Critical Review of Ayurveda Approach to Paediatric Asthma w.s.r To Tamaka Shwasa

*Dr. Anukriti Guar  **Dr. Nisha Kumari Ojha

* Assistant Professor, Department of Kaumarbhritya, MJF Ayurveda Mahavidyalaya, Harota, Jaipur (Rajasthan)

** HOD and Associate Professor at P.G. department of Kaumarbhritya, NIA, Jaipur (Rajasthan)

Corresponding author-

Dr. Anukriti Guar, Assistant Professor, Department of Kaumarbhritya, MJF Ayurveda Mahavidyalaya, Harota, Jaipur (Rajasthan) Email Id: drannuguar764@gmail.com Mob-8112287367

Abstract

Childhood asthma (Paediatric asthma) is the most common serious chronic disease in infants and children characterized by completely or partially reversible airway obstruction in bronchial tree, which may improve spontaneously or may subside only after specific therapy. Airway hyper responsiveness is defined as the narrowing of the airways as response to a variety of stimuli, such as allergens, nonspecific triggers and infections. However the disease has been classified in the classics depending on severity of the condition. Maha Shwasa implies all such clinical stages where Shwasa is present at end stage of the disease and considered as incurable. While Urdhwa Shwasa denotes less severe and incurable condition as compared to Maha Shwasa. Chhinna Shwasa also implies similar incurable conditions where there is disturbance in rate and rhythm of respirations. Tamaka Shwasa is Yapya condition, which can be kept under control by medications and Nidana Parivarjana. Hence for all clinical purpose the Asthmatic children should be classified as patients of obstructive and Restrictive disorders of the lung. Obstructive causes of Asthma should be treated with Kaphahara principle while conditions of aggravated Vata should be treated in asthma due to bronchial muscle spam leading to obstruction. At time there will be both involvement of Vata and Kapha. All efforts should be done to keep Vata under normal limits by reversing the bronchial muscle spasm as early as possible by using different Vatahara measure. Meanwhile restrictive disorders of the lung points towards conditions with decreased lung space, loss of compliance of lung, neuromuscular disabilities of chest cavity and treated with certain breathing exercises and Balya treatment.

Key points:- Tamaka Shwasa, Obstructive, Restrictive, Pediatric asthma, Shwasa

Introduction

Shwasa Roga is a condition where in the patient experiences an abnormal or distressful breathing. When Kapha does the obstruction to the channels of circulation and then being itself obstructed, the aggravated Vayu thus results in Shwasa. On the basis of clinical features, Shwasa can be classified into five types as Urdhva Shwasa, Maha Shwasa, Chhinna Shwasa, Tamaka Shwasa and Kshudra Shwasa. On the basis of
prognosis, Shwasa can be again categorized into Sadhya (Curable)- Kshudra Shwasa, Yapya (Palliable)- Tamaka Shwasa and Asadhya (Incurable)- Maha Shwasa, Urdhva Shwasa and Chhina Shwasa.

The word Tamas means darkness. In Tamaka Shwasa, the patient experiences darkness in front of eyes. Tamaka Shwasa is an Amashayasamuttha Vikara. Tamaka Shwasa is again divided into two subtypes; Santamaka and Pratamaka Shwasa. Vayu, which moves in Pratiloma Gati (Reverse order) reaches the Srotasa (Channels of breath), afflicts Greeva (neck) and Shiras (Head) and stimulates the Shleshma to result in Peenasa (Rhinitis). This obstructed Vata produces a series of manifestations, which includes Ghurghuraka (Wheezing sound), Ateeva teevra vegam cha swasam pranaprapeedakam (Difficulty in breathing and takes breath with a deep velocity). Patient gets tremors and Kasa (Cough). Pramoham kasamanashcha sa gachhathi muhurmuhu (Fainting again and again while coughing). As the Shleshma does not come out easily, the patient becomes Dukhita (restless). Once the phlegm comes out, they will feel the relief. Because of the disturbance in the Kantha Pradesha (Throat), there will be inability to speak properly. Na chaapi Nidram labhate (Sleep will be disturbed), on lying down posture breathing difficulty aggravates and Aaseeneno labhate saukhyam (relieves in sitting posture). Ushnam chaiva abhinandathi (Develops likeness towards hot things), excess of sweating occurs in forehead region and person becomes restless. Dried mouth and occurrence of episodes of breathing difficulty is specific to this disease. Disease aggravates when Megha (Clouds appears in sky) and exposure to Ambu (water), Sheeta (cold), Vata (Blowing wind) and Kapha vardhaka ahara vihara. Shwasaroga is diagnosed when the clinical manifestation suggests the vitiation of Vata and Kapha Dosha, affliction of Rasa Dhatu in Pranavaha Srotasa. Treatment of Tamaka Shwasa can be understood according to four different conditions of patients as Balvaan (Strength), Durbala (Weakness), Kaphadhikyata (Predominance of Kapha) and Vatadhikyata (Pre-dominance of Vata). In Kaphadhikya Avastha and Rogi is Balvaan, can be given wholesome food and can be administered Vamana (Emesis) and Virechana (Purgation), followed by Dhooma (Smoking) and Leha (electuraries). Bronchial asthma is a chronic inflammatory disorder of the lower airway characterized by paroxysms of dyspnoea, wheezing and coughs as a result of temporary narrowing of the bronchi by the trio of bronchospasm, mucosal oedema and thick secretions. The prevalence of asthma has increased globally for over three decades. The peak incidence is seen in the age group of 5-10 years. When compared with girls, boys suffer twice as much as them. Even the severity of illness is also more severe in them. In school-going age group, it is about 2%. The prevalence is 25.6% in 2009 which is under 18 years and near about 75% of asthma occurs in children under 5 years of age. Current estimates suggest that asthma affects 300 million people world-wide and there will be an additional 100 million people will be diagnosed by 2025. There are various triggering factors for the causation of asthma which includes infections, exercise, weather, emotions, food and endocrine causes. Children being the most vulnerable group are estimated to have an incidence and recurrence much more than adults because of their specific anatomical and physiological peculiarities and immature immune response, which make them more susceptible to respiratory disorders. Nowadays, the prevalence of bronchial asthma is increasing due to excessive pollution, occupational conditions, stress, overcrowding and poor hygiene. The clinical presentation of asthma varies from recurrent cough to severe wheezing. When seasonal changes occur, symptoms of asthma get manifested. Usually the condition aggravates during exercises and at night time. The drug for asthma should be with properties like Bronchodilator, Anti-allergic, Anti-tussive and expectorant. Asthma, when poorly controlled is always associated with significant morbidity and socio-economic problems like absenteeism from school or work, loss of productivity and wages and thereby a poor quality of life. A poorly controlled asthma can become fatal.

Ayurvedic Perspective and clinical understanding of Tamaka Swasa
Ayurveda has given prime importance to Shwasa Roga as an independent disease as well as a symptom of many other diseases. Shwasa Roga is predominantly Vata-Kaphaja, originating from Amashaya and manifesting through the Pranavaha Srotasa (Respiratory channels). Tamaka Shwasa is a disease in which free flow of Vayu is deranged, when obstructed by the vitiated Kapha in the respiratory pathways.
**Nidana of Swasa Roga (Etiological Factors)**

Ayurvedic management is nothing other than *Nidana Parivarjanam* (avoidance of causative factors). The knowledge of etiological factors (*Nidana*) is very essential for its management. *Tamaka Shwasa* is mentioned as *Kashtasadhya* (difficult to cure) and a thorough understanding of the causative factors is essential in the management. The etiological factors can be summarized as below.¹⁸

<table>
<thead>
<tr>
<th>Apathya Ahara (Unhealthy food)</th>
<th>Apathya Vihara (Unhealthy regimen)</th>
<th>Rogas (diseases)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rukshanna (excessive intake of dried food)</td>
<td>Rajas (dust)</td>
<td>Amatisara (Diarrhea due to indigestion)</td>
</tr>
<tr>
<td>Vishamasana (untimely food intake of food which is excess or low in quantity)</td>
<td>Dhuma (smoke) Anila (breeze)</td>
<td>Jwara (fever)</td>
</tr>
<tr>
<td>Samasana (intake of desirable and undesirable food)</td>
<td>Seeta vayu (cold wind) Vyayama (over exercise)</td>
<td>Kasa (cough) Pratishyaya (allergic rhinitis), Vamadhu (vomiting)</td>
</tr>
<tr>
<td>Adhyashana (intake of meal before digestion of previous meals)</td>
<td>Adhva (excessive walking)</td>
<td>Visha (poisons)</td>
</tr>
<tr>
<td>Seetashana (cold food)</td>
<td>Vega Rodha (suppression of natural urges)</td>
<td>Pando (anaemia), Kshathakshaya (generalized weakness)</td>
</tr>
<tr>
<td>Seetapana (cold water consumption)</td>
<td>Divaswapna (day sleep)</td>
<td>Raktapitta (intrinsic hemorrhage)</td>
</tr>
<tr>
<td>Tila Taila (sesame oil)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guru bhojana (heavy food)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Katu (pungent)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amla (sour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lavana (salty)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saka (leafy)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maasha (black gram)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pistanna (rice flour preparations)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nispaava (beans) Anupa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mamsa (meat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dadhi (curd)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aamakshira (milk)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shleshmala  (Kapha producing food)</td>
<td>Abhisyandi  (food causing obstruction in channels)</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-----------------------------------------------</td>
<td></td>
</tr>
</tbody>
</table>

**Samprapti of Tamaka Shwasa (Pathogenesis of the Childhood Asthma)**

*Samprapti* is the one which explains about manifestation of the disease beginning from vitiation of *Doshas*, their association with *Dhatus*, *Dushti* of the *Srotas*, occurrence of signs, symptoms, till the complete manifestation of the disease and complications if any. It is the mechanism in which the vitiated *Doshas* proceed to the target site to finally manifest the disease with its symptoms. The modern concept of pathogenesis can be compared with this stage. This progress of the disease from the derangement of the *Doshas* by *Nidanas* to its *Vyakthibhava* as the disease proper takes place in various stages involving various factors and body elements.

*Acharya* explain that the vitiated *Kapha* along with vitiated *Vata* obstructs the *Srotas*; the obstructed *Vayu* tries to overcome the obstruction and moves in all the direction resulting in *Shwasa*. Other *Acharya* also quotes that the *Pranavayu* goes against its individually (*Prakriti*) combines with *Kapha* causing *Shwasa Roga*. Another classic further emphasized that the *Annavaha Srotas* is also involved and hence the production of *Kapha* in *Amashaya* is affected. Thus *Shwasa Roga* is regarded as *Amashaya Samudbhava*.

In *Ayurvedic* literature we come across three types of *Samprapti* on *Shwasa* as follows:

- **Samanya Samprapti of Hikka and Shwasa**
- **Vishista Samprapti of Shwasa**
- **Vishista Samprapti of Tamaka Shwasa**

**Samanya Samprapti of Hikka and Shwasa**

Due to *Nidana Sevana*, the vitiated *Vata* enters in the *Pranavaha Srotas* (*Respiratory Channels*) and provokes the *Urastha Kapha* (*Kapha stagnating in chest*). This provoked *Kapha* obstructs the *Pranavaha Srotas* (*Respiratory Channels*) and gives rise to five types of *Hikka* and *Shwasa*.

**Vishista Samprapti of Shwasa**

The vitiated *Vayu* along with *Kapha* causes the obstruction to the respiratory channels, and then *Vayu itself* gets obstructed and spreads in the whole body making abnormal movements and producing *Shwasa Roga*. The *Pranavayu* which has lost its *Prakrutavastha* and get obstructed by dominant *Kapha Dosha*, then attains *Vimargagati*, and move in all directions in the *Uras* there by impairing the respiration and thus leading to *Shwasa*. The word “*Vishwag Vrajati*” has been commented by *Acharya* as “*Sarvato Gachchhati*”, while *Arunadatta* has also narrated restricted movement only within *Uras* or chest.

**Vishista Samprapti of Tamaka Shwasa**

Excessive *Nidana Sevana* leads to *Pratiloma Gati* of *Vata* and vitiate the *Kapha Dosha*. As the result excessive *Kapha* will be secreted and leading to *Peenasa*. *Vata* moving through the *Kapha Avruddha Pranavahasrotas* will produce *Ghurghuraka*, along with intense attacks.
Chikitsa of Tamaka Shwasa

Treatment is nothing but the reversal of pathology; hence it is necessary to recall the pathological processes that occur in Shwasa Roga in general. Vitiation of Kapha and Vata are observed in almost all the varieties of Shwasa Roga. Therefore an effort is made to correct Kapha and Vata Dosha26. But this line of treatment holds good in Tamaka Shwasa. The prognosis of Maha Shwasa, Urdhwa Shwasa and Chhinna Shwasa is very bad; patient dies within short time, before giving sufficient time to diagnose the disease. Probably this could be the reason that the ancient authors might not have given specific line of treatment for each type of Shwasa Roga but it is absolutely necessary now. A keen observation reveals that the explanation of etiology, pathology as well as treatment mentioned in the classics is concentrated more on Tamaka Shwasa rather than other varieties of Shwasa Roga.

Acharya Charaka said that the Shwasa Roga is the disease which takes away the life very quickly and cause emergency condition at any time. Hence they should be attended very quickly with intensive care, if delayed the patient will die within minutes like the dried tree reduces to ashes by fire within no time27.

Chikitsa Siddhanta of Tamaka Shwasa

For the proper management of the disease Acharya Charaka has explained so many different management and treatment principles. With comparison of other authors the principles of management are as follows.

Nidana Parivarjana- Patient should avoid the known etiological factors such as house dust, smoke, fumes, Kapha aggravating food, cold food and the Shwasa aggravating medicines etc.38. Nidana Parivarjana is especially very useful to prevent the disease like Tamaka Shwasa.

Management of Shwasa Rogi depends on:
1. Balabala of the Rogi (Balawan or Durbala Rogi)
2. Doshadhiyka (Kaphadhikya or Vatadhikya)

If the patient is Kaphadhikya and Balawan Rogi - Doshas are to be expelled by Vamana and Virechana. Before performing the Vamana Karma Anoopa and Jalaja Mamsa Rasa and Swedana are to be given. After this Pathya Ahara, Vihara and later followed by Shwasa Nashaka Dhooma, Avaleha etc are to be administered.

If the patient is Vatadhikya and Durbala, Baala, Vruddha Rogi- Vata has to be alleviated by Vatanashaka Dravyas, Tarpana, Sneha, Yusha, Mamsarasa and Brumhana Chikitsa should be administered. Shwasa Rogi having Ruksha Shareera, suffering from Shushkata in Uras, Kantha and Talu has to be treated by Ghrita.

Doshanubandhi Shwasa Chikitsa-

In case of Vatanubandhi Shwasa, the Ghrita prepared by Mamsa of Shasha, Shallaka etc. or Ghrita prepared by Pippali, Mamusa and Shonita has to be administered. In case of Vata-pittanubandha Shwasa, Shali Odana prepared with Suvarchala Swarasa, Dugdha, Ghrita and Trikatu has to be administered. Gangadhara commented on this Suvarchala Swarasa, Dugdha, Ghrita can be administered separately with Trikatu Churna after food. In case of Pittanubandhata, Utarika Gritha are to be administered. In case of Kapha-pittanubandha Shwasa, Shirisha Pushpa Swarasa or Saptaparna Swarasa, mixed with Pippali Choorna and Madhu has to be administered.

Shwasa Chikitsa according to Doshas-

Acharya Charaka explained a special line of treatment in managing the Shwasa Rogi with respect to
Doshas like Vatakruddha Kaphahar and Kaphakruddha Anilapaham. Both the principles can be used differently according to the condition, but treatment aiming towards single Dosha must not be performed i.e. Vata Karaka, Kapha Karaka, Vata Shamaka or Kapha Shamaka, in indispensable condition to implement one amongst the above four. It is superior to go for Vatashamaka Upakramas.

**Shodhan Chikitsa in Tamaka Swasa-**

**Snehana and Swedana**

In this context Snehana refers to external oleation. Sarshapa Taila is mixed with salt and applied on the skin externally as well. Swedana by Sankara, Prastara, Nadisweda is recommended. Thick and sticky mucus which is inspissated in the Pranavaha Srotasa get dissolved by Snehana and Swedana. The manner in which the snow lying on hilly forest melts by the heat of sunrays, the thick sticky mucus in the Pranavaha Srotasa get liquefied by the heat of Swedana, so that it comes out easily (expectoration occurs).

When the obstruction due to Kapha (thick mucus) is cleared in the passage, the trapped air also get eliminated, the functions of Vata returns to normal course and free movements of air takes place and this gives comfort to the patient. The passage of Pranavaha Srotasa (bronchi and bronchioles) get relaxed and dilated by Snehana and Swedana procedures which act as bronchodilator. Swedana is contraindicated in patients suffering from Swhasa associated with profuse hemorrhage, burning sensation, profuse sweating, and loss of weight and strength and in case of pregnancy.

**Vamana**

Almost all the Shwasa Rogas are predominant of Vata and Kapha, hence to eliminate the sticky mucus from the Pranavaha Srotasa, Vamana is induced. Almost all the ancient authors and commentators’ opinion is to induce Mridu Vamana in Shwasa Roga. At the same time Teekshna Vamana is contraindicated. Commenting on the same, Dalhana says that the process of Vamana should be conducted in such a way that it should not produce any complications (Apeedakaram), and also it should not cause aggravation of Vata (Vata Avirodhi Yat). Hence Mridu Vamana is ideal in Shwasa Roga. With reference to the earlier discussion, apart from pulmonary diseases some of the heart diseases are also included in Shwasa Roga. Considering process of Vamana is not safe in cardiac diseases, probably Teekshna Vamana is contraindicated, therefore Mridu Vamana is recommended.

Before Vamana procedure, Snehapana of increasing order is not advised as followed in routine, instead patient is given Kapha aggravating food such as fish soup, pork soup or rice mixed with yoghurt (Dadhisaara) in large quantity, and then Vamana is induced with Pippali, Saindhava and honey. Here Madanaphala is not recommended to induce Vamana. The combination of Pippali, Saindhava and Madhu helps to induce Vamana in milder form that gives desired effect in Tamaka Shwasa. Acharya Chakrapani has advised other method of conducting Vamana with the name as Ullekhana in the same context. Salt mixed water is recommended to drink full stomach, to induce Vamana. Vamana helps in eliminating Kapha Dosha collected in bronchi; this statement seems to be embarrassing, but any emetic drug given in sub emetic dose increase the bronchial secretions by producing less tenacious sputum so that it becomes easier to expectorate. In this way Vamana helps in expulsion of thick sputum that facilitates free movement of air and gives comfort to the patient.

**Virechana**

Virechana is important therapy in Shwasa, particularly in Tamaka Shwasa (Tamaketu Virechanam). Acharya Sushruta recommends Mridu Virechana in Shwasa with the drugs that have Vatahara and Kaphahara properties. As the main seat of Shwasa is Pitta Sthana, Mridu Virechana is beneficial to eliminate the Doshas from the body (Kapha Vataatmakavetau Pitta Sthana Samudhhbhavava)
Acharya Charaka has given the Chikitsa Sutra of Tamaka Shwasa as Vata Sleshma Hareyuktum Tamaketu Virechanam\textsuperscript{36}. He said that the intelligent physician should advise purgative and emetic medications with drugs alleviating Vata and Kapha to patient suffering from cough and cracked voice (hoarseness) and to asthmatics. Acharya also quotes that the Kapha Dosha obstructs the Marga (passage) of Vayu and the obstructed Vayu takes the Pratiloma Gati (Vimargagamana) and Virechana drugs have a quality of Vatanulomana, Kaphavatagtha Karma, Ushna Veerya may be more beneficial in the condition of Shwasa\textsuperscript{37}. Virechana drugs remove mainly Kapha and Pitta Doshas and make Vata in Anulomana Gati. Arundatta comments that when the normal course of Vayu is obstructed by Kapha, it will get aggravated i.e. Vimargagamana of Vayu due to the Avarana of Kapha.\textsuperscript{38} Hence the treatment should have the quality of Kaphaghna and Vatanulomana and Virechana removes Kapha, also corrects the direction of Vayu to set it on normal course. Acharya also quotes that the origin of Shwasa Roga is Pittasthana also narrated as Adhoamashaya\textsuperscript{39} and Virechana purifies the Pitta Sthana which in fact is the site of origin of Shwasa Roga. Hence, it acts as a curative measure.

**Dhoomapana (Therapeutic smoking)-**

Even after Vamana the deep seated sticky mucus is not completely eliminated from the bronchi, Dhoomapana is indicated with the following drugs. The drugs and the procedure mentioned in Kasa for Dhoomapana are followed in Shwasa Roga too\textsuperscript{40}. In the process of Dhoomapana the fumes of medicinal drugs are inhaled by the patient through the mouth and delivered the drugs to the site of action directly into bronchioles.\textsuperscript{41} Therefore the action of the drug will be very quick.\textsuperscript{42} The drugs used in Dhoomapana possess Teekshna properties, so that they help in Chhedana of Kapha situated in the lungs. In this context Chhedana means the drugs which root out Kapha Dosha that has stuck in the Pranavaha Srotasa. Similarly the drugs mentioned for Dhoomapana act by liquefying the thick and tenacious sputum situated in the lungs (Sthira and Ghana Kapha), and facilitates its removal by coughing which gives comfort to the patient called as Vairechanika Dhooma\textsuperscript{43}. The Chhedana of Kapha in the lungs is compared to mucolytic action.

**Drugs used in Dhoomapana**

1. **Haridra** leaves, Eranda roots, Laksha (lack), Manahshila (realgar), Devadaru, Haratala and Jatamansi are powdered together and sticks (Vartiï) are prepared, smeared with Ghee and advised to smoke.

2. **Padmaka**, Guggulu, Shallaki, Agaru, Shyonaka etc are also used for Dhoomapana.

**CONCEPT OF RASYANA**

Rasayana Chikitsa is a disease modifying and prophylactic therapy, which aims at fortifying the ultimate natural resistance of an individual i.e., the innate immunity. The concept and practical implication of the Rasayana has been well elucidated by various Ayurvedic classics. Rasayana therapy has multidimensional and positive impact on the health of an individual. It promotes health, prevents disease, delays ageing & develops youth. Rasayana has its effect both on mind and body. The Rasayana Oushadha performs these functions by improving the qualitative nourishment to the Rasadi Sapta Dhatus, ultimately rendering immunity to the body. While different classics explained the general adaptability of Rasayana, Acharya Susruta elucidated the disease specific Rasayana therapies under the name of ‘Naimittika Rasayana’, which performs the actions of both Samsamana and Samsadhana, thus combating the disease on the whole.

**Conclusion**

Hence Childhood asthmatic children can be treated effectively by using the Ayurvedic principles. However severe cases of Asthma, or acute in chronic presentations, status asthmaticus like conditions are certain limitations. Ayurveda also provide an effective treatment for reversal of bronchospasm which is quite
useful in moderate and mild form of Asthma. Meanwhile identification of Dosha dominance is quite important before initiating the treatment.

References
17. Sagar Bhut, Dr. Mukesh Auropremi and Dr. Sunil Changle, A review article on Tamaka Shwasa w.s.r. to Childhood Asthma, World Journal of Pharmacy and Pharmaceutical Sciences, Vol 6, Issue 8, 2017.
51/4, p.761-763.


