

## AN OBSERVATIONAL STUDY ON NIDANAS OF TAMAKA SHWASA W.S.R TO BRONCHIAL ASTHMA

Harsha Radhakrishnan<sup>1\*</sup>, Jaya Saklani Kala<sup>2</sup> and Sanjay Kumar Tripathi<sup>3</sup>

<sup>1</sup>MD Final year, Dept. of Kaya Chikitsa, Rishikul Campus, UAU Haridwar.

<sup>2</sup>Associate Professor, Dept. of Kaya Chikitsa, UAU Campus, Harrawala.

<sup>3</sup>Professor, Dept. of Kaya Chikitsa, Rishikul Campus, UAU Haridwar.

Article Received on  
21 April 2021,

Revised on 11 May 2021,  
Accepted on 01 June 2021

DOI: 10.20959/wjpr20216-20874

### \*Corresponding Author

**Dr. Harsha Radhakrishnan**

MD Final year, Dept. of  
Kaya Chikitsa, Rishikul  
Campus, UAU Haridwar.

### ABSTRACT

In *Ayurveda*, the term *Shwasa Roga* is used to denote the broad spectrum of respiratory disorders. *Tamaka Shwasa* is one among the five types of *Shwasa Roga*. The pathogenesis of *Tamaka Shwasa* is attributed with *Vata* and *Kapha* as the main *doshas*. *Aharaja* and *Viharaja Nidanas* as well as seasonal variations contribute to the manifestation of *Tamaka Shwasa*. *Tamaka Shwasa* is curable only if it is of recent origin and the patient is having strength. The symptoms of *Tamaka Shwasa* are similar to that of Bronchial Asthma in modern medicine. Despite of the advances in treatment, the increasing prevalence of Bronchial Asthma may be related to detrimental changes

in the environment including exposure to air allergens, cigarette smoking, childhood infections and unhealthy dietary habits. Moreover, Asthma has a multifactorial origin of both genetic and environmental factors. The comprehension about Asthma epidemiology will be helpful in decreasing the morbidity and mortality rates. This observational study was conducted in 27 patients to assess the role of *Nidanas* in the pathogenesis of *Tamaka Shwasa*. The study illustrated that *Tamaka Shwasa* is caused predominantly by *Nidanas* which vitiate *Vata* and *Kapha Doshas*.

**KEYWORDS:** *Tamaka Shwasa*, Bronchial Asthma, *Nidanas*.

### INTRODUCTION

*Shwasa Roga* originate from the site of *Pitta* due to the concurrent vitiation of *Vata* and *Kapha*.<sup>[1]</sup> *Tamaka Shwasa* is one among the five types of *Shwasa Roga* which is also *VataKaphatmaka*. When *Vata* taking reverse course reaches respiratory passages seizing neck

and head and aggravating phlegm it produces coryza which creates obstruction and troublesome dyspnoea.<sup>[2]</sup> *Tamaka Shwasa* is *Yapya* in nature.<sup>[3]</sup>

*Tamaka Shwasa* can be correlated with Bronchial asthma in modern medicine. Bronchial asthma is a disease of airways that is distinguished by hyper-responsiveness of tracheobronchial tree to multiple stimuli resulting in extensive spasmodic narrowing of the air passages which may be relieved spontaneously or by treatment. It is an episodic disease manifested clinically by paroxysms of polyphonic wheeze, dyspnoea and cough.<sup>[4]</sup>

Bronchial asthma is common and prevalent worldwide. Around 0.5% to 2% of the population suffers from asthma.<sup>[5]</sup> Asthma affects an estimated 300 million individuals throughout the world. Annually, 15 million disability-adjusted life-years are lost and 250,000 asthma deaths are reported around the globe<sup>[6]</sup> as per the estimation made by World Health Organization (WHO).

*Acharya Charaka* has mentioned common *Nidanas* for all the five types of *Shwasa*. *Tamaka Shwasa* occurs mainly due to *Vata* and *Kapha Prakopa Nidanas*. The major causative factors can be compartmentalised into: -

- **Aharaja nidanas:** *Rukshanna, Vishamashana, Nishpava, Masha, Pinyaka, Tila Taila, Pishta, Shaluka, Vishtambhi- Vidahi- Guru bhojan, Jalaja- Anupa mamsa, Dadhi, Amakshira, Shleshmala ahara*
- **Viharaja nidanas:** *Rajas, Dhuma, Vata, Sheeta sthana ambu sevan, Vyayama, Gramyadharm, Adhwa, AtiApatarpana, Marmaghata, Suddhyatiyoga, Abhishyandi upachara, Kanta-Ura Pratighata*
- **Vyanjaka hetus:** *Megha, Ambu, SheetaPragvata, Sleshmala* foods and regimens.<sup>[7]</sup>

*Tamaka Shwasa* patients who indulge in *Vata & Kapha - Prakopa Nidanas* have aggravation in the symptoms of the disease. The *Nidanas* responsible for the manifestation of *Tamaka Shwasa* are well explained in the *Samhitas*. So, there is a great importance for *Nidanaparivarjana* in the treatment of *Tamaka Shwasa*. This needs sound epidemiological understanding of the disease-that is its magnitude, distribution in time, place and individual, multifactorial causation, sources of infection and dynamics of transmission.<sup>[8]</sup> The rapid industrialisation, excessive crowding, increasing pollution are some of the elements responsible for this upsurge in occurrence of Bronchial asthma. In the current hectic schedule, there is a need for personalised approach regarding the *Nidanas* of *Tamaka Shwasa*

since it varies from patient to patient. Here an observational study was conducted in 27 patients of *Tamaka Shwasa* to analyse various *Nidanas* of the disease. The interpretation of the obtained data shown that *Vata* and *Kapha* vitiating *Aharaja* and *Viharaja Nidanas* as well as seasonal variations triggers *Tamaka Shwasa*.

## MATERIALS AND METHODS

### Aims and Objectives

- To evaluate the *Nidanas* of *Tamaka Shwasa*.

**Study design:** Observational study

### Selection of patients

27 Patients with classical features of *Tamaka Shwasa* attending the OPD and IPD of *Kayachikitsa* of Rishikul Campus Hospital, UAU Haridwar were selected randomly for this clinical study, irrespective of sex, religion, occupation, etc. A detailed Proforma was prepared on the basis of the *Ayurvedic* texts and allied sciences. The patients fulfilling the inclusion and exclusion criteria were registered on this Proforma and scoring of the different clinical features were done on the assessment criteria.

### Inclusion criteria

- Patients presenting with signs and symptoms of *Tamaka Shwasa* for equal to and more than one year as described in *Ayurvedic* texts.
- Patients presenting with 3 or more of the following associated symptoms-

1. <i>Pinasa</i>	2. <i>Ghurghurak</i>	3. <i>Aasya Udhvansa</i>
4. <i>Kantodhvansa</i>	5. <i>Vak kricchrata</i>	6. <i>Lalata Sweda</i>
7. <i>Parshvagraha</i>	8. <i>Ushnabhiprayata</i>	9. <i>Aasya Shushkata</i>
10. <i>Vepathu</i>	11. <i>Aruchi</i>	12. <i>Annadvesh</i>

- Mild intermittent, mild persistent, moderate persistent Asthma according to Global Initiative for Asthma (GINA) guidelines.
- Blood Oxygen saturation (spO<sub>2</sub>) > 90%.
- PEFR > 100 litre/min.
- Age 20-60 years.

### Exclusion criteria

- Severe persistent Asthma according to Global Initiative for Asthma (GINA) guidelines
- H/O Tuberculosis, COPD, Emphysema, Other complicated respiratory diseases.

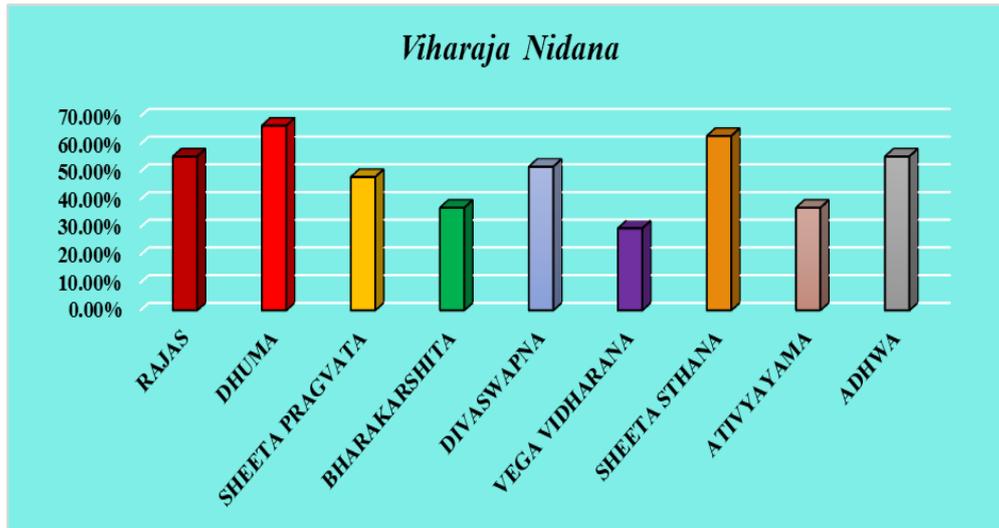
- Known case of Hypertension and Cardiac involvement.
- PEFr < 100 litre/min.
- Blood Oxygen saturation (spO<sub>2</sub>< 90%)
- H/O Endocrine disorders like Diabetes Mellitus.
- Patients with frequent H/O hospitalization due to Status Asthmaticus.

## OBSERVATIONS

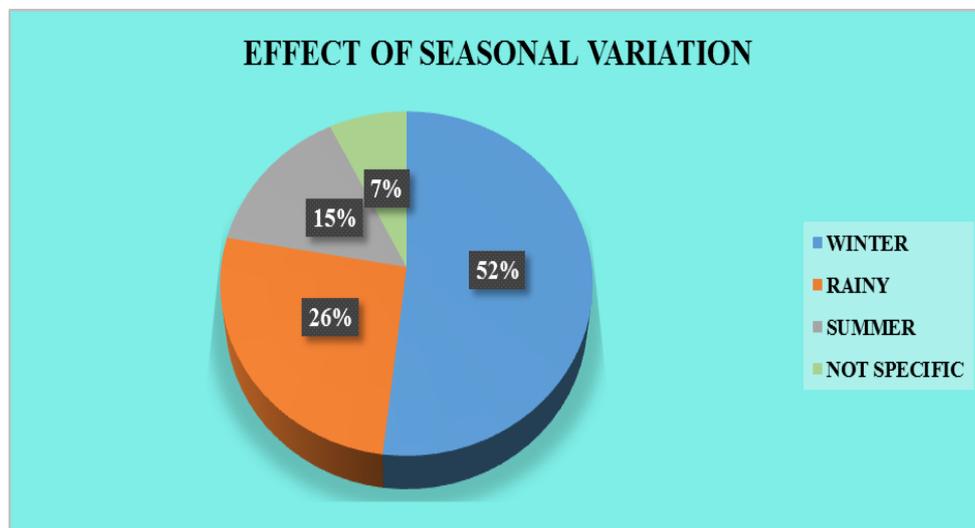
- In this study, 27 patients of *Tamaka Shwasa* were observed, in which maximum number of patients i.e., 44.44% belonged to the age group of 50-60 years. Most of the patients i.e., 51.85% were males followed by 48.15% of females. In religion wise distribution, maximum number of patients i.e., 92.59% were from Hindu community. Most of the patients i.e., 81.48% were married.
- In *Aharaja Nidanas*, maximum number of patients i.e., 74.07% were consuming *Dadhi* followed by *Madhura-Snigdha-Guru bhojana* (70.37%), *Sheetambu*(66.66%), *Rukshanna* (62.96%), *Vishmashana* (59.25%), *Vistambhi & Vidahi bhojana* (55.55%), *Masha* (51.85%), *Jalaja Anupa Mamsa* (40.74%), *Nishpava*(29.62%).
- In *Viharaja Nidana*, maximum number of patients i.e., 66.66% were exposed to *Dhuma*, followed by *Sheeta Sthana*(62.96%), *Rajas* and *Adhwa* (55.5% each), *Divaswapna* (51.85%), *Sheeta Pragvata* (48.14%), *Bharakarshita* and *Ativyayama*(37.03% each), *Vega vidharana* (29.62%).
- Regarding the effect of seasonal variation, maximum number of patients i.e., 51.85% were having frequency of attacks during winter season, 25.92% patients in rainy season while 14.81% of the patients noticed attacks in summer season and 7.4% of the patients were having attacks not specific to any season.



Graph 1: *Aharaja nidana* wise distribution of 27 patients of *tamaka shwasa*.



Graph 2: *Viharaja nidana* wise distribution of 27 patients of *tamaka shwasa*.



Graph 3: Effect of seasonal variation in 27 patients of *tamaka shwasa*.

## DISCUSSION

In *Aharaja Nidanas*, majority of patients i.e., 74.07% were consuming *Dadhi*. *Dadhi* is *Abhishyandi*, *Kaphavardhana*, *Guru* and *Grahi* in nature.<sup>[9]</sup> So it causes *srotoavarodha* which results in the obstruction of *Pranavaha srotas*. 70.37% were consuming *Madhura-Snigdha-Guru bhojana* like jilebi, chocolates, fried items, bakery foods etc. *Madhura*, *Snigdha* and *Guru* are the properties of *Kapha*<sup>[10]</sup> which is the predominant *dosha* here. *Sheetambu* like cold water and cold drinks were consumed by 66.66% of patients. *Sheeta guna* increases both *Vata* and *Kapha* which are the involved *doshas* in *Tamaka Shwasa*. *Rukshanna* like bread, pasta, instant noodles, oatmeal were consumed by 62.96% patients. *Ruksha guna* aggravates *Vata dosha*. Intake of food items having excessive dryness causes *dushti* of *Pranavaha* and

*Udakavaha srotases*. In this study patients were also consuming *Vishmashana* (59.25%) and *Vistambhi-Vidahi bhojana* (55.55%) which are having similar properties of fast foods in present era. These types of *aharas* lead to malfunctioning of *Agni* which consequently results in the formation of *Ama*. *Ama* formation is a major step in the pathogenesis of *Tamaka Shwasa* which is again *Amashaya samudbhava*. *Masha* (black gram) was consumed by 51.85% patients. *Masha* is *guru* and *snigdha*. It is *madhura* in *vipaka* and *rasa*. These properties will aggravate *Kapha* which is the major *dosha* in *Tamaka Shwasa*. *Jalaja-Anupa Mamsa* were consumed by 40.74% patients. These types of *mamsa* are having *madhura rasa*, *snigdha* and *guru guna* which aggravates *Kapha dosha*.<sup>[11]</sup> *Nishpava* (flat beans) was consumed by 29.62%. It is *ruksha*, *guru*, *vidahi* and *vibandhakara*. *Atisevana* of *Nishpava* causes vitiation of *Vata* further causing its *Pratiloma gati*.

In *Viharaja Nidanas*, most of the patients i.e., 66.66% were exposed to *Dhuma* followed by 62.96% patients who were exposed to *Sheeta Sthana*. It is found that smoke, cold and moisture content in the environment are the triggering factors of asthma. 55.55% patients were exposed to *Rajas*. Dust, pollens and other chemicals will trigger the asthma.<sup>[12]</sup> Also 55.55% were doing *Ati-adhwa* which causes *Vata Prakopa* that contributes to the causation of *Tamaka shwasa*. *Divaswapna* was done by 51.85% patients. It leads to *Kapha Prakopa* which aggravates *Tamaka Shwasa*.<sup>[13]</sup> 48.14% patients were exposed to *Sheeta Pragvata* which causes *Vata prakopa*. 37.03% patients were *Bhakarshita* which leads to *Kshaya* of *Dhatus* and subsequently resulting in *Vata Prakopa*. Also 37.03% were doing *Ativyayama* which aggravates *Tamaka Shwasa*. Physical agent like exercise is a triggering factor of asthma. *Vega vidharana* was done by 29.62% which causes *Pratiloma gati* of *Vata*.

Maximum number of patients i.e., 51.85% were having frequency of attacks of the disease during winter season and 25.92% patients were having attacks in rainy season. Physical agent like cold air is a major triggering factor of asthma. *Vyanjaka hetus* like *Meghambu* and *Sheeta pragvata* will aggravate the disease.<sup>[14]</sup> So, *Aharaja* and *Viharaja Nidanas* cause *Tamaka Shwasa*. Also *Tamaka Shwasa* shows a seasonal effect in aggravation and relieving of the disease.

## CONCLUSION

*Tamaka Shwasa* is a *Vata-Kaphaja vyadhi* of *Pranavaha srotas*. This observational study on *Tamaka Shwasa* illustrated that *Nidanas* quoted in *Ayurvedic* classics are in illustrated with that of modern-day epoch. Thus the outcomes drawn from the observations substantiate the

role of *Aharaja* and *Viharaja Nidanas* as well as seasonal variation in the manifestation of *Tamaka Shwasa*. So, this indicates the importance of *Nidanaparivarjana* (avoidance of causative elements) in the management of *Tamaka Shwasa*. Abstinence from the causative elements will halt the disease process due to non-availability of things which might further triggers a vitiated *dosha* or manifested disease. As part of this, a major diet and life-style modification is needed in these patients. This study also indicates the significance of treatment that alleviate *Vata* and *Kapha*, as the *Nidanas* were mainly aggravating these doshas in *Tamaka Shwasa* patients which is already cited in the classics.

## REFERENCES

1. Agnivesa, Caraka Samhita (vol IV). Translated by Dr.Ram Karan Sharma, Vaidya Bhagwan Dash. Varanasi: Chowkhamba Sanskrit Series Office; Reprint, 2011; 118.
2. Agnivesa, Caraka Samhita (vol IV). Translated by Dr.Ram Karan Sharma, Vaidya Bhagwan Dash. Varanasi: Chowkhamba Sanskrit Series Office; Reprint, 2011; 31.
3. Vagbhata. Ashtanga Hridayam(vol II). Translated by Prof. K.R.Srikantha Murthy. Varanasi: Chowkhamba Krishnadas Academy, 2012; 38.
4. Harsh Mohan, Textbook of Pathology, New delhi, Jaypee Brothers Medical Publishers (P) Ltd, 2015; 7: 463.
5. K V Krishna Das, Textbook of Medicine, New delhi, Jaypee Brothers Medical Publishers (P) Ltd, 2008; 5: 917.
6. Bateman ED, Hurd SS, Barnes PJ, Bousquet J, Drazen JM, FitzGerald M, et al. Global strategy for asthma management and prevention: GINA executive summary. *Eur Respir J*, 2008; 31(1): 143-78.
7. Agnivesa, Caraka Samhita (vol IV). Translated by Dr.Ram Karan Sharma, Vaidya Bhagwan Dash. Varanasi: Chowkhamba Sanskrit Series Office, 2011; 131.
8. K. Park, Park's Text book of Preventive and social medicine, 25th edition, Pune, M/s Banarsidas Bhanot publishers, 2019; 130.
9. Vagbhata. Ashtanga Hridayam (vol I). Translated by Dr. T. Sreekumar, Thrissur: Publication Department of Harisree Hospital, 2011; 3: 122.
10. Vagbhata. Ashtanga Hridayam (vol I). Translated by Dr. T. Sreekumar, Thrissur: Publication Department of Harisree Hospital, 2011; 3: 37.
11. Agnivesa, Caraka Samhita (vol I). Translated by Dr.Ram Karan Sharma, Vaidya Bhagwan Dash. Varanasi: Chowkhamba Sanskrit Series Office, 2011; 1: 504.

12. Harsh Mohan, Textbook of Pathology, New delhi, Jaypee Brothers Medical Publishers (P) Ltd, 2015; 7: 464.
13. Agnivesa, Caraka Samhita (vol I). Translated by Dr. Ram Karan Sharma, Vaidya Bhagwan Dash. Varanasi: Chowkhamba Sanskrit Series Office, 2011; 7: 383.
14. Agnivesa, Caraka Samhita (vol IV). Translated by Dr.Ram Karan Sharma, Vaidya Bhagwan Dash. Varanasi: Chowkhamba Sanskrit Series Office, 2011; 7: 131.