



## Review Article

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### A REVIEW ON TAMAKA SHWASA (BRONCHIAL ASTHMA)

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#### ABSTRACT

*Tamaka Shwasa* (Bronchial Asthma) is considered basically a disorder of *Pranavaha Srotasa* in which other *Srotasa* are also involved. In this condition, there is vitiation of *Vayu* from its normal state due to obstruction of *Srotasa* because of *Kapha*. Vitiation of *Vayu* leads to severe episodes of breathlessness and the patient feels darkness all around. As "Breathlessness" is the predominant symptom along with feeling of darkness, hence this disease is named so. There are similarities in the etiopathogenesis, signs and symptoms of *Tamaka Shwasa* (Bronchial Asthma) and Bronchial asthma. Clinically *Tamaka Shwasa* (Bronchial Asthma) is most important among different types of *Shwasa* described in Ayurveda. This paper emphasizes about the Ayurvedic view of *Shwasa* especially *Tamaka Shwasa* (Bronchial Asthma) along with modern perspective and establishes the strong resemblances between them.

**Keywords:** Bronchial Asthma, *Tamaka Shwasa*, *Ayurveda*, *Pranavaha Srotasa*.

#### INTRODUCTION

The word *Tamaka* means darkness or to choke or be suffocated. 'Tamyati Iti Tamaka, Tama Eva Tama'. This quotation indicates that it is the disease in which darkness is produced or patient see darkness all around. The word *Shwasa* means "to breathe". It is originated from Sanskrit word which refers to expiration of inside air out.

There is a unique approach of etiopathogenesis, clinical presentation and management of *Tamaka Shwasa* (Bronchial Asthma) in ancient Ayurveda texts. There is derangement of *Pranavaha Srotasa* in *Tamaka Shwasa* (Bronchial Asthma). It is described under five types of *Shwasa Roga* in Ayurvedic texts. *Tamaka Shwasa* (Bronchial Asthma) is *Pittasthanasamuodbhava* and *Kapha-vataja dosha vyadhi*. If *Praṇa Vayu* is obstructed by *Kapha dosha*, the vitiated *Vayu* get *Pratiloma* which produce *Shwasa roga*. *Pranavilomatavam* (abnormal breathing pattern), *Hridaya Pidanam* (tightness of the chest region), *Ruddha Shwasa* (difficulty in breathing), *Ghurghurukama* (wheeze) and *Kasa* (cough) are some of the cardinal features of *Tamaka Shwasa* (Bronchial Asthma). There is opposite movement of *Vata dosha* which pervades inside the *Pranavaha Srotasa*, causes affliction in the head and neck region, and further aggravates *Kapha* (phlegm). This blocks respiratory pathway because of broncho constriction.

According to *Ayurveda*, dyspnea accompanied generally with thirst, perspiration and vomiting, which mostly appears during cloudy weather and darkness is termed as *Tamaka Shwasa* (Bronchial Asthma). *Vayu* taking severe course reaches respiratory passages furthers causes seizing of neck, head and aggravate the secretion of phlegm. Also it produces coryza which creates obstruction and troublesome dyspnea, usually gets aggravated during night hours and in lying down posture. The

person feels comfortable in sitting position. In *Charaka Samhita*, this disease is mentioned as *Yapya Vyadhi* (which is having chronicity), whereas it is considered as *Krichcha Sadhya Vyadhi* in *Sushruta Samhita*.

*Tamaka Shwasa* (Bronchial Asthma) in modern perspective is a disease which is T-helper-2 (Th2)-cell-dependent with IgE-mediated allergic reaction. Approximately 300 million people are affected by this disease across the world. The prevalence of asthma has risen over the last 30 years, with approximately 10-12% of the adults and 15% of children affected by the disease.<sup>1</sup>

#### Aims and Objective

- To study the etiopathogenesis, sign and symptoms and management of *Tamaka Shwasa* (Bronchial Asthma)
- To study recent researches regarding *Tamaka Shwasa* (Bronchial Asthma) with special reference to Bronchial Asthma

For this study, literary method which includes the references of *Tamaka Shwasa* (Bronchial Asthma) and Bronchial Asthma has been collected from the *Ayurvedic* and modern literatures.

#### Nidana (Etiology)

*Tamaka Shwasa* (Bronchial Asthma) has same causative factors as of *Shwasa roga*. It may develop as an independent disease due to exposure to specific *Vata and Kapha Dosha* vitiating factors. The disease may also manifest as a sequel of certain disorders like *Anaha, Raktapitta*. Here *Tamaka Shwasa* (Bronchial Asthma) manifests as *Nidanarthakara roga*.<sup>2</sup> Thus the disease *Tamaka Shwasa* (Bronchial Asthma) may be:

- *Nidanottha*: as a result of specific disease producing factors.
- *Rogottha*: a sequel of certain disease.<sup>3,4</sup>

*Madhavakara* has mentioned *Shwasa* as a disease produced by *dushivisha*. The poisonous substances which manifests its poisonous effects after the lapse of sometime is called *Dushivisha*.<sup>5</sup> It produces *Kapha-Vataja* disorders when remains in *Amashaya*. *Shwasa* is called as *Amashayottha* and *Kaphavataja Vyadhi*. Etiologies mentioned in Modern science have close resemblance with *Nidanas* explained in *Ayurvedic* texts. Different *Acharayas* has mentioned etiological factors<sup>6-9</sup> as dust, smoke, wind (*Anala*), *Atapa*, use of cold water and residing in cold place, excessive physical exertion, excessive sexual intercourse, walking barefoot, intake of irregular meals, vitiation of *Ama*, distention of bowels, roughness, over saturation, debility, injury to vital parts, use of hot and cold substances simultaneously, *Dosha Prakopa*, *Abhighata* excessive evacuation. It is also mentioned as a complication of various diseases like diarrhoea, *Amatisara*, fever, vomiting, coryza, chest injury, internal haemorrhage and upward movement of *Vayu*, *Visuchika*, *Alasaka*, *Panduroga* and poisoning. Along with it, intake of *Nispava*, black gram, oil cake, sesamum and oil, flour preparations, tubers, spicy and heavy food, aquatic and marshy meat, curd, unboiled milk, channel blocking regimens and use of *Kapha* aggravating things leads to obstruction in throat, chest and various other sorts of retention.

#### Samprapti (Pathogenesis)

According to Charaka, *Tamaka Shwasa* is "*Kaphavatamakavetou pitta sthana samudbhava*"<sup>10</sup>. There is simultaneous aggravation of *Kapha* and *Vayu* which have adverse effect on cardiac region (*Hridaya*) and on the seven categories of tissue elements viz; *rasa*, *rakta*, *mamsa*, *meda*, *asthi*, *majja* and *shukra*.

*Doshas* are vitiated in *Amashaya (Pitta Sthana Samudbhava)* by the causative factors (*Nidana*). These *Nidanas* lead to *Dosha utklesha* resulting in *Agnimandhya* and ultimately there is

formation of *Ama*. This *Ama* along with *Vikruta Kapha* causes the *Pranavaha Srotasa* obstruction which leads to *Vilomagati* of *Prana Vayu*. Certain factors like *Raja* (dust particles), *Dhooma* (fog), and *Anila* (wind) directly provoke the *Vata dosha* and this along with *Kapha dosha* produces *Tamaka Shwasa* (Bronchial Asthma).

*Vata dosha* and *Kapha dosha* both are having different line of treatment or in other words, we can say that they have almost opposite line of treatment as *Vata dosha* is best treated by *snigdha* substances, whereas *Kapha* is best treated by *ruksha* substances. In this way, they cause practical problems in the treatment of *Tamaka Shwasa* (Bronchial Asthma) making this disease difficult to cope with. In *Tamaka Shwasa* (Bronchial Asthma), *Kapha dosha* afflicts the *Rasa dhatu*. As they both (*Kapha dosha* and *Rasa dhatu*) belong to same categories, there is rapid progression in the process of pathogenesis.

In *Tamaka Shwasa* (Bronchial Asthma) *Prana vata* and *Kapha dosha* are vitiated independently. Vitiating *Prana Vayu* also irritates the *Nasa* (Nose) causing increased secretion and manifestation like *Peenasa*, *Kshavathu* etc.<sup>11</sup>. *Samprapti ghataka* of *Tamaka Shwasa* (Bronchial Asthma) are elaborated as;

- *Dosha - Vata, Kapha*
- *Dushya - Rasa Dhatu*
- *Srotasa - Pranavaha, Udakavaha, Annavaha*
- *Srotodushti - Sanga, Vimargagamana, Atipravriti*
- *Utpattisthana - Amashaya (Pitta Sthana Samudbhava)*
- *Sanchar Sthana – Ura, Kantha*
- *Vyakta Sthana - Uras*
- *Rogamarga - Abhyantara*
- *Adhishthana - Pranavaha Srotasa*

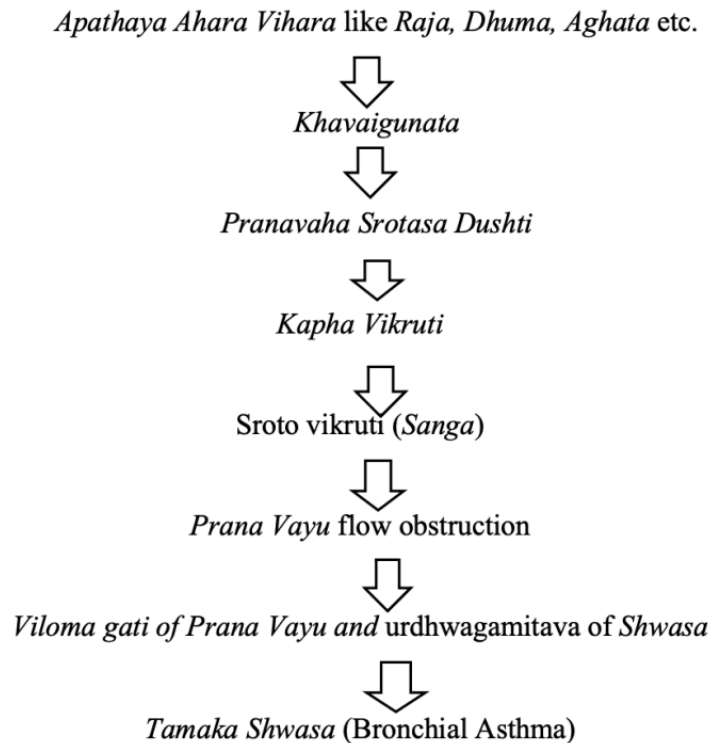


Figure 1: Samprapti of Tamaka Shwasa (Bronchial Asthma)

### Purvarupa (Prodromal symptoms)

According to *Acharya Charaka*, prodromal sign and symptoms are;

- Flatulence with constipation.
- Pain over both sides of chest.
- Pain in cardiac region
- *Vilomatva* (reverse) of respiratory functions (*Prana*).

### Rupa (Symptoms)

*Vata dosha*, *Kapha dosha*, *Rasa dhatu* and *Pranavaha Srotasa* are predominant factors which are involved in pathogenesis of *Tamaka Shwasa* (Bronchial Asthma). The cardinal symptom of *Tamaka Shwasa* (Bronchial Asthma) is abnormal breathing pattern which is episodic (*Atitivravega Shwasa*). Accumulation of *Shleshma* obstructs *Pranavaha Srotasa* which renders the phenomena known as *Pranavilomata*. This causes abnormality in breathing. Patient experiences tightness in the chest region (*Hridaya Peedana*). Also the expiration becomes enforced and difficult. Because of this *Gurugurata* (Audibility of respiration in the form of abnormal wheeze) sound is produced. Respiration also becomes rapid (*Atitivravega*) than the normal rate. Thus respiration rate is markedly increased. There is shortened inspiration and prolonged expiration in this disease. When there is attack of *Tamaka Shwasa* (Bronchial Asthma), there is more effortlessness for breathing in sitting position rather than in lying position. During severe attack, patient is even unable to speak. There is perspiration over the forehead and patient may become unconscious. If there are frequent episodes of *Kasa* (Coughing) and *Shwasa* (Breathlessness), then patient is unable to sleep. There is obstruction of *Prana Vayu* in lying posture due to which patient feels discomfort and get relief on sitting position. Even though the paroxysms of cough increases breathlessness, the aid like spitting out of sticky sputum brings some momentary relief in dyspnea<sup>12,13</sup>.

### Management of Tamaka Shwasa

- *Nidana Parivarjana*
- *Shamana chikitsa*
- *Shodhana chikitsa*
- *Pathya* and *Apathya*
- *Yogic* breathing

The patient should at first be managed with unctuous sudation by tubular, bed and bolus methods (*Nadi Sweda*, *Prastara Sweda* and *Sankara Sweda*) after anointing the body with salted oil (unctuous substance). The fomentation therapy helps inspissated phlegm of channels to get dissolved and softened the passage there by. In this way, *Vayu* returns to its normal course.

### Recent advances

Advancing age, biomass smoke exposure, infections, female gender, history of atopy, tobacco smoke, occupation, diet and others are various causative factors responsible for pathogenesis of disease<sup>14-16</sup>. Asthma is considered as a reversible disease but recent advances shows that there are permanent structural changes in the airways, which includes subbasement glandular hyperplasia, membrane fibrosis, smooth muscle hyperplasia and neovascularisation<sup>17</sup>. All these are collectively referred to as airway remodeling which are responsible for disease pathogenesis, further progression, severity and irreversibility. Also there is evidence that chronicity of this disease is associated with fast decline in lung function<sup>18-21</sup>. This disease is more seen

in young adults especially in the age group of 16-25 years<sup>22</sup>. A recent study has shown the higher incidence of asthma compared to children born to mothers with thyroid dysfunction. The risk was even higher if during pregnancy, the mothers did not receive any thyroid hormone treatment<sup>23</sup>. Another recent study has found positive correlation between depression and anxiety with poorly controlled asthma symptoms<sup>24</sup>.

### CONCLUSION

*Tamaka Shwasa* (Bronchial Asthma) is a chronic inflammatory disease of airway characterized by *Pranavaha Srotasa* hyper responsiveness caused by various internal as well as external environmental factors. Here *Pratiloma Gati* of *Vayu* occurs which causes obstruction of *Pranavaha Srotasa*. Along with *Kapha Dosha*, it causes various symptoms like *Pratishyaya*, *Peenasa* etc. For treatment, there are various types of *Shamana* and *Shodhana chikitsa* along with various formulations which results in downward movement of *Vayu* and balance of *Kapha Dosha* in patients of *Tamaka Shwasa* (Bronchial Asthma).

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