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Clinical Evaluation of *Shatyadi Churna* and *Virechana Karma* in the Management of *Tamaka Shwasa* w.s.r to Bronchial Asthma

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ABSTRACT:

Background-*Tamaka Shawasa* is said to be “*Yapya vyadhi*” i.e not only curable but managed by medicine, but can be cured if it is of acute origin as said by Ayurvedya Charak.

Materials and methods- It was done on 30 Patients of *Tamaka Shwasha*. They were treated on the principle of *Ayurveda* & evaluation of *Virechanakarma* & *Shatyadi churna*.

Results-Overall effect is that in 33.33% i.e 1 out of 30 patients cases complete remission is seen, 26.66% cases shown marked improvement, 53.33% cases shown moderate improvement, 16.66% cases reported mild improvement & 0.00% cases were having no change in their symptoms.

Conclusion- *Ayurveda* treatment not only cure the root cause of disease but prevent the disease in future recurrence by boosting the immunity against the infection and treating allergic reactions. This article proves clinical evaluation of *Shatyadi Churana* And *Virechana Karma* in management of *Tamaka Shwasa* w.s.r “Bronchial Asthma”.

Keywords: *Tamaka Shawasa, Virechana Karma, Asthma*

INTRODUCTION

The human quest for health and longevity paved the way for the birth of Science of life, which is the science of medicines as well; to keep the health of the healthy and restore the health forth unhealthy¹. The pioneer of all Medical systems, *Ayurveda* is based on its profound theories on the structural and functional aspects of wellness and illness. Way back in the prehistoric period, whatever knowledge the seers gained through their senses and intellect, churned in the pot of Rationality, evolved as logical inferences that forms the basic concepts of health and diseases in *Ayurveda*. Thus the *Ayurvedic* literature is a vast treasury of immense knowledge, which has been

developed through centuries of observational research, condensed into codes that needed to be intellectually analyzed and decoded for further development of the science. Thus, like in any other Traditional system of Medicine, the research in *Ayurveda* has to begin with a search of what our ancient seers had conceptualized about various diseases, and research on how those concepts can be rationalized in the light of latest advancement of medical knowledge and diagnostic techniques. Research should be a process that converts data into information, information into knowledge and knowledge into wisdom. This is like transforming milk into ghee. It should be balanced and comprehensive. There should be equal



emphasis on literary, field, experimental and clinical researches. *Vedas* being the coffers of the entire ancient Indian Wisdom provide the first ever documented data on diseases and medicines. A review of these scattered references will throw light into the development of the concepts of diseases as explained in *Ayurveda* Classics.

With the explosion of the knowledge in the 21st century a new concept of multi factorial causation of a disease has arisen due to changing pattern of life styles, living standards, demographic factors, urbanization, over growth of industrialization & auto mobilization.

All of the above increase causative factors of *Pranvaha Srotasa* like dust, allergens, pollutant toxic gases, vehicle smoke, cigarette smoking and stress. This all the causative factor responsible for the disease of *Pranvaha Srotasa* like *Pratishaya, Tamak Shwasha, Kasa & Hikka* in remarkable number now a days.

Acharya Charaka says “there are many disease that are life threatening but *Tamaka shwasa & Hikka* are the quickest of them all”².

Again, *Acharya Charaka* states that “there will always be *Hikka & Shwasa* in death bed irrespective of the cause i.e disease³. Such is the severity of the *Shwasa roga* emphasized in *Ayurveda* text books.

There are three main causes of Death till date:^{4,5}

1. **Respiratory failure** (Asphyxia)
2. **Brain death** (Coma)
3. **Cardiac failure** (Syncope/Congestion)

In *Ayurveda* respiration is stated as “*Shwasocchvasa-Kriya*”. Any disturbance or pathology in this process leads to *Shwasa roga*.

Tamaka Shwasa is one of the important types of *shwasa roga* and can be compared to ‘Bronchial Asthma’ due to its similarities in its causes, pathophysiology, clinical signs & symptoms such as *Shwaskricchata, Peenasa, Kasa, Kapha Nishthivanam, Ghurghurukam, Urashoola, Asinolabhate soukhyam, Shwasa vega* etc.

These premonitory sign and symptoms of *Tamaka Shwasa* can be classified into two ways:

1. Before onset of *Tamaka Shwasa*
2. Before the attack of acute exacerbation of *Tamaka Shwasa*

Anaha, Bhakta Dvesha, Vadanasya Vairasyata, Arati, Adhmana, and Shankha Nistoda usually occur before onset of *Tamaka Shwasa* and *Parshvashula, Pidanam Hridayasya, Pranasya Vilomata, and Shula* may occur before the attack of acute exacerbation of *Tamaka Shwasa*.

AIM & OBJECTIVES OF THE STUDY:

1. To evaluate the efficacy of *Shatyadi churna* and *virechana karma* in the management of *Tamaka Shwasa*
2. To review *Tamaka Shwasa* as per clinical reference
3. To review *aetiopathogenesis* of Bronchial Asthma as per modern literature
4. To provide better life to the patient of Asthma
5. To provide safe treatment without side effects and cheap treatment in the management of Bronchial Asthma

MATERIALS AND METHOD :

The material utilized for the study will be of two types:

- 1) **Literary:** It was compiled from the text-books of *Ayurvedic* and modern medical classics & latest research papers published in its context.
- 2) **Clinical:** It was done on 30 Patients of *Tamaka Shwasha*. They were treated on the principle of *Ayurveda* & evaluation of *Virechanakarma & Shatyadichurna* in terms of pre & post relief in signs & symptoms clinically, pathologically & radiological with follow up.

Source of data:

This study is carried on 30 Patients in a single group study of *Tamaka Shwasha*. The patient who fulfilled the clinical diagnostic criteria of *Tamaka Shwasa* (Bronchial Asthma) were randomly selected, irrespective of their age, sex, religion, occupation etc. from the O.P.D & I.P.D of JAMMU INSTITUTE OF AYURVEDA AND RESEARCH HOSPITAL. Also special camps were conducted for the study. Study was carried out on the patients fulfilling the criteria of *Tamaka Shwasa*.

Inclusion Criteria :

1. Patients presenting with classical features of *Tamaka Shwasa*
2. Patients aged between 18 – 60 years, irrespective of gender
3. Patients with history of *Tamaka Shwasa* less than 5 years
4. PEFR > 80 Lt/min

Exclusion Criteria :

1. Patient with age less than 18 years and more than 60 years
2. PEFR < 80 Lt/min are excluded
3. Asthma due to other Systemic disorders

4. Asthma due to other Respiratory disorders
5. Asthma in pregnancy
6. Occupational asthma
7. Emergency condition of the patient, who requires oxygen inhalation Anatomical defects in airway

Diagnostic Criteria :⁶

1. An extensive proforma is compiled on the basis of classical signs and symptoms of the *Tamak Shwasha* (w.s.r. to Bronchial asthma) as per the *Ayurveda* & modern classics.
2. A complete history taking with respiratory system examination is done and the data is collected. A complete history taking of *dasvidha pariksha*, *nidana panchaka* etc. of each patient is compiled and filled in proforma. Spirometric evaluation was done by mini peak flow meter assisted handy and also by laboratory findings.

Investigation :

1. Blood test – Hb% , TLC , DLC , ESR
2. Urine – Routine & Microscopic
3. PEFR
4. X – Ray Chest , P/A View
5. AEC (Absolute Eosinophil Count)
6. Spirometry (if possible)
7. Sputum AFB (if necessary)

Pulmonary function test: by Handy mini peak flow meter.

The PEFR reading is taken in all the Patients of *Tamaka Shwasha*. This test is thoroughly explained to every patient. Practical demonstration is done and correct method is told to Patients. In each case three to five readings were taken till, they performed the test satisfactorily. The best value is taken for the assessment before and after treatment. Less than 200lit/min of PEFR (Peak Expiratory Flow Rate) is one of the diagnostic sign of obstructive type of lung disease like asthma. Normally it is 70to 80 % than VC (Vital Capacity) of lungs.

Posology:

Yoga : *Shatyadi Churna*

Dosage : 5 gm , after meals in two divided doses

Duration: 60 days

Follow up: 20 days

Anupana : *jala* (luke warm)

Study Group :

Total number of patients taken for the study will be 30 excluding drop outs First *sadyovirechana* is given with *Erandataila* to the patients. After *samyakasadyovirechana*, *Shatyadichurna* is given along with life style modification.

Clinical Screening:

This is done before starting the treatment. The patients who fulfill the criteria are taken as a single group. His history, smoking, occupation, residence, family history of the disease, effect of environment, *mithya aahar-vihara* and the cardinal signs and symptoms of the disease which are relieved or exacerbated during the treatment are recorded. The vitals of the Patients like B.P., Pulse, respiration rate and PEFR are noted. *Prakruti* assessment, predominance of *doshas*, *Agni*, *Kostha*, *Abhyavaran*, *Jarana*, *Vyayama Shakti* assessment is done. The involvement of *Shrotas* & complete examination by inspection, palpation, percussion and auscultation is done.(Table1-table 8)

Diet:

Patients are advised to eat *moong diet*, milk and rice diet which is *laghu* in quality and *ushnodhaka*. When there is atmospheric change which provokes the attacks of asthma at that time *ushnodhaka* is given every half hourly internally to stabilize the patient in acute condition to keep in trust

Criteria For Assessment^{7,8} (Table 9)

1. By observing clinical improvement in signs & Symptoms of the disease as per Proforma.
2. To evaluate the effect of *Sadyo virechana* & *Shatyadi churna*
3. By evaluating the physical examination, pulmonary function test in the form of spirometry or by handy mini peak flow meter measuring PEFR value and laboratory investigation before and after the treatment.
4. The result thus obtained would be tabulated statistically, analyzed by scientific critics.

For the signs and symptoms of the disease of the *Tamaka Shwasa* grading is done depending upon the severity and before and after treatment assessment is done the following signs and symptoms are graded.

5. All the signs & symptoms were given scores depending upon their severity before and after treatment.
- 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, 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: Unimproved

P< 0.05: Improved

P< 0.01: Significantly improved

P< 0.001: Highly significantly improved

Presentation Of Data:

The data collected & compiled on the basis of clinical trial were done and presented as follows:

1. The first class presents the general observation regarding age, sex, religion etc.
2. The second class incorporates the results of therapy evaluated on the basis of improvement in signs and symptoms along with effect on various physical & Bio chemical parameters.

DISCUSSION

Here, the study is done on *Tamaka Shwasha*; it is a disease of multi factorial causation where effect of nature, diet i.e., *Aahar* and *Vihara* plays an important role.⁹

In the management of this disease all the factors are taken in consideration. It is a disease of *Pranavaha srotas* with the vitiation of *Kapha* and *Vata dosha* and origin in *Pitta sthana*.

This study is carried out on 30 patient in a single group study. First *Erand taila* is given for *virechana karma* (*sadyo*), purpose is to clear the *srota* for the *shamana* therapy i.e *Shatyadi churna*. In this study combined effect of *virechanakarma* and *shamana* therapy is observed and discussed.¹⁰

The ingredients of *Shatyadi yoga* have *Katu*, *Tiktarasa*, *Laghu* and *Tikshna Guna*, *Ushna Virya*, *Kaphavatahara*, *Shwasahara* and *Kasahara* effects.¹¹

The pharmacodynamics properties of these drugs are quite effective in breaking up pathogenesis of Bronchial Asthma. It is concluded that the disease Bronchial Asthma can be correlated with *Tamak Shwasa*. Therefore *Shatyadi Yoga* with *Katu* and *Tikta Rasa*, *Ushna* and *Tikshana Guna*, *Ushna Virya* along with *Vatakaphahara* effect has enough potency to disintegrate the etiopathogenesis of Bronchial Asthma.^{12,13}

Effects Of Therapies

1. Effect of therapy on *Tivra Shwasa*: There was improvement in *Tivra Shwasa* which was reported to be 54.69%. The relief is statistically highly significant (p<.001).

Tamaka shwasa is said to be *pitta samud bhava vyadhi* and *Vata-Kaphapradhan*. *Virechana karma* removes *Pitta* & *Kapha* which in turn helps in *Vata anulomana*, by this effect patient feels relief in their symptom. Whereas *Shatyadi churna* contains drugs mainly having *ushna virya* , 9 out of 14 & *katu vipaka*, 10 out of 14. *Ushna virya* alleviates both *Kapha* & *vata*, whereas *katu vipaka* alleviates *Kapha dosha*. In addition 10 out of 14 drugs having *Vatakaphahara* properties that helps in alleviating above symptom.

2. Effect on *Kasa*: The symptomatic relief in *kasa* is 56.77% with treatment. The improvement is statistically significant (p<.001).

This is due to *Kasa- Shwasahara* properties of the drugs i.e 10 drugs out of 14 having this properties. 11, 9 & 5 out of 14 drugs having *Katu*, *Tikta*, *Kashaya* properties respectively, in addition 10 out of 14 drugs having *Ushna virya* & *katu Viapaka* each, due to these properties *Srota Rodha* of *Pranavaha Srotas* is cleared i.e alleviates *Kapha*.

3. Effect on *Pinasa*: 50% relief was exhibited by the patients in symptom. The result is statistically highly significant (p<.001).

The main predominant *doshas* in *pinasa* is *Vata* & *Kapha*. These are alleviated by *vata-kapha Shamaka* properties of drugs (10 out of 14 drugs).

4. Effect on *Ghurghurakam*: There was 28.56% symptomatic relief reported in present study. The observed results in this group is highly significant (p<.001).

Ghurghurakam is due to *Avarodha* in *Pranavaha srotas* that in turn is due to vitiated *Kapha dosha* & *pratiloma Vata dosha* which is then relieved by *Vata-kapha shamana* & *Vatanulomana* properties of drugs comprising *Shatyadi Churna*.

5. Effect on *Pramoha*: 42.91% relief was observed in *pramoha*. This was statistically significant (p<.01).

This is due to dominance of *Kapha dosha* that the patient feels dizziness & due to *Prana vaha srota avarodh* there is lack of oxygenation of blood and in turn lack of oxygen to

brain due to this patient feels like fainting & out of breath. This is relieved by *Kapha shamana* properties of the drugs like *Ushna virya*, *KatuVipaka*, *Katu-Tikta-Kashaya Rasa* & *Sroto Shodhana* properties.

6. Effect on *Kaphastheevanam*: There was 43.47% relief in symptom. This was statistically highly significant ($P < .001$).

Lekhna property helps in removing tenacious & sticky sputum from the respiratory tract. Asthmatic patient suffers from excessive production of sputum in the respiratory tract due to which the lumen gets narrower and causes breathlessness. So, after expectoration patients feels some relief.

7. Effect on *Krichat bhashitam*: In this study, 27.32% cases felt symptomatic relief that was statistically significant ($p < .05$).

Patient is unable to speak without effort due to *Sroto avarodha* in *Prana vahasrotas* due to *dushita kapha*. This is relieved by *Kapha nisaraka guna* of *ShatyadiChurna* due to *lekhana guna*, *Kaphahara* property, *Katu-Tiktarasa* for *SrotoShodhana*.

8.Effect on *Lalaten Svidyata*: 63.66% cases reported symptomatic relief in the present study which is statistically significant ($p < .01$).

Patient suffering from *Tamaka Shwasa* (Bronchial Asthma) feels suffocated & out of breath most of the time so, due to stress And Anxiety (26.66%) there is sweating on forehead. Sometimes *Pitta* is Associated, it is also a *pittasamudbhava vyadhi*. So due to *Pitta* there is *Svidyata* on *Lalat*. This is relieved by drugs having *Shita Virya* and *Pitta shamana* properties like *Madhurarasa*, *Madhura vipaka*

9.Effect on *Shyane shwasa pidita*: In present study, 18.76% cases reported symptomatic relief which is statistically significant ($p < .05$).

In *Shyane Shwasa Pidita* patients feels discomfort while lying i.e in lying posture. This is due to the fact that when the disease progresses heart is also involved, because there are secretions in alveoli & lungs, due to this congestion there is back pressure on heart known as *Cor-pulmonale*. The *Mula* of *Pranavahasrotasa* is *Hridya*(Heart) & *Mahasrotasa*, So when *Hridya* is involved & the disease become 1 year old is said to be *Yapya* & can lead to Right Ventricular Failure. Also according to modern science while in lying posture Diaphragm is placed slightly upward due to which total lung capacity is decreased & patient prone to *Tamaka Shwasa* or suffering from the disease feels discomfort.

Drugs in ***Shatyadi Churna*** are having *Hridya*, *Sanjanasthapaka Karma* & also having *Rasayana Karma*. Due to these properties *Rasa Dhatu* is improved which is concerned with *Hridya*. Also due to *HridyaKarma*, it gives strength to Heart muscles & improved its tone & decrease further complications.

10. Effect on Haematocrit Values:

- i. **Effect on Hb%:** The effect of therapy on Hb% was reported to be 13.15% which is statistically highly significant at $p < .001$. This can be due to the fact that *Shatyadi Churna* improves metabolism of the body by acting on *Agni*. Due to this *Samyaka Rasa Dhatu* is made & in turn *Samyaka RaktaDhatu* is formed. Also by improving lung function and bronchodilator action there is proper oxygenation of blood through alveoli surface.
- ii. **Effect on TLC:** The effect of therapy on TLC was reported to be 9.43% which is statistically not significant or Unimproved at $p > .05$.
- iii. **Effect on Neutrophils:** The effect of therapy on Neutrophils(relative) was reported to be 4.90% which is statistically not significant or Unimproved at $p > .05$
- iv. **Effect on Eosinophils:** The effect of therapy on Eosinophils(relative) was reported to be 51.95% which is statistically highly significant at $p < .001$. High eosinophil value suggests allergic condition and extrinsic type of asthma. As immune system of the body improve with improved metabolism. Improvement in the immune system with the *Shatyadi Churna* is drawn in above conclusion.
- v. **Effect on ESR:** The effect on ESR(1st hr) with *Shatyadi Churna* was reported to be 74.75% which is statistically highly significant at $p < .01$. Raised ESR suggests infection in any form. It is seen in blood, it may be taken as *Samata* of *Rash Dhatu*. As we have seen due to improvement in *Agni* the *Samata* of *Rash Dhatu* controls, immunity increase that's why improvement in ESR is seen. This shows that *Shatyadi Churnahave* anti infective or anti biotic type of quality also

CONCLUSION

Tamaka Shwasa is a *Vata-Kapha* dominant & also it is *PittasthanaSamudbhavaVyadhi* of *Pranavaha Srotasa*. It is said to be curable when less chronic “*sadhya navothita...*” & said to be *Yapya Vyadhi* when chronic. So it should be treated as early as possible for better results. It closely correlated with Bronchial Asthma in modern science as almost all the signs & symptoms were same as of *TamakaShwasa*. As *Tamaka Shwasa* is a *Vata-Kapha* dominant disease, so *Vata-Kapha Shamaka* treatment

should be given. *Shatyadi Churna* fulfills the above criteria. TLC & Neutrophil count (haematocrit values), didn't showed any significant result. Overall effect is that in 33.33% i.e 1 out of 30 patients cases complete remission is seen, 26.66% cases shown marked improvement, 53.33% cases shown moderate improvement, 16.66% cases reported mild improvement & 0.00% cases were having no change in their symptoms. It can be said that by giving *Sadyo/AvasthikaVirechana* the effects of *Shatyadi Churna* were maximized.

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Table 1 showing grading of *Tivra shwasa* (Dyspnoea)

0	No <i>shwasa vega</i>
1	<i>Shwasa vega</i> after heavy work & relieved by rest
2	<i>Shwasa</i> on slight exertion i.e walking etc
3	<i>Shwasa</i> even at rest

Table 2 showing grading of *Pinasa* (Coryza)

0	No <i>pinasa</i>
1	<i>Pinasa</i> during attack of <i>shwasa</i> & persists for week
2	<i>Pinasa</i> without attack of <i>shwasa</i>
3	<i>Pinasa</i> present, always

Table 3 showing grading of *Ghurghurakam* (Wheezing)

0	No wheeze
1	Wheezing only during attack
2	Wheezing found very often
3	Wheezing throughout the day

Table 4 showing grading of *Ativegat lasate* (Coughing)

0	No <i>kasa</i>
1	<i>Kasa vega</i> (sometime) without any pain
2	<i>Kasa vega</i> with pain, not disturbing sleep
3	<i>Kasa vega</i> due to which patient becomes unconscious

Table 5 showing grading of *Shleshmanam vimokshante* (Expectoration)

0	No expectoration
1	Easy expectoration, after which patient feels relief
2	Difficult expectoration, still patient does not feel any relief

Table 6 showing grading of *Krichat bhashitam* (Difficulty in speaking)

0	No difficulty in speaking
1	Difficulty in speaking during attack
2	Difficulty in speaking continues soon after attack
3	Difficulty in speaking continues for long time

Table 7 showing grading of *Shyana shwasa pidita* (Aggravates in lying position)

0	No <i>shwasa pidita</i> on sleeping
1	Occasional <i>shwasa pidita</i> on sleeping
2	Very often <i>shwasa pidita</i> on sleeping
3	Always <i>shwasa pidita</i> on sleeping

Table 8 showing grading of *Asino labhate saukhyam* (Comfort in sitting position)

0	Relief in lying position
1	Feels better in sitting position
2	Sitting posture gives relief
3	In spontaneous sitting posture patient can't sleep

Table 9 showing grading of CRITERIA FOR OVER ALL EFFECT OF THERAPY:

Complete Remission	0% Relief in the Subjective and Objective Parameters.
Marked Improvement	% Relief in the Subjective and Objective Parameters.
Moderate Improvement	50% Relief in the Subjective and Objective Parameters.
Mild Improvement	5% Relief in the Subjective and Objective Parameters.
Unchanged	0% is considered as unchanged