



EXPLORING THE SCIENCE BEHIND TRADITIONAL GENERAL MANAGEMENT OF ASTHMA IN KERALA

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ABSTRACT

Bronchial Asthma is a major noncommunicable disease, affecting people of all age groups. Inflammation and narrowing of the small airways in the lungs cause Asthma, symptoms of which can be any combination of cough, wheeze, shortness of breath, and chest tightness. These symptoms are intermittent and are often worse at night or during performing exercise. Triggers vary from person to person and may include the following viral infections, dust, smoke, fumes, changes in the weather, grass, pollen grains, animal fur, feather, strong soaps, and perfumes. In India, approximately the condition is seen among 15 million people. A study conducted within the state of Kerala revealed a higher percentage of people, within the state suffering from the disease. In Kerala, Bronchial Asthma was prevalent in ancient times as it is today. This work is inspired by the thought to connect the treatment used by traditional physicians of Kerala with the procedures detailed in the Ayurvedic scriptures and justify it with their scientific rationale. The writing would detail the procedures administered along with the internal medication in ancient times and how it is scientifically connected, with the general management of Bronchial asthma mentioned in Ayurvedic treatises.

Keywords: Bronchial asthma, Ayurvedic treatises,

INTRODUCTION

The word 'Asthma' originated from the Greek word 'Azein' which means difficulty to breath. Asthma is a disease of the respiratory system in which the airways constrict, become inflamed, and are lined with excessive amounts of mucus, often in response to one or more triggers, such as exposure to an environmental stimulate (or allergen), cold air, exercise, or emotional stress. The global prevalence of asthma is anticipated to be approximately 4.5 per cent. There are about 334 million patients with asthma in all age groups, across the world. The prevalence of asthma has increased over time and an additional 100 million people worldwide are expected to develop asthma by the year 2025. In the Indian study on the epidemiology of asthma, respiratory symptoms, and chronic bronchitis in adults, a survey was conducted in two phases across 16 centres in India, the prevalence of asthma in adults was 2.05 per cent, with an estimated burden of 17.23 million. In ayurveda, the word 'Swasa'¹ refers, to breath, and *Swasa Roga* indicates, any difficulty or discomfort with breathing. It is seen to be caused by the abnormal movement of *Vata* in *Pranavaha srotas*. Ayurveda broadly classified *Swasaroga* into 5 categories namely *Kshudraswasa*, *Chinnswasa*, *Tamakaswasa*, *Mahaswasa*, and *Urdhwswasa*². Tamaka Shwasa is a wide term that incorporates a lot more sicknesses where dyspnoea is the prevalent symptom. Yet at the same time, we can correspond Bronchial Asthma to Tamaka Shwasa. This classification is based on the difference in rhythm or pattern of breathing. By analyzing the causes of *swasa roga*³ which is mentioned in Ayurveda, it is evident that all the causes are *Vata Kapha Vardhaka*. Following are the reasons for *Swasa roga* such as continuous exposure to dust or wind, staying in cold places, excessive exercise, excessive indulgence in sexual intercourse, prolonged intake of dried food items or dam fish, food items which are made out of grinded flour, Urad dal, curd, etc. Most of the *Nidanans* are *Kapha Vardhaka* and these factors will vitiate the *kapha* which in turn ob-

structs the normal passage of *Vata* in *pranavaha Srotas*, and these leads to the occurrence of *Swasa Roga* in a person⁴.

Aims and Objectives: Even though the *Swasaroga* was difficult to manage, expert traditional physicians of Kerala treated the condition of asthma effectively. The details on the procedures and medication for effective management of *Swasaroga* and the scientific rationale for adopting these treatments are further explained in this article.

Materials and Methods: Through collation of information from expert Ayurvedic practitioners and traditional *Vaidyas* along with referencing various Ayurvedic treatises, are used for this article.

Management of Bronchial Asthma through the traditional system of medicine

Management is classified into *Vegakalina* (During the asthmatic attack) and *Avegakalina* (In the absence of attack), *Vegakalina Chikitsa* removes the block due to obstruction of *Kapha Dosha* and relieves the spasmodic constriction in the bronchial lumen to maintain the respiration and to stabilize the patient vitally. *Avegakalina Chikitsa* prevents recurrent episodes and improvement in body strength, immunity, and quality of life. During the asthma attack, our traditional physicians suggested the application of *Thavidu kizhi* and *Muringayila Kizhi*, which resulted in quick relief by subsiding the symptoms. Let's try and understand how the above-mentioned treatments result in subsiding the complaints. Ayurvedic scriptures emphasise the application of *Swedana*³ procedures as the first line of treatment to subside ailments. Prior to the *swedana* procedure, warm oil mixed with rock salt should be applied over the chest region. Through this procedure *Grathitha Kapha*(obstructed *kapha*) should be eliminated from the *Pranavaha srotas*, so that easy movement of *Vata* will be facilitated. Charaka specifies that either *Nadi Sweda*, *Prasthara*, or *Sankara sweda*⁴ can be used in the condition of *Swasa Roga*.

Thavidu kizhi and Muringa ilakizhi comes under the Sankara sweda.

Thavidu Kizhi:

Thavidu or bran is one of the by-products of rice husking. With the advent of modern paddy threshing machines, more bran was started to be obtained. 100 kg of paddy yields 73 kg of rice and 22.8 kg of husk. It contains 21 % oil. In ancient times bran was easily available in each home and hence, old physicians recommended it to be used by their patients even for treatment at home in preparation for *kizhi* for *swasa roga*.

Procedure and science behind the usage of Thavidu kizhi in Shwasa Roga:

Bran should be fried on a mild fire. And the hot bran should be made in to a *Kizhi* form. After the application of oil which is having *Ushna guna* added with a pinch of rock salt (*Karpooradi tailam* can be used) over the chest region of the patient, the prepared *kizhi* should be applied with minimum pressure. This will give immediate relief from the discomfort due to Bronchial Asthma.

Procedure and science behind the usage of Muringa ilakizhi in Swasa Roga

Moringa oleifera or *Shigru*⁵ is a graceful small tree. It is grown in tropical and subtropical regions throughout the world. This drug will come under the *swedopaga gana*. *Swedopaga* means that promotes or acts as an adjuvant to enhance the sudation process. The drug which comes under the *Swedopaga gana*⁶ has diaphoretic action followed by hot and channel clearing and softening the channels. Due to these particular properties, *kizhi* with *Moringa oleifera* can easily remove the obstruction of *Kapha in Pranavaha srotas*.

Procedure

Dry *Moringa* leaf should be fried on a mild fire. And this content should be made into a *kizhi*. Prior to the application of this *kizhi*, lukewarm oil added with rock salt should be applied over the area.

Swedana is capable of penetrating the micro channels where it activates the sweat glands to produce more sweat. After dilatation of micro channels, *Lakhu Guna* of the drug enabled them to act on the

stagnated *Kapha*, remove the stagnation, making the sticky contents mobile and direct towards the *Koshtha* or excrete them through micro pores of the skin in the form of sweat.

Smoke inhalation of Dhathura flower or fruit⁷

For immediate relief from the symptoms of bronchial asthma, especially if the patient is unable to sleep at night due to breathlessness or the patient is not having the ability to withstand the discomfort due to poor strength of body, a physician can advise the patient to inhalation of powdered *Dhathura* flower or fruit

➤ Procedure: Dried *Dhatura* flower or the fruit should be powdered, and this should be anointed with ghee and applied over a clean cloth. This should be burned, and the fumes should be inhaled.⁸

Dhathura plant contains Stramonium. Stramonium acts by paralysing the parasympathetic nerve endings even when used as fumes. So, in bronchial asthma, it will normalise the bronchial spasm.⁹ There are different medicines like *Kanakasavam*¹⁰, which contain *Dhatura* in the large amount. Using these medicines at proper times, administered in proper dosage will act as a good remedy to alleviate the condition.

Vasa (Adethoda vasica) will provide a sedative effect, and also has mucolytic, expectorant, and bronchodilator action, so it is greatly used in respiratory illness. By analyzing the condition of the patient, It can be administered in different forms such as *Arishta*, *swarasa*, or combined with any other medicine.

Dashamooladi peya (water processed with *Dashamoola* can be administered)¹¹

Ayurveda specifies that all the medicines, foods, and drinks consumed by a *shwasa rogi* should be *Kapha Vatahara* in nature so that the obstructed *Kapha* can be eliminate and easy movement of *Prana Vata* can possible. The same rule is followed by the ancient physicians.¹²

Bharani soup: If the *Shwasa Rogi* is very weak, or if he cannot withstand the potency of a medicine, or if the disease is caused due to injuries, *Bharani* soup can be administered.

- **Method of preparation of Bharani soup:** 4 to 5 chicks' meat should be cleaned and fill it with cumin seeds and steamed in the idly pot. This steamed meat should be squeezed, and the extract should be taken. This has to be given to the patient for one or two weeks. It will improve the overall strength of the patient.

Honey mixed with Ginger juice¹³ can be given to the patient. This will help to eliminate the obstructed *Kapha* and alleviate the symptom.

The white portion of peacock feather¹⁴ should be made into powder form and this should be consumed with honey, betle leaf, or with *Pippali choorna*.

Bhasma of porcupine quills with honey can also be given.¹⁵

Kombanjaadi gulika¹⁶ is also an effective medicine that contains the horns of five animals.

All the above-mentioned 3 medicines are calcium channel blockers. Calcium channel blockers allow blood vessels to relax and open. So these medicines might in fact play a beneficial role in preventing bronchoconstriction or inducing bronchodilation in asthma.

Muyal lehyam: In the context of *Swasa Roga*, *Sasa Mamsa*¹⁷ (Meat of rabbit) is recommended as one of the remedies to cure the condition. The *lehya* prepared using the meat of rabbits is readily available for purchase in specific ayurvedic medicinal outlets. Rabbit meat turned out to contain a substance called kitotefin compounds. This compound kitotefin serves to stabilize cell membranes. Asthma, which occurs due to allergies can be prevented by the presence of kitotefin in rabbit meat and it also helps with the contraction of airway smooth muscle. Some other important medicines are,

- *Balajeerakaadi kashayam*¹⁸
- Intake of the leaf of Vallippala (*Tylaphora indica*) continuously for 6 days in the morning before breakfast. can give good relief from the condition.¹⁹ There was a study conducted by Dr. Shivapuri and he published an article on the effect of *Tylaphora indica* on Bronchial asthma. Dr. Shivapuri mentioned some temporary side effects of *Tylaphora indica*. The usage of this drug can

cause symptoms like a slightly sore throat, nausea, vomiting, or loss of partial taste for salt in some patients. If vomiting occurs further repeated usage of the leaves should be avoided on the same day. Further dosage of the medicine needs to be continued the next morning. All these symptoms will subside, upon stopping the usage of the drug. It is found to be effective in treating the early stages of asthma. This drug can pacify vitiated *Vata and Kapha*, and there by relieving the constriction of *Pranavaha srotas*.

Horse gram soup²⁰

It is hot in potency so that it can act on the pathogenesis of bronchial asthma.

Dos and Don'ts: Use Old rice, *Mudga* (green gram), *Kulatha* (Horse gram), *Patola* (snake gourd), Garlic, Turmeric, Ginger, Black pepper, Lukewarm water, Goat milk, Honey, in the diet in different forms. Intake of Heavy, Cold diet, *Masha* (black gram), Deep Fried items, Mustard leaves, Dam Fish, Sweets, Chilled water, Stored food items, Curd, suppression of natural urges, excessive physical exertion, exposure to cold & humid atmosphere, smoke, dust, Fumes, pollutants, and pollens can further vitiate the condition of Bronchial asthma.

CONCLUSION

Even though Bronchial asthma is not an easily curable disease, it can be managed well or subsided by logical administration of treatment protocols. There are multiple procedures explained in ayurvedic treatises which have been tested and proven to be effective methods in treating Bronchial asthma. If closely analyze it is evident the traditional *Vaidyas* have followed the scientific approach mentioned in ayurveda treatises for curing the condition. However, the effectiveness of the treatment is solely depending upon the expertise of the physicians in diagnosing the condition of the patient correctly and there after deciding the treatment method.

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