

# Evaluation of Efficacy of Jimutaka and Madanaphalavamana in Tamaka Shwasa- A Comparative Study

Mayuri Garge<sup>1</sup>, Dr. Shweta Parwe<sup>2</sup>

PG Scholar, Associate Professor  
Department of Panchakarma  
MGACH &RC, Salod (H), Wardha

**Abstract:** Vamana Karma is an important treatment modality in Tamaka Shwasa. Tamaka Shwasa is a condition in which the Vata attains pratilomagati due to Margavarodha by Kapha dosha. This study was carried out in the department of panchakarma which was included 30 subjects. To compare the efficacy of Jimutaka and Madanaphala vaman in Tamaka shwasa. Hence Vamana Karma is said to be beneficial in treating Tamaka shwasa by eliminating the obstructing Kapha dosha. Shodhana procedures are the best measures to eliminate the impurities in the body. So Vamana Karma administered properly offers good relief in signs and symptoms of Tamaka Shwasa .

**Keywords:** Tamaka Shwasa, pratilomagati , Kapha dosha, Vamana

## Introduction –

The traditional Indian system of medicine, ‘Ayurveda’ characterizes by the principle of treating not just the symptoms superficially but the actual root cause of the disease which is situated deep inside the body and this task is best accomplished by ‘Panchakarma’, which is the *Shodhana chikitsa* in Ayurveda [1]. The following presented study comprises of one of the best and important procedures of Panchakarma, ‘Vamana Karma’ which is the expulsion of the deep rooted vitiated *doshas* from the mouth [2]. *Vamana karma* is specially indicated in *Kaphaja* disorders [3].

One such disease involving *Kapha* is *Tamaka Shwasa* (Bronchial Asthma). The act of respiration is the physiological function of *Prana Vayu*. When this *Prana Vayu* is obstructed by *Kapha*, it gets *pratiloma gati* and moves upwards, impairing the act of respiration which results into the disease called as *Tamaka Shwasa* (Bronchial Asthma) [4]. Asthma is a syndrome characterized by airflow obstruction that varies markedly, both spontaneously and with treatment. Asthmatics harbor a special type of inflammation in the airways that makes them more responsive than non-asthmatics to a wide range of triggers, leading to excessive narrowing with consequent reduced airflow and symptomatic wheezing and dyspnea [5]. For the treatment of this dreaded disease, different *Vamanaushadhis* are described in various classical *Ayurvedic* texts. Out of them *Jimutaka* (*Luffa echinata*) is of *Katu*, *Tikta Rasa*, *Katu Vipaka* and *Ushna Veerya*. It is *Tridosha shamaka* and specially indicated in *Kaphaja* disorders [6]. According to the GINA (Global Initiative for Asthma) report, It is estimated that there may be an additional 100 million people with Asthma by 2025. It is estimated that Asthma accounts for about 1 in every 250 deaths worldwide. WHO estimates that 235 million people currently suffer from Asthma. India has an estimated 15- 20 million Asthmatics [7].

## Need of Study –

*Tamaka Shwasa* is a disease which hampers the basic activity denoting life i.e. ‘Breathing’. So a person suffering from *Tamaka Shwasa* always lead a compromised life. *Tamaka Shwasa* is stated as a ‘*Yapya*’ disease which means it can never be completely cured but can only be controlled [8]. Hence, it’s the need of an hour to do more researches in the management of this dreaded disease. So present study was taken, with *Madanaphala*, a well known drug used for *Vamana* and *Jimutaka* which is *Kaphahara*, comparing their effects on *Tamaka Shwasa* by through *Vamana*.

## AIM-

Evaluation of Efficacy of *Jimutaka* and *Madanaphala Vamana* in *Tamaka Shwasa* (Bronchial Asthma) - A Comparative Study

## OBJECTIVES-

- 1) To evaluate the efficacy of *Jimutaka Vamana* in *Tamaka Shwasa*
- 2) To evaluate the efficacy of *Madanaphala Vamana* in *Tamaka Shwasa*
- 3) To compare the effects of *Jimutaka* and *Madanaphala Vamana* in *Tamaka Shwasa*

## MATERIALS AND METHODS

**Ethical Committee Approval-** After approval from institutional ethical committee (with reference number DMIMS (DU)/IEC/2015-16/1324) study was carried out.

### 1) Selection of Patients-

Patients suffering from *Tamaka Shwasa* will be selected from Panchakarma OPD and IPD of Mahatma Gandhi Ayurveda College Hospital and Research Centre, Salod (H), Wardha by preset inclusion and exclusion criteria.

**Study design-**

A randomized standard comparative clinical trial.

**4) Sample size-**

Total 30 patients with minimum of 15 patients in each group irrespective of gender, caste, religion, marital status and economic status were taken in the study.

**5) Inclusion criteria-**

- Patients having stated *lakshanas* of *Tamaka Shwasa* in *Ayurvedic* classics, irrespective of their gender, religion, economical status and marital status are included in the study.
- Intermittent and Mild Persistent Asthmatics
- Intermittent- Symptom frequency is < once a week
- Mild Persistent- Symptom frequency > once per week but < once per day
- Patients between the age group of 20 to 60 years are included in the study.
- Patients who are fit for *Vamana* according to *Ayurvedic* classics are included in the study.
- Patients only on inhalation therapy were included in the study

**6) Exclusion criteria-**

- Patients on steroids
- Patients having any other Pulmonary disorders
- Patients having any Cardiac disorders
- Patients with Hernia
- Patients who have undergone any kind of operations in past 6 months
- Pregnant and lactating women

**7) Criteria of diagnosis-**

The signs and symptoms of *Tamaka Shwasa* mentioned in *Ayurvedic* texts and objective investigations mentioned in contemporary texts are the criteria for the diagnosis.

**Posology-**

a) For *Deepana-Pachana* : *Shunthi churna* 1gm BD Before meal for 3 days

b) For *Snehapana* : **1st day-** 50 ml *Goghrita* + 10 gms *Saindhava*

**2nd day-** 100 ml *Goghrita* + 10 gms *Saindhava*

**3rd day-** 150 ml *Goghrita* + 10 gms *Saindhava*

c) For *Sarvanga Abhyanga* :

**On the previous day of *Vamana*-** 50 ml *Tila taila* followed by *Peti sweda*

**On the day of *Vamana*-** 50 ml *Tila taila* followed by *Peti sweda*

d) For *Vamana* :

*Kaphotkleshakara ahara* like Curd rice, Sweets and Dahi wada were advised on the previous night of *Vamana*.

*Akanthapana*- 2 Ltrs. of Milk

*Vamana yoga* for **Group A** – *Jimutaka churna* 3.5 gms + *Saindhava* 1.75 gms + *Madhu* 15 ml

*Vamana yoga* for **Group B**- *Madanaphala pippali* 3.5 gms + *Saindhava* 1.75 gms + *Madhu* 15 ml

[The quantity of *Madanaphala pippali* as stated in *Ayurvedic* texts is *Antarnakhamushthi paramana*. To calculate this *pramana*, a study was undertaken in which 50 random people were considered and their Gender, Age, Height, Weight, BMI and *Antarnakhamushthi pramana* of each of them were noted. Average was calculated and it was found out to be 3.5 gms ]

*Vamanopaga dravya*: 4.5 Ltrs. *Yashtimadhu Phanta*

1050 Ltrs. *Saindhava jala*

e) *Dhumapana*-

*Dhumapana* was given by *Dhoomavarti* made by using *Haridra*, *Vacha* and *Shunthi churna*. Patient was told to inhale the fumes through each nostril for 3 times and exhale through mouth every time. Then inhale and exhale through mouth for 3 times.

f) *Samsarjana Krama*-

*Samsarjana karma* was advised for 3 days to each patient.

Table no.16	Time	<i>Annakala</i>
<b>Samsarjana krama Day</b>		
1	Morning- Evening-	- <i>Peya</i>
2	Morning- Evening-	<i>Vilepi</i> <i>Kritakrita Yusha</i>
3	Morning- Evening-	<i>Kritakrita</i> <i>Mamsarasa</i> <i>Sadharana</i> <i>Bhojana</i>

9) **Study duration-** 10 days (excluding follow up)

10) **Follow up-** After 1 month

11) **Assessment of results-**

Results are assessed from the subjective and objective parameters of the baseline data of before treatment, after treatment and on follow up as discussed in results section.

12) **Subjective parameters-**

The subjective parameters considered here are-

**Subjective parameters-**

**Shwasa kashtata (Breathlessness or Dyspnoea)**

The MRC breathlessness scale was adopted for *Shwasa kashtata*

- 1- Not troubled by breathlessness except on strenuous exercise
- 2- Short of breaths when hurrying on a level or walking up a slight hill
- 3- Walks slower than most people on the level, stops after a mile or so, or stops after 15 min walking at own pace
- 4- Too breathlessness to leave the house, or breathlessness while undressing

**Kasa (Cough)-**

0- No cough

1- Occasional cough

2- 1-2 times per day

3- 2-5 times per day

4- Throughout day

5- Throughout day and night

**Peenasa-**

0- Half handkerchief required

1- 1 full handkerchief required

2- 2 handkerchief required

3- > 2 handkerchief required

**Kanthodhwamsa**

0- No *Kanthodhwamsa*

1- Often *Kanthodhwamsa*

2- Very often *Kanthodhwamsa*

3- Always *Kanthodhwamsa*

**Ghurghurakatwam**

0- No *Ghurghurakatwam*

1- *Ghurghurakatwam* only during attack

2- Very often *Ghurghurakatwam* sound

3- *Ghurghurakatwam* throughout the day

3) **Investigations and Objective parameters-**

A) Routine Investigations- - CBC

B) Specific Investigations (Objective parameters) - Spirometry,

These were done before treatment, after treatment and on follow up.

C) Investigation for exclusion of any other pulmonary disorders like TB- X-Ray Chest PA view

13) **Objective parameters-**

The objective parameters considered were-

Spirometry FEV1% (FEV1/FVC ratio)

**Result and Observations-**

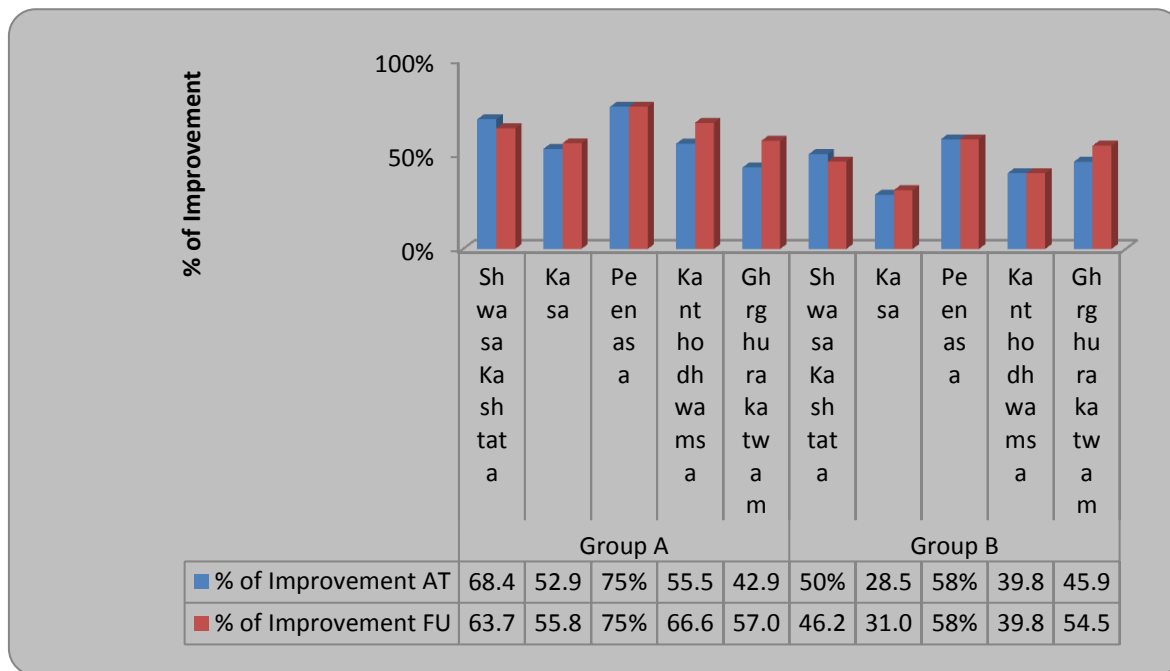
**Table no. 01 -Comparison of Percentage improvement in Subjective Parameters After treatment and on Follow up in Group A and B**

Group	Subjective Parameters	Mean BT	Mean AT	Mean FU	% Imp (AT)	% Imp (FU)
A	<i>Shwasa Kashtata</i>	1.46+0.51	0.46+0.63	0.53+0.83	68.49%	63.7%
	<i>Kasa</i>	2.40+0.73	1.13+0.63	1.06+0.79	52.92%	55.83%
	<i>Peenasa</i>	1.00+0.81	0.25+0.50	0.25+0.50	75%	75%
	<i>Kanthodhwamsa</i>	2.25+0.50	1.00+0.00	0.75+0.50	55.56%	66.67%
	<i>Ghrghurakatwam</i>	2.33+0.57	1.33+0.57	1.00+0.00	42.92%	57.08%
B	<i>Shwasa Kashtata</i>	1.86+0.63	0.93+0.45	1.00+0.65	50%	46.24%
	<i>Kasa</i>	2.80+0.56	2.00+0.75	1.93+0.70	28.57%	31.07%
	<i>Peenasa</i>	1.00+0.57	0.42+0.53	0.42+0.53	58%	58%
	<i>Kanthodhwamsa</i>	1.88+0.64	1.13+0.35	1.13+0.35	39.89%	39.89%
	<i>Ghrghurakatwam</i>	2.20+0.44	1.20+0.44	1.00+0.00	45.95%	54.55%

In Group A, percentage improvement after treatment in *Shwasa kashtata* was 68.49% and on Follow up was 63.7%. In *Kasa*, percentage improvement after treatment was 52.92% and on Follow up was 55.83%. In *Peenasa*, percentage improvement after treatment and on Follow up was 75%. In *Kanthodhwamsa*, percentage improvement after treatment was 55.56% and on Follow up was 66.67%. Similarly in *Ghurghurakatwam*, percentage treatment after treatment was 42.92% and on Follow up was 42.92% and on Follow up was 57.08%

In Group B, percentage improvement after treatment in *Shwasa kashtata* was 50% and on Follow up was 46.24%. In *Kasa*, percentage improvement after treatment 28.57 % and on Follow up was 31.07%. In *Peenasa*, percentage improvement after treatment and on Follow up was 58%. In *Kanthodhwamsa*, percentage improvement after treatment and on Follow up was 39.89%. Similarly in *Ghurghurakatwam*, percentage treatment after treatment was 45.95% and on Follow up was % and on Follow up was 54.5%.

**Graph no. 59-Comparison of Percentage improvement in Subjective Parameters After treatment and on Follow up in Group A and B**



**Table no. 79- Comparison of Percentage improvement in Objective Parameters After treatment and on Follow up in Group A and B**

Grp	Parameter	Mean BT	Mean AT	Mean FU	% Imp (AT)	% Imp (FU)
A	FEV <sub>1</sub> /FVC	63.46+4.37	68.93+4.60	70.46+4.30	8.62%	11.03%
B	FEV <sub>1</sub> /FVC	65.06+5.32	67.20+5.08	67.60+5.16	3.29	3.9%

In Group A, percentage improvement in FEV1/FVC ratio after treatment is 8.62% and on Follow up is 11.03%.

In Group B, percentage improvement in FEV1/FVC ratio after treatment is 3.29% and on Follow up is 3.9%.

**Discussion –**

All the Subjective Parameters were found to be highly significant.

**1) Shwasa Kashtata-**

In Group A, % Decrease in *Shwasa kashtata* After Treatment is 68.49% and on Follow Up is 63.70%. In Group B, % Decrease in *Shwasa Kashtata* After Treatment is 50 % and on Follow Up is 46.24%.

**2) Kasa-** In Group A, % Decrease in *Kasa* After Treatment is 52.92% and on Follow Up is 55.83%. In Group B, % Decrease in *Kasa* After Treatment is 28.52% and on Follow Up is 31.07%.

**3) Peenasa-**

In Group A, % Decrease in *Peenasa* After Treatment is 75% and on Follow Up is 55%.

In Group B, % Decrease in *Peenasa* After Treatment is 58% and on Follow Up is 58%.

**4) Kanthodhwamsa-**

In Group A, % Decrease in *Kanthodhwamsa* After Treatment is 55.55% and on Follow Up is 66.67%. In Group B, % Decrease in *Kanthodhwamsa* After Treatment is 39.89% and on Follow Up is 39.89%.

#### 5) *Ghurghurakatwam*-

In Group A, % Decrease in *Ghurghurakatwam* After Treatment is 42.92% and on Follow Up is 57.08%. In Group B, % Decrease in *Ghurghurakatwam* After Treatment is 45.45% and on Follow Up is 54.55%.

#### 6) FEV1/FVC Ratio-

In Group A, % Increase in FEV1/FVC Ratio after Treatment is 8.62% and on Follow Up is 11.03%. In Group B, % Increase in FEV1/FVC Ratio after Treatment is 3.31% and on Follow Up is 3.92%.

#### Conclusion –

It is evident from the Observations and Results that the result of *Jimutaka Yoga* might not be statistically significant but is surely more significant than the result given by the *Madanaphala Yoga*. So, we can conclude that *Jimutaka* has emerged as a better option for *Vamana* in *Tamaka Shwasa* compared to *Madanaphala*.

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