

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

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

Tamaka Shwasa is one of the important type 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. In Ayurveda *Tamaka shwasa* (Bronchial Asthma) can be effectively treated both by *shamshamana & samshodhana chikitsa*. Our main aim is to develop cost effective, free from adverse effects, easily available & use of minimum number of drugs, so as to increase the elasticity of lung tissue & develop natural immunity of the body. *Ayurvedic* treatment not only cure the root cause of the disease but also prevents the disease to reoccur in future by boosting immunity against infections & treating any allergic reactions.

KEYWORDS: *Tamaka Shwasa*, Bronchial Asthma, *Shatyadi Churna*, *Virechana Karma*.

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 for the unhealthy. 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. In *Ayurveda* respiration is stated as “*Shwasocchvasa-Kriya*”. Any disturbance or pathology in this process leads to *Shwasa roga*. W.H.O recognises asthma as a disease of major public health importance.

❖ Some associations & programmes on Asthma

- International study of Asthma & Allergies in childhood (ISAAC)
- Global initiative for Asthma (GINA)
- Allergic Rhinitis & its impact on Asthma (ARIA)

Between 100-150 million people around the globe suffers from Asthma & this number is rising worldwide. Deaths from this condition have reached 180,000 annually.^[1]

The term ‘*Shwasa*’ denotes ‘life’. According to *Acharya Charaka* the process by which *jeewana vyapara* i.e maintenance of life or *vayu vyapara* i.e respiration, is carried out is know as *Shwasa* & any obstruction in this process is called “*Shwasa Roga*”.^[2]

Generally in *Ayurveda* classics, *Prana Vayu* and *Udana Vayu* are described in the context of respiration.^[3] The *sthana* and *karma* (location and functions) of *Udana vayu* corresponds with respiration in many ways. It was *Acharya Sharngadhara*, who first tried to define the process of *Shwasa kriya* and its physiological aspects.^[4]

It is clear that when "Prana Vayu" is not performing its normal physiological functions (vitiated) and becomes defiles (Viguna) hindered by Kapha and moves in contrary direction i.e. upward, then it results in *Shwasa Roga*.^[5]

The current management of *Tamaka shwasa* (Bronchial Asthma) by modern medicines is not very effective, as there are many adverse effects of medicines used i.e corticosteroids, short-actin β_2 agonist etc.

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 *Virechana karma* & *Shatyadi churna* 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

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

❖ EXCLUSION CRITERIA

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

- Asthma in pregnancy
- Occupational asthma
- Emergency condition of the patient, who requires oxygen inhalation Anatomical defects in airway
- 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

RESULTS

EFFECTS OF THERAPY

TABLE NO. 34: EFFECT OF THERAPY ON TIVRA SHWASA

Mean		Mean diff.	% Relief	S.D ±	S.E ±	't' Value	'p' Value
B.T	A.T						
1.766	0.800	0.966	54.69	0.491	0.089	3.407	<.001

TABLE NO. 35: EFFECT OF THERAPY ON KASA

Mean		Mean diff.	% Relief	S.D ±	S.E ±	't' Value	'p' Value
B.T	A.T						
1.233	0.533	0.700	56.77	0.794	0.144	4.828	<.001

TABLE NO. 36: EFFECT OF THERAPY ON PINASA

Mean		Mean diff.	% Relief	S.D ±	S.E ±	't' Value	'p' Value
B.T	A.T						
1.060	0.530	0.530	50.00	0.574	0.105	5.057	<.001

TABLE NO. 37: EFFECT OF THERAPY ON GHURGHURAKAM

Mean		Mean diff.	% Relief	S.D ±	S.E ±	't' Value	'p' Value
B.T	A.T						
1.166	0.833	0.333	28.56	0.479	0.087	3.807	<.001

TABLE NO. 39: EFFECT OF THERAPY ON KAPHASTHEEVANAM

Mean		Mean diff.	% Relief	S.D ±	S.E ±	't' Value	'p' Value
B.T	A.T						
0.766	0.433	0.333	43.47	0.491	0.089	4.082	<.001

TABLE NO. 42: EFFECT OF THERAPY ON SHYANE SHWASA PIDITA

Mean		Mean diff.	% Relief	S.D ±	S.E ±	't' Value	'p' Value
B.T	A.T						
0.533	0.433	0.100	18.76	0.305	0.055	1.795	<.05

TABLE NO. 44: EFFECT OF THERAPY ON ASINO LABHATE SAUKHYAMA

Mean		Mean diff.	% Relief	S.D ±	S.E ±	't' Value	'p' Value
B.T	A.T						
0.900	0.533	0.367	40.77	0.556	0.101	3.605	<.001

TABLE NO. 46: EFFECT OF THERAPY ON SHITAKALE VRIDDHI

Mean		Mean diff.	% Relief	S.D ±	S.E ±	't' Value	'p' Value
B.T	A.T						
1.400	0.300	1.100	78.57	0.994	0.181	6.061	<.001

TABLE NO. 47: EFFECT OF THERAPY ON PEAK EXPIRATORY FLOW RATE (PEFR)

Mean		Mean diff.	% Relief	S.D ±	S.E ±	't' Value	'p' Value
B.T	A.T						
333.433	422.566	-89.133	26.73	45.491	8.305	10.731	<.001

EFFECTS OF THERAPIES

32. 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 ($p < .001$).

Tamka shwasa is said to be *pitta samudbhava vyadhi* and *Vata-Kapha pradhan*. *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.

33. 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 *Sroto Rodha* of *Pranavaha Srotas* is cleared i.e alleviates *Kapha*.

34. 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).

35. 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*.

37. Effect on Kaphastheevananam: 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.

40. 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 *Pranavaha srotasa* is *Hridaya* (Heart) & *Mahasrotasa*, So when *Hridaya* 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 *Hridaya*, *Sanjanasthapaka Karma* & also having *Rasayana Karma*. Due to these properties *Rasa Dhatu* is improved which is concerned with

Hridya. Also due to *Hridya Karma*, it gives strength to Heart muscles & improved its tone & decrease further complications.

41. Effect on Asino Labhate Saukhyam: Statistically there was 40.77% relief in symptoms which is highly significant ($p < .001$).

Due to *Pitta Sthana Dusti*, there is *Aam Rasotpatti* & this causes excess secretion of *Malbhut Dusta Kapha* of *Rasa Dhatu* in *Pranava Srotas*. When *Vayu Dosha* gets obstructed by above *Dusta Kapha*, on lying the *Vayu* get entrapped and unable to escape and secondly there is decreased space for the movement of *Prana Vayu* and the symptoms were produced.

When patient is in sitting position the diaphragm is placed slightly down due to gravity so the lung space is increased & patient feels relief.

Drugs in *Shatyadi Churna* having *Dipana-Pachana Karma* which is helpful in *Pachana* of *Dhushta Kapha* i.e *Aam Rasa*. Also *lekhana karma* removes the *malibhuta kapha* from *pranava srotasa*. *Ushna virya* & *Katu vipaka* both helps in alleviation of *Kapha Dosha* & *Vata Anulomana* and thus reliefs the symptom.

42. Effect on Shitakale vridhhi: There was 78.57% relief in the symptom as observed on patients. The relief is statistically highly significant ($p < .001$).

In *Shitakala* or *Shita Ritu* i.e *Hemanta-Shishira*, there is predominance of *Shita guna* which is *tulya* to *kapha* & *Vata dosha* i.e both having *Shita* Property. Due to *tulya kala* it vitiated *Kapha-Vata Dosha* which in turn precipitates or trigger episode of *Tamaka Shwasa*. There is also *Sanchaya* of *Kapha dosha* in *Shishira Ritu* which causes Congestion in *Pranava Srotasa* (Respiratory tract).

Modern science says that in cold weather air is very cool & dry, this in turn when inhaled does not get properly warmed up to the body temperature and thus causes respiratory muscle to spasm by vagus nerve stimulation.

Most of the drugs in *Shatyadi Churna* are having *Ushna Guna*, *Ushna Virya*, *Katu Vipaka* & *Vata-Kapha shamaka* Property. So, due to these above said properties *Shatyadi Churna* helps in relieving the symptoms caused by *Shita Kala* or *Shita Guna*.

43. Effect on PEFr: In present study, there was 26.73% relief in symptom which is statistically highly significant ($p < .001$).

The mini peak flow meter is used to measure PEFr (Peak Expiratory Flow Rate). This mini peak flow meter is used in Asthma for confirming the diagnosis, disease control, control of treatment & its effects, monitor progress of disease as a bed side monitor in all Asthmatic patients. It is also helpful in assessing patient's objective parameters. PEFr is a cheap, reliable, & easily available method for assessing lung functions.

This can be due to the fact that 26.66% of cases were addicted to smoke (*Dhuma*) & 40% cases reported *Raja/Dhuma* as *Anupshaya*. WHO, air pollution reports says that smoking causes impairment in PEFr. Also patients working in cotton mills etc are more prone to airway obstruction & their PEFr will be impaired. House wife's on the other hand are exposed to kitchen smoke, house dust etc due to this their PEFr values are very low. Also due to Atopic Asthma (In Atopic Patients) there is increased immune response, in turn causes excessive mucous production which causes obstruction in airways and thus impaired PEFr values.

Shatyadi Churna has *Hridya karma* as *Moola* of *Pranavaha Srotasa* are *Hridya* & *Maha Srotasa*, So due to *hridya*, *Lekhna*, *Balya*, *Rasayana*, *Dipana-Pachana*, *Bhedana karma* & *Katu-Tikta Rasa*, *Ushna virya*, *Katu Vipaka*, *Vata-Kapha Shamaka* property it improves lung functions, expel out *Dushita Kapha*, *Dhushita Aam Pachana* is done, improves tone of heart muscles, improves immunity and thus improvement in PEFr values were reported.

CONCLUSION

- *Tamaka Shwasa* is a *Vata-Kapha* dominant & also it is *Pittasthana Samudbhava Vyadhi* 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 *Tamaka Shwasa*.
- As *Tamaka Shwasa* is a *Vata-Kapha* dominant disease, so *Vata-Kapha Shamaka* treatment should be given. *Shatyadi Churna* fulfills the above criteria.
- Overall effect is that in 33.33% i.e 1 out of 30 pateints 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/Avasthika Virechana* the effects of *Shatyadi Churna* were maximized.

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