



## A CASE STUDY ON AYURVEDIC MANAGEMENT OF TAMAKA SHWASA WITH CHITRAKA HARITAKI AVALEHA

Poonam Gaur<sup>\*1</sup>, Shivam Chaubey<sup>2</sup>, K. S. Patel<sup>3</sup>

<sup>1</sup>Assistant Professor, Dept. of Kaumarbhritya, SBSJS Ayurvedic Medical College and Hospital, Farrukhabad.

<sup>2</sup>Assistant Professor, Dept. of Agad Tantra, SBSJS Ayurvedic Medical College and Hospital, Farrukhabad.

<sup>3</sup>Prof. and Head, Dept. of Kaumarbhritya, I.P.G.T. & R.A., Gujarat Ayurved University, Jamnagar-361008.

**\*Corresponding Author: Dr. Poonam Gaur**

Assistant Professor, Dept. of Kaumarbhritya, SBSJS Ayurvedic Medical College and Hospital, Farrukhabad.

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### ABSTRACT

Bronchial Asthma is a chronic inflammatory condition of the lung airways resulting in episodic airflow obstruction.<sup>[1]</sup> and Ayurveda address it as “*Tamaka Shwasa*.” *Tamaka Shwasa* is a type of *Shwasa Roga* affecting the *Pranavaha Srotas*. *Pranavilomata* (abnormal breathing pattern), *Hridaya Pidana* (chest tightness), *Ruddha Shwasa* (difficulty in breathing), *Ghurghurukama* (wheeze) and *Kasa* (cough) are the cardinal features of the disease.<sup>[2]</sup> So the sign and symptom of *Tamaka Shwasa* are very similar to Bronchial Asthma. By improving the life style and by Ayurvedic management it can be minimize. Here, an effort was made to treat a 6 year old male child with diagnosed case of *Tamaka Shwasa*. At the end of 42 days treatment with *Chitraka Haritaki Avaleha* given orally resulted in 60-70% improvement in overall presentation of the condition.

**KEY WORDS:** *Tamaka Shwasa*, Ayurveda, *Chitraka Haritaki Avaleha*, Bronchial Asthma.

### INTRODUCTION

Bronchial asthma is a common and life threatening problem affecting school children and adolescents. The flare-up of asthma may lead to impaired daily function and absence from school. Asthma is the most common chronic lower respiratory disease in childhood throughout the world and Ayurveda address it as “*Tamaka Shwasa*.” There are five kinds of *Shwasa*: *Kshudra*, *Tamaka*, *Chhinna*, *Maha* and *Urdhava*. *Tamaka Shwasa* is a type of *Shwasa Roga* affecting the *Pranavaha Srotas*. *Vata* moving in the reverse order pervades the channels (of vital breath), afflicts the neck and head, and stimulates *Kapha* (phlegm) to cause *Margavarodha* (blockage of respiratory passage) by producing broncho constriction. *Tamaka Shwasa* classified as *Vata Pradhana* and *Kapha Pradhana*. *Tamaka Shwasa* is a “*Swatantra*” *Vyadhi* having its own etiological factors, patho-physiology and management. It is mentioned as *Yappa Vyadhi*<sup>[3]</sup> i.e. a disease of chronic nature in *Charaka Samhita*, while *Sushruta* considered it as *Krichchra Sadhya Vyadhi*.<sup>[4]</sup> The parallel disease entity in contemporary medical science to this disorder is Bronchial Asthma. The prevalence of Bronchial Asthma has increased continuously since the 1970s, and now affects an estimated 4 to 7% of the people worldwide.<sup>[5]</sup> At the age of six to seven years, the prevalence ranges from 4-32%. Apart from being the leading cause of hospitalization for children, it is one of the most

important chronic conditions causing elementary school absenteeism.<sup>[6],[7]</sup> Though environmental control measures are important to avoid or eliminate factors that induce or trigger asthma flare-ups; various formulations are available in Ayurvedic classics to manage the condition. The treatment should be aimed to remove the obstruction made by *Kapha* and normalize the function of *Vayu*.<sup>[8]</sup> The drug selected in this study are having properties to remove the obstruction made by *Kapha* in the *Pranavaha Srotas* and related system and normalize the functioning of *Vayu*. By virtue of *Rasayana* (immunomodulator) properties of drug, that regularize the *Dhatwagni* and promote the normal condition of the child.

### CASE REPORT

**Basic information of the patient** - A 6 year old male child residing in Farrukhabad was brought to Kaumarbhritya OPD, SBSJS Ayurvedic medical college and hospital, Farrukhabad by his parents, presented with chief complaint of difficulty in breathing since 2 years, 4-6 attacks of breathlessness in last 12 months, duration of *shwasavega* is ½ hrs, Recurrent cough and cold since 3 years, coughing associated with vomiting, awakening in night due to severe coughing since one year on and off, chest tightness, sweating during attack, congestion in throat and sinuses, headache etc. *Shayanah Shwasa Piditah* (Orthopnoea- discomfort in supine position) with

*Asyodhvansate Kantha* (Hoarseness of voice), *Muhu shwaso Muhuschaiva Avadhmyate* (Intermittent chocking of breathing), *Megha-Ambu-Shita-Pragvatai-Shleshmalescha Abhivardhate* (Severity increases during cloudy, rainy, cold, airy and humid day/season) were the Associated complaints of *Tamaka Shwasa*. Present history with the chronic onset of duration 1-5 years. Progression was gradual with the seasonal and diurnal variation. On asking regarding *Purva vyadhi vritta* (past disease history) mother told that child were having repeated colds, cough and recurrent viral lower respiratory tract infections. On asking *Kulaja vyadhi vritta* (family history) no history of *Tamaka shwasa* (asthma), allergic manifestation and skin allergy. On asking birth history child ever breast fed for less than 6 months. Immunization was done proper as per schedule. *Vaiyaktika Itivritta* (personal history)- in this *Aharaja* (Dietic History)- diet was vegetarian, dietetic habits were *Vishamashana* and *Viruddhashana*. Dominance of *rasa* in diet were *Madhura*, *Amla* and *Lavana* and dominance of *guna* in diet were *guru*, *sheeta* and *snigdha* and cold beverages aggravated the symptoms. In the *Viharaja* (life style)- *Nidra* (sleep) was unsatisfactory, *Mal Pravrutti* (Bowel Habit)- Irregular and current/past exposure of dust. Emotional make up was irritative.

#### **Nidana (Triggering factors)**

- Dietic (Aharaja):** *Vishamashana* (Irregular diet), *Dvandatiyoga* (Mutually antagonistic), *Shitashana* (cold diet), *Pishtanna* (fried diet) and *Dadhi* (Curd).
- Environmental exposure/Physical activities (Viharaja):** *Raja* (dust), *Dhuma* (smoke), *Vata sevana*, *Shitasthana Sevana* (cool place) and *Vega Vidharana* (suppression of urges).
- Aggravating diseases (Nidanarthakara Roga):** *Vibandha* (Constipation), *Pratishyaya* (Coryza), *Kasa*, *Daurbhalya* (Weakness) and *Chhardi* (Vomiting).

**General Examination:** Vitally stable and oriented. *Prakriti* (constitution) was *Vatakaphaja*. *Sara*, *Samhanana*, *Pramana* were *Madhyama*. *Satmya* and *Satva* were *Avara*. *Abhyavarana Shakti* and *jarana Shakti* were *avara*. Body weight and height were 9k.g and 72c.m. respectively. BMI were 17.36 k.g./m<sup>2</sup>.

#### **Systemic examination**

- A. Respiratory system:** (a) Inspection- respiration rate 22 per minute, character of respiration Abdominothoracic, inspiration deep and expiration short.  
(b) Palpitation- no any deformity  
(c) Percussion- Resonant node  
(d) Auscultation-broncho-vesicular sound, Adventitious sounds- generalized wheezing was found, chest was found congested, Air entry bilaterally equal.  
X-ray chest shows no any structural abnormality.

#### **Personal history**

Apetite- loss of appetite, Sleep- Disturbed; Bowel- 1 time per day, consistency hard; Urine- 6-7 times per day.

**Birth history:** Full term normal delivery at hospital, cry soon after birth, Birth weight-2.20kg, no history of NICU Admission.

**Immunization history and growth and development:** Proper till date.

#### **MATERIALS AND METHODS**

**Drugs:** *Chitraka hariitaki avaleha* 15gm given muhurmuha orally with luke warm milk or water. (dose calculated according to sharngdhar samhita dose fixation guidelines.)

Duration of the therapy – 6 weeks

Duration of follow up - 8 weeks

**Table 2.1: Contents of Chitraka haritaki Avaleha.**

| Sr. No. | Drug name    | Scientific name/English name                 | Part used                  | Ratio   |
|---------|--------------|----------------------------------------------|----------------------------|---------|
| 1       | Chitraka     | <i>Plumbago zeylanica</i> Linn.              | Mula                       | 25part  |
| 2       | Amalaki      | <i>Emblca officinalis</i> Gaertn.            | Phala                      | 25part  |
| 3       | Guduchi      | <i>Tinospora cordifolia</i> Mier ex Hook     | Kanda                      | 25part  |
| 4       | Haritaki     | <i>Terminalia chebula</i> Retz.              | Phala                      | 32part  |
| 5       | Brihati      | <i>Solanum indicum</i> Linn.                 | Mula                       | 2.5part |
| 6       | Kantkari     | <i>Solanum surattense</i> Burm.              | Mula                       | 2.5part |
| 7       | Shalparni    | <i>Desmodium gangeticum</i> DC.              | Panchanga                  | 2.5part |
| 8       | Prishnaparni | <i>Uraria picta</i> Desv.                    | Mula                       | 2.5part |
| 9       | Gokshura     | <i>Tribulus terrestris</i> Linn.             | Mula                       | 2.5part |
| 10      | Gambhari     | <i>Gmelina arborea</i> Linn.                 | Mula                       | 2.5part |
| 11      | Patla        | <i>Stereospermum suaveolens</i> DC.          | Mula                       | 2.5part |
| 12      | Shyonaka     | <i>Oroxylum indicum</i> Vent.                | Mula                       | 2.5part |
| 13      | Agnimantha   | <i>Premna mucronata</i> Roxb.                | Mula                       | 2.5part |
| 14      | Bilva        | <i>Aegle marmelos</i> Corr.                  | Mula                       | 2.5part |
| 15      | Yavakshara   | Alkaline substance of <i>Hordeum vulgare</i> | Water soluble ash of plant | 1/4part |
| 16      | Guda         | Zaggery                                      | -                          | 50part  |
| 17      | Madhu        | Honey                                        | -                          | 4part   |

| PRAKSHEP DRAVYA- |          |                                |       |       |
|------------------|----------|--------------------------------|-------|-------|
| 18               | Sunthi   | Zingiber officinale Rosc.      | Kanda | 1part |
| 19               | Maricha  | Piper nigrum Linn.             | Phala | 1part |
| 20               | Pippali  | Piper longum Linn              | Phala | 1part |
| 21               | Dalchini | Cinnamomum zeylanicum Breyn    | Twak  | 1part |
| 22               | Ela      | Elettaria cardamomum Maton.    | Bija  | 1part |
| 23               | Tejpatra | Cinnamomum tamala Nees & Eberm | Patra | 1part |

### Subjective criteria of assessment

1. **Rogabala** (cough, wheezing, trouble breathing and activity limitation etc.)
2. **Agnibala** (Abhyavaharana Shakti, Jarana Shakti, Kshudha etc.)
3. **Dehabala** (Bala Vriddhi, Svava varna yoga etc.)
4. **Sattvabala** (Nidralabhe Yathakalam etc.).

2. QOL(Quality of Life) parameters for Asthma patients
3. ACQ(Asthma Control Questionnaire) for short term control
4. ACT(Asthma control test) for intermediate control.
5. GINA (Global initiative for asthma).

### Criteria for Assessment and Statistical Analysis

#### Objective Parameters

1. Positive changes in blood picture, including AEC

## RESULTS

**Table-2. Effect of Therapy on Subjective parameters.**

| Parameter                  | Before Treatment | After Treatment |
|----------------------------|------------------|-----------------|
| Breathlessness             | Grade 3          | Grade 1         |
| Paroxysm of breathlessness | Grade 2          | Grade 0         |
| Cough                      | Grade 3          | Grade 1         |
| Awakening in night         | Grade 3          | Grade 1         |
| Breath holding time        | 16 seconds       | 28 seconds      |

- ❖ Breathlessness- Not troubled by breathlessness except on strenuous exercise.
- ❖ Cough- No kasavega
- ❖ Awakening in night- No night symptoms
- ❖ No coughing in early morning and late night
- ❖ Showed better improvement in all parameters like Dehabala, Satvabala, Abhyavaharana Shakti, Jarana Shakti, Nidralabho yathakalam and WHO-QOL parameters.
- ❖ Appetite increased
- ❖ Body wt is increased for 1.9 kg.

**Table-3. Effect of Therapy on Objective Parameters.**

| Parameters | Before Treatment | After Treatment | % Improvement |
|------------|------------------|-----------------|---------------|
| AEC count  | 1200             | 196             | 83.67         |
| ESR        | 12               | 5               | 58.34         |
| ACQ        | 13               | 5               | 61.54         |
| GINA       | 3                | 1               | 66.67         |
| ACT        | 7                | 16              | 56.25         |

On investigations (Haematological, Spirometry, Peak Expiratory Flow Meter)

- ❖ Peak expiratory flow rate has increased from 210 to 320 L/min
- ❖ Level of AEC was reduced from 1200 cell/microL to 196cell/microL
- ❖ ESR was reduced from 13mm/hr to 05mm/hr.
- ❖ Results showed improvement in AEC, ACQ, GINA and Spirometry showed improvement in FEVI of 1%.

## DISCUSSION

The treatment should be aimed to remove the obstruction made by *Kapha* and normalize the function of *Vayu*. Most of the drugs used in Chitraka haritaki avaleha

having the RASA- katu, tikta, kasaya, Virya- ushna, Vipaka- katu, Guna- laghu, ruksha, tikshna. Majority of the drugs of *Chitraka Haritaki Avaleha* have *Tikta* and *Katu Rasa*. Therefore combination has strong *Amapachana* and *kaphahara* property along with *Srotoshuddhikara* and *Srotomukha Shodhana* and *Srotomukha Vivritakara* property (dilatation of channels including bronchial tree). The drug also have the rasayana properties which regularize the dhatwagni. Pharmacological properties of all drugs of chitraka haritaki avaleha having the Antiallergic, antiinflammatory, Antitussive, Expectorant, antihistaminic and immunomodulatory actions. Therefore the above drugs are useful in the treatment of *Tamaka Shwasa* (Bronchial Asthma) in children without any adverse reactions.”

### Hematological changes

AEC and Eosinophil count markedly decrease comparison to other parameters. The drug showed better effect on hematological changes in Polymorphs, lymphocytes, eosinophils, ESR and AEC.

### CONCLUSION

After analysis of above datas it concludes that chitaka haritaki avaleha is effective in treating the case study of tamaka shwasa (Bronchial asthma) in children and gives better relief to the patient.

### ADR

No adverse drug reaction found during the course of treatment.

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