A CLINICAL EFFECT OF TRIVRT-ASHTAKA CHURNA AS A VIRECHAKA YOGA IN THE MANAGEMENT OF TAMAKA SHWASA (BRONCHIAL ASTHMA)

M.P. Mahesh1*, Imlikumba1, B.A. Lohith2, M. Ashvinikumar3, S Lalravi1

1PG Scholar, 2Associate Professor & HOD, 3Professor, Department of Panchakarma, SDM College of Ayurveda & Hospital, Hassan, Karnataka, India.

ABSTRACT

Virechana Karma is one of the prime modality of the treatment in Panchakarma. Different types and forms of Virechana Yoga’s are mentioned with specific indications in classics. The trail drug Trivrt Ashtaka Churna is one of the such Virechana Yoga told in our classic. Clinical validation of this drug is further requires, scientific explanation and justification for its global acceptance as a Virechaka Yoga. Tamaka Shwasa occurs mainly due to vitiation Kapha Vata Dosha’s in Pittta Shthana. It shows close resemblance with Bronchial Asthma on the basis of clinical manifestations. Managing Bronchial asthma on Ayurvedic line of treatment is totally different from that of conventional management. Virechana Karma is the best modality in management of Tamaka Shwasa. Hence the present study has been taken up to see the efficacy of trail drug Trivrt Ashtaka Churna on 30 cases of Tamaka Shwasa (Bronchial Asthma). Results: The study observations showed that the 100% good palatability for Virechana Yoga, 64.3% patients got their first Yoga on an average time 30 minutes, in 57.1% patients 16 - 18 Vegas were noted, Samvak Shuddhi Lakshana with Pittanta was observed in 57.1% of patients. There was a highly significant improvement in symptoms like Swasa krichrata, Kasa, Ghurghuraka, Kaphanishivama and in signs like Ronchi, Wheeze and Respiration rate got highly significant results (at p<0.001). Conclusion: After going through the clinical changes observed during and after the treatment, it may be opined that, Trivrt Ashtaka Churna acts as a Virechaka Yoga significantly in the management of signs and symptoms of Tamaka Shwasa.

KEYWORDS: Tamaka Shwasa, Bronchial Asthma, Trivrt Ashtaka Churna, Virechana Karma.

INTRODUCTION

Tamaka Shwasa is a Pranavaha Srotovikara1. Being Kapho-Vata dominant disease, it takes its origin from Pittastana2. Any illness in a person enforces him to be restricted to bed is the usual consequence but in this disease patient gets up instead of lying on the bed which is the most comfortable position for Shwasa-Rogi. Tamaka Shwasa is mentioned as one of the variety among five types of Shwasa. It is a ‘Swantartra’ Vyadhi and having its own aetiology, pathology and management. It is mentioned as Yapya Vyadhhi i.e. chronic in nature.

Bronchial Asthma closely resembles with Tamaka Shwasa symptoms3. Asthma is a serious condition which can directly hamper the one’s ability to breathe and suddenly deprive the most important nutrient of life i.e. Oxygen. People who are having an Asthma attack have real trouble in taking a breath. Many people with stuffy filled noses due to hay fever or colds say, "I can't breathe" but they retain the option of breathing through the mouth. However, in Asthmatics they known what "I can't breathe" actually means, as in here, instead of their nasal passages, it is the bronchial tubes in their lungs that become swollen and clogged. Breathing can become frighteningly difficult4. Asthma involves two conditions:

1. Contraction of the small muscles surrounding the bronchial tubes and
2. Inflammation of the lining of those tubes.

The global prevalence of asthma is anticipated to be approximately 4.5 percent5,6. There are about 334 million patients with asthma affecting all age groups, across the world7 and its present mortality rate is yearly 5000 deaths in 10million of people. A recent analysis using three different estimate models (INSEARCH, GINA and WHO survey) suggests that the prevalence of asthma in India varies between 2.05 to 3.5 per cent (17-30 million patients)8.

The estimated cost of asthma treatment per year for the year 2015 has been calculated to be approximately ₹139.45 billion9 in India. An estimated 15 million disability adjusted life years (DALYs) are lost due to asthma5,10.

In present scenario Panchakarma (Detoxification) therapy is the best way to effectively & safely manage these conditions without any drug dependency. Here the medicated Gritha is used which gives nutrition & increases the elasticity of lung tissue & develops natural immunity of the body.

Shodhana procedure has given a due importance in this disease by almost all Acharyas. So keeping this point in mind, only Shodhana therapy is considered as therapeutic regime in this study. This study has been designed to assess the efficacy of trial drug “Trivrt Ashtaka Churna”11 as a Virechaka Yoga in the management of Tamaka-Shwasa.

In the management of Tamaka Shwasa, Samshodhana has a got vital role were in excessively vitiated Doshas are eliminated from their abode. Acharya
Charaka mentioned “Vata Shleshma Haraihi Yuktaam Tamaketu Virechanam”\(^{12}\), Virechana Karma in the Management of Tamaka Shwasa as it acts not only on Pitta Dosh but also on Vata and Kapha Dosh\(^{13}\). So here in the present study Snehapana with Kantakari gritha\(^{14}\), Swedana and Virechana with trail drug Trivrt Ashtaka Churna is considered.

AIMS AND OBJECTIVES

1. To evaluate the effect of Trivrt Ashtaka Churna as Virechaka Yoga in management of Tamaka Shwasa (Bronchial Asthma).

2. To evaluate the effect of Virechana Karma on signs and symptoms of Tamaka Shwasa (Bronchial Asthma).

MATERIALS & METHODS

Selection of the patients: 30 patients diagnosed with Tamaka Shwasa (Bronchial Asthma) were taken for study from IPD of S.D.M college of Ayurveda and Hospital, Hassan, Karnataka.

Source of Drugs: The required raw drug for the treatment was purchased in SDM Ayurvedic pharmacy, Hassan.

Method of collection of data: The patients were selected randomly irrespective of caste, religion and locality. A special proforma was prepared with all points of history taking, symptom as quoted in Ayurvedic literatures. The selected patients were subjected to detail clinical history and complete physical examination before undergoing the clinical study.

Criteria for diagnosis

1. As per classical signs & symptoms of the disease.

2. By detailed case taking using the proforma.

Before administration of therapy, a detailed proforma containing complete history, Signs & symptoms, Dasha vidha Pariksha, Nidana Panchaka etc. from classics are compiled & filled for each patient.

Apart from these Respiratory system examinations with regards to Inspection, palpation, Percussion & auscultation were done; certain vital data’s B.P, pulse, Respiratory rate, Temperature were also monitored.

Along with this Spirometry test, Hb%, TC, DC, ESR were done for all the patients in before treatment & after follow up Spirometry test was done to see the change.

RBS, urine analysis, ECG, X-ray & other relevant investigations were also carried out before starting the treatment. All these were carried out in the laboratory of S.D.M Ayurveda Hospital, Hassan.

Some of these investigations were carried out in 2 sittings, during pre and post therapeutic measures, to know the efficacy of the treatment on these parameters. Finally, the obtained results will be represented with the aid of analytical Statistical techniques.

Inclusion Criteria

1. Mild intermittent, mild persistent, moderate persistent asthma according to Global Initiative for Asthma (GINA) guideline.\(^{15}\)

2. Patients in the age group of 17 to 65 years either of sex.

3. Patients who are in fit for Virechana Karma.

Exclusion Criteria

1. Severe persistent asthma according to Global Initiative for Asthma (GINA) guideline\(^{16}\).

2. Patient who are unfit for Virechana Karma.

3. Patient of Tamaka Shwasa with any complication and systemic disorders.

4. Patient of Tamaka Shwasa with Chronic Bronchitis, Pulmonary Tuberculosis.

Drug, Dose & Durations of therapy

Initially Koshta Pariksha was done using Triphala Churna 1tsp with warm water or 1 cup of Sugarcane juice or 1 cup of warm Milk, etc. at bed time. According to Mala Pravritti which was observed next day Koshta was decided. As the all patients had Madhyama Koshta, so the dose of Virechana yoga (Trivrt Ashtaka Churna) was fixed to Madhyama Churna Yoga Matra i.e. 2 Karsha (as a whole 30 grams)\(^{17}\).

Design of group and management

Study is divided into 3 main parts i.e.

1. Purvakarma

2. Pradhanaakarma

3. Paschatkarma

Purvakarma

Deepana-Pachana: Panchakola Phanta 30ml thrice a day before food was given till the attainment of Nirama Lakshanas was given.

Snehapana: Kantakari Ghrita was given in Arohana karma depending on the Agni until the Samyak Snigdha Lakshanas were achieved.

Vishrama Kala: Sarvanga Abhyanga with Murchita Taila for 35 minutes followed by Mrudu Bhashpa Sweda

Dashamula Kwatha was done in

On the day of Virechana Sarvanga Abhyanga with Murchita Taila for 35 minutes followed by Mrudu Bhashpa Sweda with Dashamula kwatha was given. Trivrit Ashtaka Churna as Virechana Yoga was administered in the dose of 30 gm between 8:50am to 9:15am with Madhu as Anupana.

Paschatkarma

Patient was kept on Samsarjana Krama according to Shuddhi attained.

Abhyantara Snehapana

Snehapana was done in Arohana Karma with the initial dose fixed at 30ml which was later increased day by day by 30-70ml looking in to time taken to digest Sneh\(\) on day to day basis till Samyak Snigdha Lakshanas were observed. Kantakari Ghrita was administrated early in the morning with Ushna Jala as a Anupana. Finally, the appearances of Samyak Snigdha Lakshanas were considered as the final criteria to stop Snehapana. Diet during Snehapana was considered according to the rule of Snehapana. i.e. Drava, Ushna, Anabhishyandhi, Pramanathah (in proper quantity), Naatisnigdha, Asankirna-Ahara was given.
Virechana Karma

After Samyak Snigdha Lakshana appeared, 3 days of gap was given were in Abyanga with Murchita Taila followed by Bashpa Sweda with Dashamoola Kashaya were performed. On the day of Virechana after evacuation of natural urges & bath, in empty stomach again Bahya Abyanga followed by Bashpa Sweda is to be administered. After passing of Kapha Kala i.e. at about 8:50am to 9:15am. Patient was administered with Trivrit Ashtaka Churna as a Virechaka Yoga as was administered in the dose of 30gm with Madhu as Anupana. All the vitals like Blood pressure, Pulse and Respiration rate are noted. These vitals are also recorded during the complete process of Virechana Karma. Care full observation is done for assessing the Virechana Vegas and the patient is advised to observe the color of stool, smell, type of excreted materials, its constitutions, Snigdhata, any burning sensation, pain, till the Kaphanta Virechana conditions arises. At last, the patient is assessed for type of Shudhi, Hina, Madhyama, and Uttama.

Samsarjana Krama

Depending on the Shuddhi Lakshanas Samsarjana Krama was started with Peya, Vilepi, Akrita & Krita Yusha, Akrita & Krita Mamsa Rasa for 3, 2 & 1 Anna Kala respectively in Pravara, Madhyama & Avara shuddhis.

Criteria to assess the Signs & Symptoms

The chief criteria was the relief in clinical signs & symptoms. These were assessed by giving specific scores which were helpful in Statistical analysis. These scores are presented as follows.

1. After Snehapana: for Samyak Snigdha Lakshanas
2. After Virechana Karma
   a. Drug palatability
   b. Time taken for the onset of Virechana
   c. Number of Virechana Vega
   d. Duration of Virechana
   e. Anthiki Shuddhi
   f. Laiingiki Shuddhi
   g. Vegiki Shuddhi
   h. Virechana Vyapad (if any)
   i. Discomort to the patient
   j. Respiration, Pulse rate and Blood pressure before, during and after Virechana Karma.

3. Severity of Tamaka Shwasa

1. Mild intermittent
   - Symptoms -symptoms < 2 times a week.
   - Asymptomatic and normal PEF between exacerbations, brief exacerbation (few hours too few days), and intensity may vary.
   - Night time symptoms < 2 times a month.
   - Lung function – FEV, or PEF 60% to 80% predicted, PEF variability>20%

2. Mild persistent
   - Symptoms - symptoms > 2 times a week but < 1 time a day, exacerbation may affect activity.
   - Night time symptoms > 2 times a month
   - Lung function - FEV, or PEF 80% predicted PEF variability 20% to 30%.

3. Moderate persistent
   - Symptoms - Daily symptoms, daily use of inhaled short acting beta2 agonist, exacerbations affect activity, exacerbations>2 times a week, may last for few days.
   - Lung Functions - FEV or PEF 60% to 80% predicted, PEF variability > 30%.

4. Severe Persistent
   - Continual symptoms, limited.
   - Physical activity affected with frequent exacerbation.
   - Night time symptoms – frequent.
   - Lung function - PEF or PEF < 60% of predicted, PEF variability > 30%

4. Vyadi Pradhana Lakshana with Avadh

1. Shvasakrichatha (Difficulty in breathing)
   1. Mild - Breathlessness with activity
   2. Moderate - With talking.
   3. Severe - At rest.
   4.-Impending respiratory failure Breathlessness at rest.

2. Shvasakrichatha with Duration
   0- No attack
   1- once in a month
   2- once in two week
   3- once a week
   4- twice a week
   5- everyday

3. Kasa (coughing) severity
   0- no cough
   1- occ. Cough
   2- cough at night
   3- throughout day time
   4- throughout day & night

4. Ghurghurukam (audible wheez)
   0- no Ghurghurukam (wheezing)
   1- Ghurghurukam (wheezing) only during attack
   2- very often Ghurghuruk (wheezing) sound
   3- Ghurghuruk (wheezing) at night
   4- Ghurghurukam (wheezing) all the time

5. Parshvashula (pain in intercostals space, thoracic region)
   0- no pain
   1- pain on exertion
   2- pain on cough
   3- pain relieved by expectoration
   4- pain during attack of breathlessness

6. Asino Labhatesaukhyam (get relief with sitting posture)
   0- can sleep easily
   1- can sleep with Head end Elevation
   2- cantSleep, spontaneous sitting upright
5. Spirometry tests

Computerized electronic kit micro spirometer was used in this study for assessing pulmonary ventilation capacity. The technical features of this spirometer included:
- Flow meter Bi-directional digital turbine.
- Range for flow measurement 0.03 - 20 l/s
- Range for volume measurement 10l
- Accuracy of measurement 3% or 50 ml
- Dynamic Resistance @ 12 l/s < 0.7 cmH2O/l/s

The interpretation of the predicted values for Spirometric Lung volumes was calculated following the ERS 93 criteria (Official Statement of the European Respiratory Society, The European Respiratory Journal Volume 6, Supplement 16, and March 1993.) following is the list of Spirometric tests, included in the present study on Tamaka Shwasa.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>UM</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>FVC1 (btps)</td>
<td>Forced Expiratory Vital Capacity</td>
<td></td>
</tr>
<tr>
<td>FEV1 (btps)</td>
<td>Forced Expiratory Volume in 1 second</td>
<td></td>
</tr>
<tr>
<td>PEF1/sec</td>
<td>Peak Expiratory Flow</td>
<td></td>
</tr>
<tr>
<td>FEV1/FVC%</td>
<td>FEV1 as a percentage of FVC</td>
<td></td>
</tr>
</tbody>
</table>

STATISTICAL ANALYSIS

Statistical package for social science (SPSS) version 20 was used for the data analysis.
- Friedman’s test.
- Post Hoc analysis with Wilcoxin signed rank test with Bonferroni correction applied.
- Paired ‘t’ test.
- Cochran’s Q test.

OBSERVATIONS

Observations on Patient

In this study among 30 patients 28 completed the whole treatment course, as 2 patients left the treatment due to their personal problems. So among 28 patients, maximum i.e. 35.7% were in age group of 21 to 30 years, there were 42.9% of male and 57.1% of female patients, maximum numbers of patients (96.4%) were Hindus, 64.3% patients are from Urban habitat, maximum 46.4% (each) patients were students, majority of 57.1% of patient were belonging to middle class, maximum number of patients 53.6% have studied up to Pre University level, maximum numbers of patients i.e. 53.6% were bachelors, 78.6% of patients were having Moderate Shwasakrichrata, 42.9% of patients were having Shwasakrichrata once in two weeks, 35.7% patients were having Kasa at night, 39.6% of patients were complaining of Wheezing during attack, 50% of patients were complaining of Pain on Cough, 75% were able to sleep with Head end elevation, 46.4% were having Kapahanishtivana only in morning time, 60.7% of lies were having Moderate Persistent Asthma, 71.4% patients had Gradual onset of disease, 85.7% of patients the course of disease was relapsing, aggravating season for the maximum number of patients i.e. 46.4% was in winter season, 50% of patients got relief after exposure to hot environment, 50% of patients got relief after exposure to hot environment, 50% had disease onset between 2.1-5 years, 46.4% of patients had no family history of Tamaka Shwasa, 46.4% of patients took Expectorants, 78.6% are consuming Non-vegetarian foods, 60.7% had Vishamasana, 42.9% were studying, 60.7% patients reported disturbed sleep, 60.7% were having normal consistency of Bowel, 78.6% were addicted to Coffee/Tea as a daily habit, 50% were having Kapha Prakruti, 70% of patient were having Pravara Satva, 60% of patients were of Madhyama Satmya, 43.3% were suffering from Madhyama Vyayamashakti.

Observations on Treatment

During treatment, among 28 patients, 46.4% of patients took 2 days for Deepana and Pachana, 60.7% patients took Snehapana for 4 days, all patients had showed that Virechana Yoga is 100% palatable, 64.3% patients had 1st Virechana Vega less than half an hour, 46.4% patients had completed Virechana in 7.30 to 9.00 hours, 57.1% patients got 15 to 19 Vegas, 89.3% got Madhyama Vegiki Shuddhi Lakshanas, 57.1% got Pittanta.

Among Virechana Samyak Yoga Lakshana’s, Agnivridhi (100%), Kshudha Pravrutti (90%), Trishna Pravrutti (96.4%), Srotovishuddhi (96.4%) & Indriya Prasada (92.8%), Laghuta (100%), Vatanulomana (100%), Daurbalyata (76%), Vit-Pitta-Kapha-Vata Kramena Prapti (79.2%), and Manah Prasada (47%) were observed. 92.9% patients had completed Madhyama Shuddhi Samsarjana Krama.

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Parameter</th>
<th>Chi-Square</th>
<th>P value</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shwasakrichrata</td>
<td>61.024</td>
<td>&lt; 0.001</td>
<td>S</td>
</tr>
<tr>
<td>2</td>
<td>Duration of Shwasakrichrata</td>
<td>67.452</td>
<td>&lt; 0.001</td>
<td>S</td>
</tr>
<tr>
<td>3</td>
<td>Severity of Kasa</td>
<td>42.339</td>
<td>&lt; 0.001</td>
<td>S</td>
</tr>
<tr>
<td>4</td>
<td>Ghurghuraka</td>
<td>51.691</td>
<td>&lt; 0.001</td>
<td>S</td>
</tr>
<tr>
<td>5</td>
<td>Parshvashula</td>
<td>48.724</td>
<td>&lt; 0.001</td>
<td>S</td>
</tr>
<tr>
<td>6</td>
<td>Aasinolabhatasaukhya</td>
<td>32.609</td>
<td>&lt; 0.001</td>
<td>S</td>
</tr>
<tr>
<td>7</td>
<td>Kaphanishtivana</td>
<td>46.701</td>
<td>&lt; 0.001</td>
<td>S</td>
</tr>
</tbody>
</table>

Available online at: http://ijapr.in
To know the effect of Virechana on Subjective Parameters of Tamaka Shwasa like Shwasakrichrata, duration of Shwasakrichrata, Kasa, Ghurghuraka, Parshvashula, Aasinolabhatesaukhyam and Kaphanishtivana, first Friedman test was applied and here in all parameters it shows that there were statistically significant differences are found with respective to X² and p < 0.001 values. Post hoc analysis with Wilcoxon signed rank tests was conducted with a Bonferroni correction applied, resulting in a significant level set at 0.0125 (Table.1).

### Table 2: Results on Objective Parameters

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Parameter</th>
<th>Chi-Square</th>
<th>P value</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Breath sounds</td>
<td>58.395</td>
<td>&lt; 0.001</td>
<td>S</td>
</tr>
<tr>
<td>2</td>
<td>Adventitious sounds</td>
<td>42.284</td>
<td>&lt; 0.001</td>
<td>S</td>
</tr>
<tr>
<td>3</td>
<td>Ronchi sounds</td>
<td>8.214</td>
<td>&lt; 0.001</td>
<td>S</td>
</tr>
<tr>
<td>4</td>
<td>Crepitation sounds</td>
<td>5.00</td>
<td>0.172</td>
<td>NS</td>
</tr>
</tbody>
</table>

To know the effect of Virechana on Objective Parameters like Breath sounds, Adventitious sounds, Ronchi sounds and Crepitation sounds, first Friedman test was applied and here in all parameters except Crepitation sounds, shows that there were statistically significant differences are found with respective to X² and p < 0.001 values. Post hoc analysis with Wilcoxon signed rank tests was conducted with a Bonferroni correction applied, resulting in a significant level set at 0.0125 (Table.2).

### Table 3: The results of Student 't' test on Spirometry Analysis

<table>
<thead>
<tr>
<th>Parameters of Spirometry (analysed Before Treatment - After Samsarjana Krama)</th>
<th>Mean</th>
<th>SD</th>
<th>SE</th>
<th>t Value</th>
<th>p Value (2-tailed)</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>FVC Forced Vital Capacity</td>
<td>-25.714</td>
<td>33.92</td>
<td>6.411</td>
<td>-4.011</td>
<td>&lt; 0.001</td>
<td>S</td>
</tr>
<tr>
<td>FEV1 Forced Expiration Volume in 1 sec</td>
<td>-17.429</td>
<td>31.97</td>
<td>6.042</td>
<td>-2.885</td>
<td>0.008</td>
<td>S</td>
</tr>
<tr>
<td>FEV1 as % of FVC</td>
<td>1.321</td>
<td>15.149</td>
<td>2.863</td>
<td>0.462</td>
<td>0.648</td>
<td>NS</td>
</tr>
<tr>
<td>Respiratory Rate</td>
<td>2.786</td>
<td>1.572</td>
<td>0.297</td>
<td>9.378</td>
<td>&lt; 0.001</td>
<td>S</td>
</tr>
</tbody>
</table>

To know the effect of treatment on parameters of Spirometry, paired t-test was applied. It is evident from the above table that there was significant change FVC and FEV1 at all the levels of the treatment with p<0.001, but non-significant in FEV1/FVC at all the levels of the treatment with p = 0.648 (Table.3)

To know the effect of treatment on Respiratory rate, paired t-test was applied. It is evident from the above table that there was significant change in Respiratory rate at all the levels of the treatment with p<0.001 (Table.3)

Results of Cochran's test on Virechana Samyaka Yoga Lakshana

Graph.1: Results on Subjective Parameters of Virechana

Cochran's Q test analysis where Q=159.84 and p < 0.001 found significant results in Samyak Virikta Lakshanas, this shows that 30 gms of Trivrt Ashtaka Churna can produce Samyaka Yoga Lakshana in Mrudhu Koshta individuals. (Graph.1)
Among Virechana Ayoga Lakshanas Chardi in 16 patients and Tanda in 5 patients were observed and further these symptoms were subsided by itself (Graph.2)

**DISCUSSION**

**The Disease**

Tamaka Shwasa is explained in all Samhita which shows the existence of the disease from ancient time. Almost all the classics related to the Ayurveda have explained about Pancha Shwasa, and Acharya Charaka has explained separate Samprapti for Tamaka Shwasa apart from general Samprapti of Shwasa and the treatment explained in Shwasa Chikitsa Adhikara is primarily for Tamaka Shwasa only.

This disease is having very close resemblance with Bronchial Asthma. Hypersensitivity of the tracheo-bronchial tree to a number of allergens is said to be the basic pathology of Bronchial asthma in modern parlance. This hypersensitivity reaction results in inflammation of the air passages. The inflammation is characterized by wide spread congestion of the tracheo-bronchial tree, spasm of the smooth muscle and secretion of tenacious sputum. These pathological changes contribute to the narrowing of the air passages. Thus the patient develops the difficulty in breathing. Personal or family history of narrowing of the air passages. Thus the patient develops difficulty in breathing. Personal or family history of difficulty in breathing. Personal or family history of difficulty in breathing.

The **Virechana Karma**

**Pachana:** Before the administration of Snehapana, the body should have Nirama state which is achieved by Pachana and Agni Vridhdi achieved by Deepana state. The reason behind it is that the qualities of Snehana Dravya need a platform for its action. These drugs which are digestive and carminatives stimulate enzymes, HCL, pancreatic and bile secretions thereby proper assimilation of nutrients occur. Hence these are made to move towards Koshta by means of oleation and fomentation. Snehana is able to increase the quantity of Dosha (Utklesha) at the site of disease due to Kledana

Available online at: [http://ijapr.in](http://ijapr.in)
property. It loosens and softens the Dosha, increases the liquidity, directs the Dosha towards Koshta, it can enter into minute channels and remove Dosha. Thus it helps in Bringing the Dosha from periphery (Shakha) to Koshta. If Snehapana is not done and Virechana is carried out, then it destroys the tissues of the body.

**Swedana:** It provides kinetic energy by Ushna Guna to those Doshas which are ready to leave from their site of adhesion to the nearest site of elimination. Hence combined action of Sneha and Swedana makes the detachment from the Shakha and helps to move towards Koshta for easy evacuation. Due to production of heat the toxic metabolites are carried by the blood and are brought to the Koshta.

**Vishrama Kala:** After completion of Snehapana 3 day's gap is kept for Abhyanga and Swedana, this three days gap is kept to bring Manda Kapha stage, which is necessary for Samyak Virechana.

**Virechana Karma:** Although, the Virechana is considered the prime treatment modality for Pitta Dosha, it is used in the conditions involving the disorders in which the Pitta is associated with Kapha or Vata. It has direct four criteria are mentioned for the assessment of Samyak Virechana i.e. Vegiki, Maniki, Laingiki and Antiki. Among these Laingiki criteria must be considered mainly for deciding the Samarsjana Krama. Antiki criteria are indicated to stop the process of Virechana. The Virechana drug should be administered after the Shleshma Kala has been passed.

**Samsarjana Krama:** After evacuation, the status of the Agni will get reduced so one should take Peya, Vilepi, Akruta and Kruta Yusha Rasa, in three, two or one meal time according to the evacuation. As little fire kindled gradually with grasses, cow dung etc. Becomes great, stable and all-digesting.

**The Drug**

Trivrt is best among all Virechaka dravyas & is known as the Sukha Virechaka & Kapha-Vatahara in nature. Similarly, Sarkar is Vata-Pittahara and other drugs like Mustha, Vidanga, Trikatu, Trijataka are Vata-Kapha hara Vataanulomaka. Amalaki acts as Rasayana, Tridoshagna and Haritaki acts as Tridoshagna, Vataanulomaka. So the combination of all these drugs behaves as Tridoshagna. In Tamaka Shwasa Kapha & Vata are the predominant Doshas & Pitta is the origin site of the disease. So this Trivrt Ashtaka Churna is an ideal combination which acts Virechaka Yoga by specifying all these Dosha through Virechana Karma.

**The clinical study**

This study was carried out on 30 subjects having Tamaka Shwasa, among them 28 subjects completed the course of treatment other two left the treatment because of personal problems. For these 28 patients Virechana was administered in classical method.

At first Panchaka was given with Pancakola Phanta to enhance the digestive power and also to facilitate the early digestion of Sneha. Snehapana was given with Kantakari Ghrita, which was administered in Arohana Matra depending upon the response of the patient till the appearance of Samyak Snigdha Lakshanaa. After this 3 days' gap was given and on 3rd day Virechana was administered with Trivrt Ashtaka Churna 30 gms, with the Madhu as Anupana.

The result of each therapy were statistically analysed and finally inferences were drawn on the basis of the data &some of them are put forward hereby.

**Deepana and Pachana:** Among 28 patients of Madhyama koshta, 46.4 % patients got Niramam Lakshana on 2nd day and 25 % got Nirama Lakshana on 3rd day. This may be due to drug Panchakola Phanta of 30 ml thrice a day is sufficient to produce Nirama Lakshanas in Madhyama Koshta person.

**Samyak Snigdha Lakshana:** It can be divided into two viz. Koshta related Lakshana, and Tvacha related Lakshana. The symptoms related to Koshta such as Vataanuloma, Deepa Agni, Varcha Snigdhat, Asamhata Varcha appeared on 3-4 days in 89.3 % patients. The symptoms related to skin such as Mriduta and Snigdhat of Tvacha appeared on 4-5 days in 71.4 % patients.

Overall Samyak Snigdha Lakshanas appeared more earlier in females than in males i.e. it appeared on 3rd day itself in females whereas it was noticed in males on 4th and 5th day.

**Palatability of Virechana Yoga:** 100% palatability was found in all 28 patients as the Yoga contains Trijataka, Sarkara also the Yoga is administered with Honey as Anupana this makes Yoga more palatable to the patients.

**Onset of 1st Virechana Vega (Latency Period):** 64% of patients got 1st Vega within 30 minutes, as the Vega starts during Pachyamana Avastha of Aushada, as the state of Agni was good after Snehapana so that maximum number patients got 1st Vega in 30 minutes.

Also the Trivrt Ashtaka Churna is having approximately of 85% Laghu Ruksha Guna, 90% of Katu Tikta Rasas, 70% of Ushna Virya, 50% of Katu Vipaka, from these properties of Trivrt Ashtaka Churna onset of 1st Vega occurred within 30 minutes.

**Total duration of Virechana Karma:** Maximum number of the patients i.e. 46.4 % patients got completed in 7 hours 30 minutes to 9 hours, 39.3 % patients got completed within 5 hours to 7 hours 30 minutes, 14.3 % patients got completed in 9 - 12 hours.

Total number of Virechana Vega’s: Maximum of 57.1 % patients got 15 - 19 Vegas, 7.4% patients got more than 23 Vegas and 35.7 % patients got 10-14 Vegas.

**Vegiki Shuddhi:** Maximum of 89.3 % patients got Madhyama Vegiki Shuddhi (10-20 Vegas) and minimum of 3.6 % patient had Avara Vegiki Shuddhi (Upto 10 Vegas), remaining 7.1 % got Pravara Vegiki Shuddhi (21-30 Vegas).

**Antaki Shuddhi:** Maximum of 57.1 % patients got Pittanta that means in Madhyama Matra of Trivrt Ashtaka Churna i.e. 30 gms with Madhu as Anupana, can able produce Pittanta in Mrudu Koshta individuals.

**Laingiki Shuddhi:** Only Karshyata, Hridhvarna Shuddhi were absent in 76 % patients and Dourbalyata was absent in 28.8 % patients. Remaining all Lakshana were present in maximum percentage of patients (approx. >75%).

**Samsarjana Krama:** 92.9 % of patients followed Madhyama Shuddhi Krama of Samsarjana Krama with 3 Anna Kala per day for 5 days.
The effect of therapy

On Subjective Parameters of Tamaka Shwasa

All subjective parameters found statistically significant improvement at the level of \( P < 0.001 \) (by Friedman test and post hoc Wilcoxon test analysis). This shows the effect Virechana by Trivrt Ashtaka Churna in Tamaka Shwasa.

Shwasakruchrata and its duration: The Dusta Kapha obstructs the Prakupita Vayu in Pranavaha Srotas & this obstruction is relieved better by Virechana Karmaas it does the Vatanulomana, Kapha Dosha is pacified by Ushna, Tikshana Guna & Katu, Tikta Rasa of Haritaki, Trikatu and Trivrt. The Pitta Sthana Shudhi is done by Virechana & pacified by Snigdha, Shita Guna of Sharkara (6parts).

Kasa: Due to Tridosha-hara, Usnavi, Vasishwasahara properties of Trivrt Trikatu&Trijataka Vidanga etc drugs & Srot-rodha of the Pranavaha Srotas is cleared, Kasa was reduced statistically.

Ghurghurakam: It is produced due to obstruction of Prana Vayu & this is relieved better by Virechana Karma due to its effect on Srotorodha, & Vatanulomaka & also Kapha Pitta Shodhaka.

Asinolabhatasaukhyam: Due to Pitta Sthana Dushthi, there is Ama Rasautpatti & this causes excess secretion of Dusta Kapha in Pranavaha Srotas. When Vayu gets obstructed by Dusta Kapha, on lying the Vayu gets entrapped and unable to escape, and secondly at this stage there is decrease the space for the movement of Prana Vayu. The Virechana Karma by its effect does the Shuddhi of Pitta Sthana, Vatanulomaka & also does Kapha Pitta Shodhaka.

Kaphanisteevanka: Shodhan Chikitsa has better results as Snehapana (with Kantakari Ghrita) helps in easy removal of sticky & thick sputum. Srotosodhana by Virechana helps in removal of Dusta Kapha & facilitates the movement of Pranavayu. By this patient feels relaxed after spitting out the sputum in every time.

Objective Parameters of Tamaka Shwasa

Majority of objective parameters found statistically significant improvement at the level of \( P < 0.001 \) (by Friedman test and post hoc Wilcoxon test analysis also by paired T test), except in parameters like Crepiation and FEV1%.

Auscultation: It was done throughout the process of treatment and found statistically significant results in Breath-sounds, Wheeze and Ronchi, as because these abnormal sounds got treated efficiently by Snehan-chana, followed by Virechana. But non-significant in Crepiation sounds as it was found only in 14.3 % patients so it’s not possible more on it.

Spirometry Analysis: There was significant increase in FVC and FEV, suggests that there is significant increase in forced vital capacity and lung capacity also significant increase in forced expiratory capacity (Friedman and post hoc Wilcoxon Tests).

Respiratory rate: Before treatment and after Samsarjana karma rate of Respiration found statistically increased (paired T test).

Suggests significant reduction in airway obstruction due to broncho constriction, airway edema, sticky lodged mucous plug and inflammation, by the Virechana Karma with Trivrt Ashtaka Churna.

Subjective Parameters of Virechana

Samyaka Yoga Lakshana: 89% of patients got Samyak Virikta Lakhanas. Among them Karshyata, Hridhvarna Shuddhi was absent in 20 patients and Daubalyata was absent in 8 patients. However, on Cochran’s Q test analysis where \( Q=159.84 \) and \( p < 0.001 \) found significant results in Samyak Virikta Lakhanas, this shows that 30 gms of Trivrt Ashtaka Churna can produce Samyaka Yoga Lakshana in Mrudhu Koshta individuals.

Ayoga Lakshana: Among Virechana Ayoga Lakshanas Chardi in 16 patients and Tandra in 5 patients were observed and further these symptoms were subsided by itself.

Atiyoga Lakshana: In this study no one complained of adverse effects or any type of complications during the Virechana Karma, this suggests that 30 gms of Trivrt Ashtaka Churna as a Virechaka Yoga will not lead Atiyoga.

Probable mode of action of drugs used for Virechana:

It is worth mentioning that Virechana Karma, unlike the modern purgatives, is not merely an act of evacuation of the bowel, but is a complete therapeutic measure that has systemic as well as local effects.

The drugs (Trivrt Ashtaka Churna) that are having properties like Ushna, Tikshna, Sukshma, Vyavayi, Vikasi and Adhobhagahara Prabhava, these drugs reach the Hridaya through their Swaveerya (Swaprabhava – Chakrapani) and circulates through large and small blood vessels of the body leading to the action of Virechana.

Action of Ushna guna: Ushna Guna has Agneya property and hence Vishyandana occurs i.e. ‘Vilininan Kurvanti’ (Chakrapani). Hence it facilitates movement of morbid Doshastowards Koshta.

Tikshna guna: “Tikshnyat Vicchindanti” Vicchindanti Chinnam Kuruvanti (Chakrapani), i.e. they break up the Doshas from larger to smaller molecules. Sheegkarakrithwam Taikshnyam, Dalhana says that this helps in quick excretion.

Sukshma: Sukshma Guna due to its Anupravananbhabha, i.e. “Anuvatham Pravanabhabhavacho, Anuvatham-Anumargam Sanarcharitam, Pravanabhavima Koshta Gamanon-mukatvam”. It will open micro channels and makes the Doshas to move towards Koshta.

Vyavayi: Due to this, drugs spread quickly throughout the body and starts their action before its digestion.

Vikasi: Vikasi drugs loosens and helps in breaking the binding of Doshai and Dushya (Doshai Dushya Samurcchana Vighatanameva Chikitsa). From all these properties Doshas are driven to Koshta. The presence of Pritrivi and Ap Mahabhutha Pradhanyata in Virechaka drug with the Adhobhaga Prabhava, eliminates the Doshas out through Guda Marga.

It can be summarized as the drug which is administered even before it passes through the second phase of digestion due to Vyavayi quality, circulates all over the body through minute channels with the help of Anuthwa of Sukshma Guna. Thus traveled medicinal properties breaks the binding of Doshai and Dushya in the
site of Vyadhī manifestation with the help of Vikasī Guna. By Ushna Tikshna property they get liquefied and moves towards Koshta by Pravarna Bhava of Sukshma Guna. This is possible when Vata is under control by means of Snehana and Swedana in the Poorvakarma. Later the Dosa which is reached to the Koshta is eliminated by the Prabhava (Adhobaghara Prabhava) of Virechana Dravyas.

**Systemic action:** Doshas are brought to Koshta from Snehana and Swedana, from there they are eliminated by Virechana which suggests action throughout the body.

Oleation (Snehana) and Sudation (Swedana) prior to Virechana helps in dissolving the intracellular toxins and expel them into exterior of cell from where they are thrown outside the body. Scientific explanation for this whole procedure can be summarized as:

1. **Passive diffusion** is the most important mechanism for majority of drug transport. Lipid soluble drugs diffuse by dissolving in the lipidal matrix of the membrane, the rate of transport being proportional to lipid: water partition coefficient of the drug. A more lipid soluble drug attains higher concentration in the membrane and diffuses quickly.

2. As temperatures increases, (externally by sudation) both the cell membrane and the proteins can be affected. The fatty acid tails of the phospholipid bilayer can “melt” at high temperatures meaning that they become more fluid and allow more movement. This affects the permeability of the cell which increases.

3. Heat is expected to enhance the body fluid circulation, blood vessel wall permeability, rate-limiting membrane permeability, and drug solubility. Heating the skin after the topical application of a drug will increase drug absorption into the vascular network, enhancing the systemic delivery but decreasing the local delivery as the drug molecules are carried away from the local delivery site studies indicate that temperature changes of approximately 5°C are necessary to cause measurable changes in cell membrane permeability.

4. External heating induces changes in hemodynamic, body fluid volume, and blood flow distribution, which in turn may affect the pharmacokinetics or bioavailability of administered drug. The body's initial response to heat is peripheral vasodilation followed by perspiration, which results in a large fraction of the total blood volume being circulated through the skin vessels for cooling.

**Local action:** Locally mild inflammation occurs which is transient due to Ushna Tikshna property and drugs which irritates the intestinal mucosa. Hence Hyperemia results due to arteriolar and capillary dilatation and also edudation of protein substances which helps in dilution of toxins.

These Doshas which is reached to the Koshta is eliminated by the Prabhava (Adhobaghara Prabhava) of Virechana Dravyas.

**CONCLUSION**

Virechana Karma is mentioned in Tamaka Shwasa as Udbhaya Pratyankha Chikitsa as it acts on both Moola Sthana of Dosha i.e. Pitta and other associated Doshas i.e. Kapha and Vata. All the general Nidana's mentioned for Shwasa Roga even holds good for Tamaka Shwasa also.

Maximum patients ended up with Madhyama Shuddhi 89% and Pittanta Virechana 57.1%. Clinical signs & symptoms of Tamaka Shwasa improved after treatment. In that also Shwasakrichrata, Cough, Ghurghuraka, Breath sounds Wheeze and Respiratory rate shown statistically highly significant results Samsarjana Krama. Spirometry analysis also shown significant results in FVC and FEV1 at P>0.001.

Thus Virechana Karma is effective on signs and symptoms of Tamaka Shwasa. Hence it can be concluded that the trail drug Trivirt Ashtaka Churna acts a Virechaka Yoga in the Management of Tamaka Shwasa effectively.

**The Observations**

The assessment of each patient is done on various parameters like clinical signs and symptoms at B.T. (Before treatment) A.Sn. (After Snehapana), A.V. (After Virechana ) & A.Sm. (After Samsarjana), Laboratory investigations assisted radiologically, and other parameter like Spirometric Analysis was carried out B.T and A.Sm.

**REFERENCE**


M. P. Mahesh et al. Trivrt-Ashtaka Churna as a Virechaka Yoga in the Management of Tamaka Shwasa (Bronchial Asthma)


Cite this article as:

Source of support: Nil, Conflict of interest: None Declared

*Address for correspondence
Dr M.P.Mahesh
Department of Panchakarma, SDM College of Ayurveda & Hospital, Hassan, Karnataka India.
Email: maheshmp14@gmail.com