disease exacerbations, long-term use frequently raises concerns related to adverse effects, treatment compliance, cost burden, and

dependence on medication.

Ayurveda, the ancient Indian system of medicine, provides a holistic approach toward health and disease management. Respiratory disorders have been extensively discussed under Shwasa Roga. Among the five types of Shwasa described in classical texts, Tamaka Shwasa is recognized as a distinct disease entity.

Tamaka Shwasa is characterized by recurrent episodes of respiratory distress, wheezing, cough, expectoration, and chest discomfort with worsening symptoms during night hours. The term "Tamaka" denotes the sensation of darkness experienced by patients during severe attacks due to respiratory distress.

Classical texts describe Tamaka Shwasa as a Yapya Vyadhi, implying a condition that can be effectively controlled and managed but may not always be completely cured. The disease originates in Pittasthana and primarily involves Vata and Kapha Doshas with subsequent obstruction of Pranavaha Srotas.

The clinical manifestations and disease course of Tamaka Shwasa closely resemble Bronchial Asthma, suggesting a strong conceptual relationship between the two conditions.

Understanding these similarities may facilitate integration of traditional knowledge with modern scientific concepts and contribute to development of more comprehensive management approaches.

Therefore, the present review aims to critically analyze the Ayurvedic understanding of Tamaka Shwasa and explore its relevance in the context of contemporary knowledge regarding Bronchial Asthma.

HISTORICAL PERSPECTIVE OF TAMAKA SHWASA

Descriptions related to respiratory disorders are available throughout classical Ayurvedic literature. References to Shwasa are found in Vedic texts and later received detailed explanation in Samhita literature.

Among the Brihatrayi texts, Charaka Samhita provides detailed descriptions regarding etiology, pathogenesis, classification, and treatment of Shwasa Roga. Tamaka Shwasa has been described as an independent disease entity with characteristic symptomatology and therapeutic principles.

Acharya Charaka classified Shwasa into five types:

1. Maha Shwasa

2. Urdhva Shwasa
3. Chinna Shwasa
4. Tamaka Shwasa
5. Kshudra Shwasa

Among these, Tamaka Shwasa is considered clinically important due to its chronic nature and recurrent attacks.

Acharya Sushruta and Vagbhata also described Tamaka Shwasa and emphasized involvement of Kapha and Vata Doshas.

Charaka additionally mentioned two related conditions:

- Pratamaka Shwasa
- Santamaka Shwasa

Pratamaka Shwasa is considered to involve Pitta association, whereas Santamaka Shwasa represents a more severe clinical presentation characterized by intense respiratory distress.

Madhava Nidana further elaborated disease manifestations and emphasized causative factors contributing to Tamaka Shwasa.

Over time, the understanding of Tamaka Shwasa evolved from simple symptomatic descriptions toward a more comprehensive interpretation involving Dosha imbalance, Srotas pathology, and systemic disturbances.

AYURVEDIC CONCEPT OF TAMAKA SHWASA

Nidana (Etiological Factors)

Ayurveda recognizes Nidana as an important factor in understanding disease causation and pathogenesis. The Nidanas of Tamaka Shwasa described in classical texts primarily aggravate Vata and Kapha Doshas and ultimately produce obstruction of Pranavaha Srotas. Acharya Charaka has explained separate Vata-prakopaka and Kapha-prakopaka factors responsible for the manifestation of Shwasa Roga.

For better understanding, these etiological factors may be categorized into dietary, lifestyle, environmental, psychological, and secondary causes.

Aharaja Nidana (Dietary Factors)

Improper dietary practices contribute significantly to Dosha vitiation and Agni disturbance.

Common dietary causes include:

- Excessive intake of Guru Ahara (heavy food)
- Consumption of Dadhi (curd)
- Maasha (black gram)
- Pinyaka
- Excessive use of Abhishyandi Ahara
- Excessive intake of cold food substances
- Consumption of Anupa Mamsa (marshy animal meat)
- Excessive intake of dry food
- Viruddha Ahara (incompatible diet)

These food items predominantly increase Kapha Dosha and impair digestive fire, resulting in Ama formation and subsequent disease manifestation.

Viharaja Nidana (Lifestyle Factors)

Lifestyle-related causes include:

- Exposure to Raja (dust)
- Dhuma (smoke)
- Sheeta Vayu (cold wind)
- Excessive physical exertion
- Night awakening (Ratri Jagarana)
- Suppression of natural urges
- Excessive speaking
- Daytime sleeping
- Improper exercise habits

Continuous exposure to these factors results in aggravation of Vata and Kapha Doshas.

Manasika Nidana (Psychological Factors)

Psychological disturbances may also contribute to disease aggravation:

- Anxiety
- Stress
- Fear
- Excessive emotional disturbances

Mental stress may disturb normal physiological regulation and precipitate respiratory symptoms.

Nidanarthakara Roga

Certain diseases and pathological states may predispose an individual toward Tamaka Shwasa, including:

- Recurrent respiratory tract infections
- Chronic Kapha disorders
- Improperly managed diseases
- Chronic digestive disturbances

Purvarupa (Prodromal Symptoms)

Purvarupa denotes the premonitory symptoms appearing before complete manifestation of disease.

Classical texts describe the following Purvarupa of Tamaka Shwasa:

- Parshva Shoola (pain in flank region)
- Hridaya Peeda (discomfort in chest region)
- Anaha (abdominal distension)
- Disturbed breathing
- General discomfort
- Reduced appetite

These manifestations indicate early involvement of Pranavaha Srotas and Dosha disturbance.

Rupa (Clinical Features)

Rupa refers to fully manifested signs and symptoms of disease. The principal manifestations of Tamaka Shwasa include: **Shwasakrichchhata**

Difficulty in breathing represents the cardinal feature of the disease. Respiratory effort becomes labored and progressively distressing during attacks.

Muhurmuhur Shwasa Vega

Patients experience recurrent episodes of breathlessness occurring repeatedly.

Ghurghuraka

Wheezing sounds resulting from airway obstruction and accumulated Kapha are characteristic findings.

Kasa

Persistent cough may occur either with or without expectoration.

Kaphanishthivana

Expectoration of Kapha provides temporary symptomatic relief.

Asinolabhate Soukhyam

Patients obtain relief in sitting posture because respiratory mechanics improve in this position.

Peenasa

Associated rhinitis frequently accompanies attacks.

Urashoola and Parshvashoola

Pain and discomfort may be experienced in chest and flank regions.

Nocturnal Aggravation

Symptoms commonly worsen during night hours and early morning.

The above features demonstrate considerable similarity with manifestations observed in Bronchial Asthma.

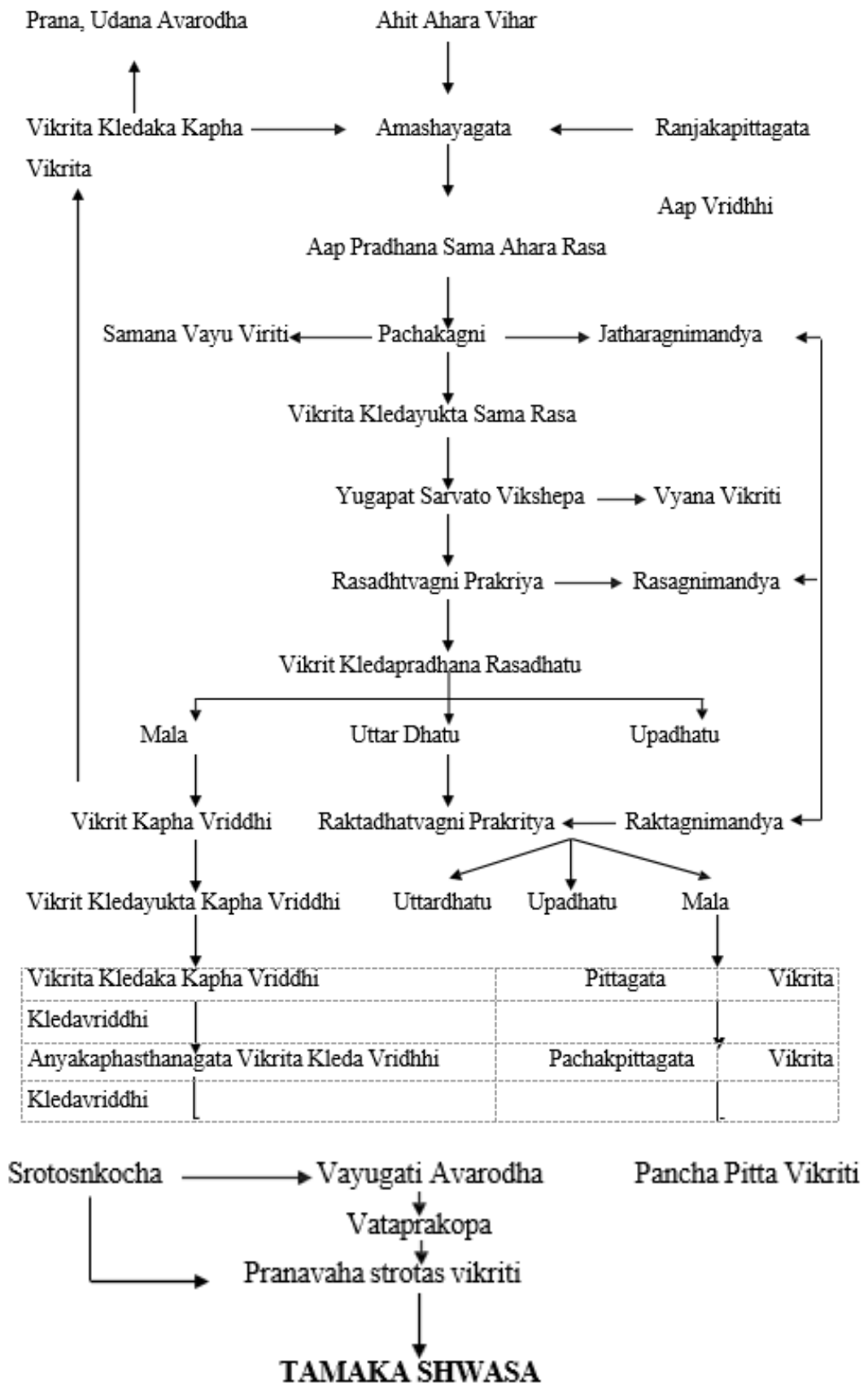
Samprapti (Pathogenesis)

Samprapti represents the sequence of pathological events leading to disease manifestation.

According to Ayurvedic classics, Tamaka Shwasa originates from aggravation of Vata and Kapha Doshas.

The pathogenesis may be summarized as follows:

SAMPRAPTI



TAMAKA SHWASA

Kapha acts as an obstructing factor while Vata becomes deranged due to this obstruction. This pathological interaction results in disturbed respiratory physiology and characteristic symptoms.

Acharya Charaka described Tamaka Shwasa as a Pittasthana Samudbhava Vyadhi, whereas Vagbhata considered it Aamashaya Samudbhava. Though interpretations vary, both concepts emphasize involvement of the gastrointestinal system in disease pathogenesis.

Samprapti Ghataka

The important components involved in disease pathogenesis are summarized below:

Component	Findings
Dosha	Vata-Kapha predominant
Dushya	Rasa, Rakta
Agni	Mandagni/Vishamagni
Ama	Present
Srotas	Pranavaha Srotas
Srotodushti	Sanga
Udbhavasthana	Pittasthana/Aamashaya
Adhithana	Uras
Vyakta Sthana	Respiratory tract
Rogamarga	Madhyama Rogamarga
Swabhava	Yapya

The above Samprapti Ghataka provide a comprehensive understanding of the disease process and explain the chronic, recurrent, and obstructive nature of Tamaka Shwasa.

CONTEMPORARY UNDERSTANDING OF BRONCHIAL ASTHMA

Bronchial Asthma is a chronic inflammatory disorder of the airways characterized by variable respiratory symptoms and reversible airflow limitation. The disease is associated with airway hyper-responsiveness resulting from chronic inflammation and interaction among genetic, environmental, and immunological factors.

Asthma affects individuals of all age groups and has emerged as a significant global health concern. The prevalence of asthma has increased steadily over recent decades due to industrialization, environmental pollution, urbanization, altered lifestyle patterns, and increased exposure to allergens.

The disease not only imposes a substantial economic burden but also significantly impairs quality of life through recurrent exacerbations, hospital admissions, sleep disturbances, and reduced physical performance.

Etiology of Bronchial Asthma

The etiology of asthma is multifactorial and involves complex interactions among host-related and environmental factors.

Genetic Factors

Genetic susceptibility plays an important role in disease occurrence. Individuals with a positive family history demonstrate increased risk of developing asthma. Various genes regulating immune response, inflammatory pathways, and airway responsiveness have been implicated.

Environmental Factors

Environmental exposure significantly contributes to disease development and exacerbation.

Important factors include:

- Air pollution
- Occupational dust exposure
- Tobacco smoke
- Industrial pollutants
- Vehicle emissions
- Pollens
- Animal dander
- Household dust mites
- Mold exposure

Lifestyle Factors

Several lifestyle-related conditions contribute to asthma development:

- Sedentary lifestyle
- Obesity

- Dietary changes
- Psychological stress
- Smoking habits
- Sleep disturbances

Infectious Factors

Respiratory infections may precipitate acute attacks and aggravate chronic inflammation.

Common infectious agents include:

- Viral respiratory infections
- Bacterial infections
- Chronic sinus infections

Pathophysiology of Bronchial Asthma

The pathophysiology of asthma involves persistent airway inflammation associated with bronchial hyper-responsiveness and reversible airflow obstruction.

The pathological sequence may be represented as:

Trigger Exposure

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Immune activation

↓

Mast cell and eosinophil stimulation

↓

Release of inflammatory mediators

↓

Bronchoconstriction

↓

Mucosal edema

↓

Mucus hypersecretion

↓

Airway obstruction

↓

Clinical manifestations

Inflammatory mediators released include:

- Histamine
- Leukotrienes
- Prostaglandins
- Cytokines
- Interleukins

These substances contribute to airway narrowing and increased bronchial sensitivity.

Immunological Basis of Bronchial Asthma

Modern understanding recognizes the importance of inflammatory cells and immune mechanisms in asthma.

Mast Cells

Mast cells release histamine and other inflammatory mediators responsible for immediate hypersensitivity reactions.

Eosinophils

Eosinophils contribute to airway inflammation and tissue damage through release of cytotoxic proteins.

T-Lymphocytes

Activated T-helper cells stimulate cytokine production and perpetuate inflammatory responses.

Macrophages

Macrophages amplify airway inflammation through release of inflammatory mediators.

The interaction among these cells produces chronic inflammation and airway remodeling.

Clinical Features of Bronchial Asthma

The characteristic symptoms include:

Wheezing

Musical sounds produced due to airflow through narrowed airways.

Dyspnea

Breathlessness varying from mild exertional symptoms to severe respiratory distress.

Cough

Frequently worse during night or early morning hours.

Chest Tightness

Patients commonly report chest discomfort or constriction.

Recurrent Attacks

Symptoms occur episodically with periods of remission between attacks.

Nocturnal Exacerbation

Night-time aggravation is a characteristic feature.

Diagnosis of Bronchial Asthma

Diagnosis is generally established through clinical evaluation and objective investigations.

Clinical Assessment

- Detailed history
- Family history
- Trigger identification
- Symptom pattern

Pulmonary Function Tests

Pulmonary function tests play a major role in diagnosis. Important parameters include:

- Peak Expiratory Flow Rate (PEFR)
- Forced Vital Capacity (FVC)
- Forced Expiratory Volume in one second (FEV1)
- FEV1/FVC ratio

Laboratory Investigations

Supportive investigations include:

- Absolute eosinophil count
- Serum IgE level

- Sputum eosinophil count
- Chest radiography

CORRELATION BETWEEN TAMAKA SHWASA AND BRONCHIAL ASTHMA

The clinical manifestations and disease course of Tamaka Shwasa described in Ayurveda demonstrate significant similarity with Bronchial Asthma described in contemporary medicine. Although the conceptual frameworks differ, both systems describe a chronic respiratory disorder characterized by recurrent airway obstruction and episodic exacerbations.

Comparative Correlation

Ayurvedic Concept	Bronchial Asthma Correlation
Tamaka Shwasa	Bronchial Asthma
Vata-Kapha Dushti	Airway inflammation and obstruction
Pranavaha Srotas Dushti	Bronchial pathology
Shwasakrichchhata	Dyspnea
Ghurghuraka	Wheezing
Kasa	Cough
Ayurvedic Concept	Bronchial Asthma Correlation
Kaphanishthivana	Expectoration
Muhurmuhur Vega	Recurrent attacks
Peenasa	Allergic rhinitis
Asinolabhate Soukhyam	Orthopneic relief
Ratri Prakopa	Nocturnal asthma

Similarities Between Tamaka Shwasa and Bronchial Asthma Etiological Similarities

Both conditions share several precipitating factors:

- Dust exposure
- Smoke exposure
- Allergens

- Seasonal variations
- Respiratory infections
- Dietary factors
- Psychological stress

Clinical Similarities

Common manifestations include:

- Breathlessness
- Wheezing
- Cough
- Chest tightness
- Episodic attacks
- Nocturnal aggravation

Pathophysiological Similarities

Tamaka Shwasa involves obstruction of Pranavaha Srotas by Kapha leading to derangement of Vata, whereas Bronchial Asthma involves airway inflammation and narrowing resulting in airflow limitation.

Despite differences in terminology, both describe a similar functional disturbance involving respiratory obstruction.

AYURVEDIC MANAGEMENT PRINCIPLES OF TAMAKA SHWASA

Ayurveda advocates a comprehensive approach for the management of Tamaka Shwasa by addressing both causative factors and underlying pathophysiological disturbances. The treatment strategy aims not only to provide symptomatic relief but also to restore Dosha equilibrium, improve Agni, remove obstruction in Srotas, and prevent recurrence.

The general line of management includes:

- Nidana Parivarjana
- Shamana Chikitsa
- Shodhana Chikitsa
- Rasayana Chikitsa

Nidana Parivarjana

Nidana Parivarjana refers to elimination or avoidance of causative factors responsible for disease initiation and progression. Acharyas have emphasized this as the first principle of treatment because continued exposure to etiological factors can interfere with therapeutic outcomes.

Recommended measures include:

Dietary Modifications

Avoidance of:

- Dadhi (curd)
- Maasha (black gram)
- Heavy and oily foods
- Cold food items
- Excessively sweet foods
- Viruddha Ahara
- Excessive intake of Abhishyandi Ahara

Recommended dietary measures:

- Easily digestible food
- Warm food preparations
- Light meals
- Deepana-Pachana supportive diets

Lifestyle Modifications

- Avoid exposure to smoke and dust
- Avoid cold exposure
- Maintain regular sleep pattern
- Avoid suppression of natural urges
- Reduce psychological stress
- Practice breathing exercises

Shamana Chikitsa

Shamana Chikitsa aims to pacify aggravated Doshas and restore physiological balance without active elimination of Doshas.

The major objectives include:

- Kapha reduction
- Restoration of Vata movement
- Improvement of Agni
- Relief of airway obstruction

Drugs used in Tamaka Shwasa generally possess:

- Ushna Virya
- Laghu Guna
- Tikshna Guna
- Katu and Tikta Rasa
- Vata-Kaphahara properties

Frequently employed formulations include:

- Shatyadi Yoga
- Sitopaladi Churna
- Talisadi Churna
- Kanakasava
- Agastya Haritaki

Shodhana Chikitsa

Shodhana therapy occupies a special place in the management of Tamaka Shwasa because it removes aggravated Doshas from the body and may provide sustained therapeutic benefits.

Vamana Karma

Vamana is indicated when Kapha predominance is significant. Benefits include:

- Elimination of accumulated Kapha
- Reduction of airway obstruction

- Improvement of respiratory function

Virechana Karma

Virechana is advised in conditions associated with Vata-Kapha imbalance and gastrointestinal involvement.

The procedure:

- Eliminates accumulated Doshas
- Facilitates Vatanulomana
- Improves digestive function
- Reduces disease recurrence

Compared with Vamana, Virechana is relatively easier to administer and demonstrates good patient compliance.

Nasya Karma

Nasya facilitates cleansing of the upper respiratory tract and improves airway function.

Dhoomapana

Medicated smoke inhalation is described for maintaining respiratory health and reducing Kapha accumulation.

Rasayana Chikitsa

Rasayana therapy is administered to improve immunity, strengthen tissues, and prevent recurrence.

Expected benefits include:

- Improved resistance
- Better respiratory strength
- Enhanced tissue nourishment
- Long-term disease control

Commonly used Rasayana drugs include:

- Pippali
- Haritaki
- Chyawanprasha
- Guduchi

CONTEMPORARY EVIDENCE SUPPORTING AYURVEDIC INTERVENTIONS

Increasing scientific interest has focused on understanding the pharmacological properties of Ayurvedic drugs used in respiratory disorders.

Several medicinal plants traditionally indicated in Shwasa Roga possess activities relevant to Bronchial Asthma management.

Bronchodilator Activity

Certain herbal constituents may facilitate relaxation of bronchial smooth muscles and improve airway patency.

Examples include:

- Pippali (*Piper longum*)
- Pushkarmoola (*Inula racemosa*)
- Tulsi (*Ocimum sanctum*)

Anti-inflammatory Activity

Chronic inflammation represents a central mechanism in asthma pathogenesis.

Several Ayurvedic herbs exhibit anti-inflammatory activity through inhibition of inflammatory mediators.

Examples:

- Shunthi (*Zingiber officinale*)
- Mustaka (*Cyperus rotundus*)
- Tulsi (*Ocimum sanctum*)

Antioxidant Activity

Oxidative stress contributes to airway injury and inflammatory responses.

Medicinal plants possessing antioxidant effects may reduce tissue damage and improve respiratory function.

Immunomodulatory Activity

Immunomodulation may help regulate exaggerated immune responses and reduce allergic manifestations.

Examples include:

- Guduchi

- Pippali
- Jivanti

Expectorant and Antitussive Effects

Many herbal formulations demonstrate:

- Reduction of mucus accumulation
- Facilitation of expectoration
- Relief from cough

These actions may significantly improve respiratory symptoms.

DISCUSSION

The present review critically examined the Ayurvedic understanding of Tamaka Shwasa and correlated it with contemporary concepts of Bronchial Asthma.

Classical descriptions indicate that Tamaka Shwasa is a chronic Vata-Kapha predominant disorder involving Pranavaha Srotas with characteristic manifestations including dyspnea, cough, wheezing, and recurrent respiratory attacks. Similar features are observed in Bronchial Asthma, supporting a substantial conceptual relationship between the two conditions.

Ayurveda explains disease development through a sequence involving Agni disturbance, Ama formation, Dosha aggravation, and Srotas obstruction. In contrast, modern medicine attributes disease occurrence to inflammatory processes involving eosinophils, mast cells, cytokines, and airway hyper-responsiveness.

Although terminology differs, both systems recognize obstruction within respiratory pathways as a central event.

The Ayurvedic approach offers several advantages including:

- Holistic understanding of disease
- Individualized treatment principles
- Focus on prevention
- Dietary and lifestyle modifications
- Long-term management strategies

The concept of integrating Shodhana, Shamana, and Rasayana therapies may provide a comprehensive framework for improving patient outcomes.

Modern scientific evidence increasingly supports several pharmacological properties of Ayurvedic medicinal plants, including bronchodilator, anti-inflammatory, antioxidant, immunomodulatory, and antiallergic activities.

Further clinical and experimental studies may help strengthen scientific understanding of these traditional approaches.

CONCLUSION

Tamaka Shwasa described in Ayurveda demonstrates substantial similarity with Bronchial Asthma in terms of etiology, symptomatology, disease progression, and chronic recurrent nature.

Ayurvedic literature provides a detailed understanding of disease mechanisms through concepts such as Dosha imbalance, Agni disturbance, Ama formation, and Pranavaha Srotas involvement. Contemporary medicine explains Bronchial Asthma primarily through inflammatory and immunological mechanisms.

The integration of classical Ayurvedic principles with current scientific understanding may provide a broader and more comprehensive approach toward management of chronic respiratory disorders.

Ayurvedic interventions including Nidana Parivarjana, Shamana, Shodhana, and Rasayana therapies may represent valuable complementary approaches in long-term disease management.

Further evidence-based studies are necessary to establish stronger scientific validation and explore the full therapeutic potential of Ayurvedic interventions in respiratory diseases.

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