

## EVALUATION OF THE EFFICACY OF BHARANGI GUDA AND VASAADI KWATHA IN THE MANAGEMENT OF TAMAKA SHWASA W.S.R TO BRONCHIAL ASTHAMA

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### ABSTRACT

*Tamaka shwasa* could be a terribly broad term which has more diseases wherever dyspnea is predominant symptom. In its early onset it's simply curable however in chronic cases it's troublesome to treat. There are the episodes of malady, so the lifetime of the patient is vulnerable. *Acharya Charaka* delineated that *Tamak Shwasa* is *Yappya* sort of malady during which patient should depend on medicines for the relief. This article is based on the evaluation of efficacy of Bharangi Guda and vasaadi kwath in the management of Tamaka Shwasa. Hence a trial will be taken on Total 40 Patients of *Tamaka Shwasa*. Two groups i.e, 20 patients in each group will be made on the basis of inclusion and exclusion criteria depending on the detailed

clinical history, physical examination and other necessary / desired investigations and irrespective of their gender caste or creed. Both the groups will be given two different medicines and then a comparison will be made on the basis of result.

**KEYWORDS:** *Tamak Shwasa, Yappya, Bharangi Guda, Vasaadi kwaath.*

### INTRODUCTION

There are many disease in *Ayurveda* which takes a great tool of life but not to the extent of *Shwasa* and *Hikka*. The severity of *Shwasa Roga* is emphasized by *Acharya Charak* thousands of year back.

Now a days *Shwasa* is one of the major disease that causes medical emergencies many factors are supposed to be an increasing factors of the disease.

“कामं प्राणहरा रोगा बहवो न तु ते तथा |

यथा श्वासश्च हिक्का च प्राणानाशु हनकृ न्ततः|| च.हच.१७/६.

*Shwasa* word indicates both physiological and pathological state of respiration. In *Ayurveda* *Shwasa Roga* is five types. *Tamaka Shwasa* is one of them. *Tamaka* means darkness during the attack patient feels dark in front of his eyes he can't see anything and become breathless.

*Charaka* has mentioned that *Tamaka Shwasa* is *Kapha Vataja Vikar* and site of origin is *Pitta sthana*. Both the Vata and Kapha have been considered to be the chief Doshas involved in the pathogenesis of *Tamaka Shwasa*. Among the five types of *Sharira Vayu - prana Vayu* get vitiated during this disease.

When Vata is obstructed by vitiated Kapha, it get reverses and affect the *Prana vaha Srotas* and producing *Dyspnea* associated with wheezing sound, Cough, labored breathing etc. Due to constant coughing patient become unconscious, greatly distressed and feels comfort for a while when the sputum being expectorated. Throat of the patient is severely affected, and speaks hardly. He feels discomfort in lying down position, so unable to get a sleep. He feels comfort in sitting or in propped up posture. He likes to take hot things only. His eyes are protruded, forehead is covered with sweat and he feels a great distress all the times. His mouth becomes dry. These symptoms are intensified by cloudy, humid and cold weather, easterly winds, foul smelling and by taking Kapha increasing things. The *Tamaka Shwasa* (*Bronchial Asthma*) is *Yapya*. It is curable if it is of recent origin. *Sushruta Samhita*, *Madhava Nidana* and *Yogratnakar* it is mentioned that *Tamaka Shwasa* is a *Kapha* predominant disorder.

“कफवातात्माकावेतोहितस्थानसमुद्भावाः”

According to modern medical science *Bronchial Asthma* is mainly a chronic inflammatory disease, affecting the air tubes leading to labored breathing. The main cause of inflammation is chronic irritation due to hyper-reactivity of lung immune system induced by different kinds of external and internal allergens. *Bronchial asthma* is a major global health problem which can affect the population irrespective of age, sex economic status etc. It is very common in all age groups but predominantly in early age group.

The prevalence of asthma among adult aged people above 15 years is 2.05%.

By WHO in India has estimated 15-20 million Asthmatics.

In India rough estimates indicates a prevalence of between 10% & 15% in 5-11 year old children's.

## REVIEW OF LITERATURE

### (1) *Samhita Kaal*

**Charak Samhita:** The complete detailed description of *Shwasaroga* is described in *Charak Samhita* 17<sup>th</sup> chapter of *Chikitsa sthan* where he explains the complete pathogenesis of *Shwasa Roga* and its treatment along with *Hikka*.

-In *Shusruta Samhita*: In chapter 51 *Susruta. Samhita Uttartantra* is gives the detailed description. *Shwasa roga* with the *Pancha Nidana* and *Chikitsa*.

### (2) *SangrahaKaal*

-*AstangaSangraha*: Here *nidan* and *chikitsa* in two separate chapter and *sthanas* and it says that *kasaroga* is the cause of *shwasa*.

-*Astangahridaya*: 4<sup>th</sup> chapter of *Nidan* and 4<sup>th</sup> chapter of *Chikitsa Sthana* give's the detailed description of *Shwasaroga*.

### -*Madhavakara*

-*Nidan, Lakshana, Samprapti, Sadya-asadyata* and *chikitsa* are explained in *Bhava Prakash*

-*Nidan, lakshana, samprapti* are explained in *Madhav Nidan* 12<sup>th</sup> chapter.

*madhyamkhand* 14<sup>th</sup> chapter.

## Yogratnakar

-*Nidan, Lakshana, samprapti* and *chikitsa* are explained in *Shwaasnidan*.

## DRUG REVIEW

Regarding the *Chikitsa Siddhant Acharya Charak* and other *Acharyas* have clearly mentioned that *Vata kapha Shamak -Ushna Vataanuloman Bsheshaj pane Vamanna* should be used in the management of *Tamaka Shwasa*. It has been also said that the drug which pacifies the *Vata* and vitiates the *Kapha* and which pacifies the *Kapha* and vitiates the *Vata* should not be used alone in the management of *shwasaroga* and, if none other option is available. It is always better to go for *Vata shamak Chikitsa* Role of *Brihanchikitsa* has been told the better prospect as compared to *shaman* and *Karshan Chikitsa* in case of *Shwasaroga*.

यत् किञ्चित् कफवातघ्नम् उष्णं वातनुलोमनां

भेषजं पानामन्नं वा तद्धितं श्वासहिवकनो॥च.चि.17/147

वातकृदा कफहृत् कफकृदाअनिलापहं ।

कार्यं न एकान्तिकं ताभ्यां प्रायःश्रेयोअनिलापहं ॥ च.चि.17/148

सर्वे बृहणे हृत्पः श्वयश्च प्रायशो भवेत् ।

नात्यर्थं शमनेअपायो भृशोअश्वयश्च कश्नि ॥ च.चि.17/149

Considering the above facts regarding the *Chikitsa* of *Tamaka Shwasa*. The drug chosen for its management is *vasaadi kwatha* and *bharangi guda*.

In Allopathic system of medicine there are so many treatment modalities to manage Bronchial Asthma but patient has to rely on them throughout the life and the side effects of the drugs puts hazardous effect which throws the patient into the vicious circle of unending diseases. *Ayurveda* the science of life has told many treatment modalities to deal with the *Tamaka Shwasa*. Role of *Vasadi Kwath* and *Bharangi guda* in the management of *Tamaka Shwasa* has been mentioned in the *Yogaratanakar* and *Chakradatta*.

By looking at the individual herbal constituents and their pharmacological action as mentioned in *Ayurvedic* literatures as well as shown in recent studies, it appears that this kind of study will definitely benefit the *Tamaka Shwasa* patients with effective *Ayurvedic* remedy by diminishing the recurrence of episodes of *Tamaka Shwasa*.

So it's my humble work to manage a treatment modality in *Tamaka Shwasaw.s.r.* to Bronchial Asthma.

### AIMS AND OBJECTIVES

The aim and objective of the study are

- To study the aetiopathogenesis of *Tamaka Shwasa*.
- To evaluate the efficacy of *Vasadi Kwath* in the management of *Tamaka Shwasa*.
- To evaluate the efficacy of *Bharangi Guda* in the management of *Tamaka Shwasa*.
- To identify the best and effective treatment for the management of *Tamaka Shwasa*.

**PLAN OF STUDY****(A) Selection of Patients**

Total 40 Patients of *Tamaka Shwasa* will be selected from the O.P.D. / I.P.D. of P.G. deptt. Of *Kayachikitsa*, Rishikul Campus, Haridwar, Uttarakhand. The study will be conducted on the patients randomly divided into 2 groups that means 20 patient in each group on the basis of inclusion and exclusion criteria depending on the detailed clinical history, physical examination and other necessary / desired investigations and irrespective of their gender caste or creed.

**(B) Selection of Drug**

*Vasadi Kwath Bharangi guda*

**(C) Dose of Drug**

*Vasadi Kwath*-40ml 1hr after meal

*Bharangi guda*-10gm bd

**(D) Duration of study:** 60 days**(E) Type of Study:** Single blind**(F) Assessment of Patients**

The assessment of the patients will be done before, during and after completion of the trial i.e. for 15 days.

**(G) Drug Trial Schedule**

Group: The selected patients for trial will be randomly divided into following 2 group

GROUP I -Patients will be treated with *Bharangi guda*

GROUP II -Patients will be treated with *vasaadi kwatha*

**(H) Inclusion Criteria**

- Presence of symptoms of airflow obstruction(2 or more of cough, wheezing, dyspnea).
- Airflow obstruction is atleast partially reversible.
- Oxygen saturation > 90%
- Cases included from intermittent, mildly persistent to moderate persistent asthma.
- PEF 100 – 300 ml/min = Moderate Exacerbation.
- Age 18-70 years.

**(I) Exclusion Criteria**

- PEF < 100 litre/min = Severe Exacerbation (Status Asthmaticus).
- Oxygen saturation < 90%.
- Chronicity more than 10 years.
- *Asadhya Lakshanas* of *Tamaka Shwasa*.
- The patient with H/O Tuberculosis, COPD, Emphysema, Chronic airway obstruction H/O Cardiac involvement.
- H/O Endocrine disorders like diabetes mellitus, Thyroidism.
- Other complicated respiratory diseases having any organic lesion such as tumor or any anatomical defect in airway.
- If the patient exhibits short seasonal changes of less than 4 weeks duration.
- Any other physical and surgically ill patient will be excluded

**(J) Criteria For Withdraw**

- |                                  |                               |
|----------------------------------|-------------------------------|
| (1) Personal matters             | (3) Aggravation of complaints |
| (2) Intercurrent illness         | (4) Any other difficulties    |
| (5) Leave against medical advice |                               |

**(K) Criteria For Assessment**

The assessment of the trial will be done on the basis of following parameters

1. Subjective
2. Objective

**Subjective:** The subjective assessment will be done on the basis of improvement in signs and symptoms of *Tamaka Shwasa* described in classics before during and at the end of the trial.

**Objective:** The objective assessment will be done on the basis of changes in clinical findings relevant laboratory parameters and Pulmonary Function Test before during and at the end of the trial.

**(L) Investigations**

These investigations will be carried out before during and at the end of the trial.

1. Blood for Hb%, TLC, DLC, AEC, ESR
2. Urine Routine and microscopic
3. Peak Flow Meter Test

4. Chest X-ray (P.A view}
5. ECG (If required?)
6. Sputum Analysis(if required)

### DIAGNOSTIC CRITERIA

An extensive proforma was compiled on the basis of classical signs and symptoms of the *Tamaka Shwasa* as per the *Ayurveda* & modern classics. A detailed clinical history and respiratory examination was done and the data was collected. A complete history taking *dashvidh pariksha* etc. of each patient was compiled and filled in proforma. PEFR was done assisted by laboratory finding of the disease. All vital signs like B.P, Pulse Rate, Respiratory rate were noted and Peak Flow Meter reading was taken before and during treatment for assessment.

### LABORATORY PARAMETER

Pulmonary Function Test

Haemogram: Hb%, TLC, DLC, ESR, AEC Chest X – Ray (Radiography)

### STUDY PLAN

The complete study was done on 60 patients of *Tamaka Shwasa*. They were divided into 3 groups, 20 patients in each group for a period of 2 months and assessment was done after the interval of 15-15 days.

The treatment schedule for each group is classified as follows.

Group	No. of pt's	Drug	Dose	Duration
I	20	<i>Bharangi Guda</i>	5 gm twice in a day with	2 months
II	20	<i>Vasaadi Kwatha</i>	40 ml twice in a day	2 months

### LABORATORY INVESTIGATIONS

- Haematological investigations after completion of treatment were repeated.
- Respiratory function tests were repeated before, during and at the end of trial.
- Peak Expiratory Flow Rate
- Breath holding time
- Chest Expansion

For the signs and symptoms of the disease *Tamaka Shwasa*, grading was done depending upon the severity and assessment was done on the following *lakshanas* graded.

All the signs & symptoms were given scores depending upon their severity before, during and at the end study. They are as follows:

- **Frequency of *Shwasa Vega***

- 0 No attack during 15 days
- 1 1 - 15 attack during 15 days
- 2 6 - 10 attack during 15 days
- 3 11 – 15 attack during 15 days
- 4 > 15 attack during 15 days

- **Intensity and Duration of attack**

- 0 No attack
- 1 Attack lasting 10 mins, resolution without medication.
- 2 Attack lasting ½ hour resolution without medication.
- 3 Attack lasting ½ hour resolution with *ushnopchara*.
- 4 Attack lasting more than ½ hour resolution only after medication.

- **Number of Emergency medicine taken**

- 0 None
- 1 Occassionally during attack
- 2 Regular Oral / Inhaler
- 3 Regular Oral + Inhaler
- 4 Regular Oral + Inhaler + Occasional injectibles

- **CARDINAL SYMPTOMS**

- ***Shwasakrichhata***

- 0 No sign of *Shwasakrichhata*
- 1 Slight *Shwasakrichhata* after heavy work
- 2 *Shwasakrichhata* on slight exertion like walking
- 3 *Shwasakrichhata* even at rest
- 4 Very severe *Shwasakrichhata* and require medication / hospitalization.

- ***Kasa***

- 0 No *Kasa*
- 1 *Kasavega* sometimes but is not troublesome
- 2 Troublesome *Kasa*, but do not disturb the sleep

3 Very troublesome *Kasa*, does not even allow to sleep.

- ***Pinasa***

0 No *pinasa*

1 *Pinasa* along with attack

2 *Pinasa* even without attack

3 *Pinasa* always persisting

- ***Parshvashula***

0 No *Parshvashula*

1 *Parshvashula* along with the attack

2 Very often *Parshvashula* even without attack

3 Always *Parshvashula*

- ***Ghurghurukam*(Wheezing)**

0 No Wheezing

1 Wheezing only at night

2 Wheezing at night and occasionally during day time

3 Wheezing throughout the day

- ***Kapha nishthivana***

0 No *kaphanishthivan*

1 Occasional *kaphanishthivan*

2 Very often *kaphanishthivan*

3 Always *kaphanishthivan*

- ***Rhonchi***

0 Absence of *Rhonchi* on normal breathing & deep breathing.

1 Absent on normal breathing but few *rhonchi* on forced breathing.

2 A few scattered bilateral *rhonchi* on normal / deep breathing.

3 Innumerable high pitched bilateral *rhonchi* on normal / deep breathing.

- ***Crepitation***

0 Absence of *crepitation* on normal breathing & deep breathing

1 Absent on normal breathing but few *crepts* on forced breathing.

- 2 A few scattered bilateral crepts on normal / deep breathing
- 3 Innumerable high pitched bilateral crepts on normal / deep breathing.

- **ASSOCIATED SYMPTOMS**

- ***Aasino labhate saukhyam***

- 0 No aggravation of symptoms on lying position
- 1 Temporarily feels better in sitting posture
- 2 Sitting posture gives relief
- 3 Spontaneous sitting posture, can't sleep

- ***Kanthodhvansanam***

- 0 No *Kanthodhvansanam*
- 1 Occasional *Kanthodhvansanam*
- 2 Very often *Kanthodhvansanam*
- 3 Always *Kanthodhvansanam*

- ***Shleshma vimokshante labhate sukham***

- 0 *Shleshma vimokshante labhate sukham easily* without any effort
- 1 *Shleshma vimokshante labhate sukham* with mild effort
- 2 *Shleshma vimokshante labhate sukham* with moderate effort
- 3 *Shleshma vimokshante labhate sukham* with severe effort

- ***Anidra***

- 0 Sound sleep
- 1 Undisturbed late sleep
- 2 Sleep disturbed in late night and early morning
- 3 No sleep

- ***Ushnena abhinanditi***

- 0 No particular
- 1 Likes if available
- 2 Always prefer
- 3 Can't take cold things

- ***Vishushkasyata***
  - 0 No *Vishushkasyata*
  - 1 Occasional *Vishushkasyata*
  - 2 Very often *Vishushkasyata*
  - 3 Always *Vishushkasyata*

The *Bala* was also assessed by the following scores

- ***Agni bala***
  - 0 Persisting of low appetite or frequently loosing appetite and unable to consume even low diet.
  - 1 Presence of moderate appetite but delayed appearance of appetite in next meal hour.
  - 2 Presence of moderate appetite and prompt appearance of appetite in next meal hour.
  - 3 Takes full diet and also presence of proper appetite at the next meal hour.
- ***Sharirika bala***
  - 0 Fatigue even at rest.
  - 1 Fatigue on routine work.
  - 2 Fatigue on over exertion.
  - 3 No Fatigue even on over exertion.
- ***Manasika bala***
  - 0 Gets mental disturbance even without significant cause.
  - 1 Gets mental disturbance for mild causes.
  - 2 Gets mental disturbance for moderate causes.
  - 3 Rarely gets mental disturbance.

### **FOLLOW UP STUDY**

After the completion of the treatment, the follow up study was done after two months to note the recovery of attacks and symptoms.

### **CRITERIA FOR THE TOTAL EFFECT OF THE THERAPY**

To assess the total effect of the therapy, the following criteria were fixed to each of the status.

#### **Complete Remission**

100% relief in signs and symptoms. No attack of *Shwasa vega* during and after the treatment

upto two months of follow up.

### **Markedly Improved**

More than 75% relief in signs and symptoms, with the frequency and intensity of attack reduced to 75% of the initial one.

### **Moderately Improved**

50% to 75% relief in signs and symptoms, with the frequency and intensity of attack reduced to 50% of the initial one.

### **Mildly Improved**

25% to 50% relief in signs and symptoms, with the frequency and intensity of attack reduced to 25% of the initial one.

### **Unchanged**

Less than 25% relief in signs and symptoms, with no change in the frequency and intensity of attack.

## **STATISTICAL ANALYSIS**

The information collected on the basis of observation made during the treatment are analyzed on a statistical criteria in terms of mean score (X), standard deviation (S.D.), Standard error (S.E.), Paired t test, Unpaired t test was carried at the level of 0.05, 0.01, 0.001, of p level thus the obtained results were interpreted as:

P > 0.05 Unimprovement

P < 0.05 Improvement

P < 0.01 Significant Improvement P < 0.001 Highly significant

To, more specifically quantify the percentage of improvement in each patient, this was also calculated using the formula  $(BT - AT) * 100 / BT$ .

## **OBSERVATION**

The observation of patients will be carried out before during and after completion of treatment. Little addition or exclusion may be done as per necessity of the study.

## **CONCLUSION**

Conclusion will be made on the basis of the observation which is done on subjective and objective parameters. The result will be analyzed statistically and discussed.

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