

CRITICAL EVALUATION ROLE YOGA IN THE MANAGEMENT OF TAMAK SHWASA(BRONCHIAL ASTHMA)

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ABSTRACT

Ayurveda is the base of all medical sciences. History of medicines reveals the fact that *Ayurveda* has made enormous contributions to the mankind. Asthma is one of the most prevalent chronic health conditions among children and adults. It is really curse for human being as it is a chronic disorder with longstanding duration requiring lifelong management. If the patient of *Tamaka Shwasa* drops the treatment, disease aggravates again with more severity. The origin of *Tamaka Shwasa*(bronchial asthma) from *Amashaya*(stomach) has a great importance in the light of modern medicine where the gastro-esophageal reflux has an etiological role in bronchial asthma. Involvement of three *Srotas* i.e. *Pranvaha*, *Udakavaha* and *Annavaha* with their specific clinical features shows the broad approach to

disease. Asthma is an extremely troublesome condition, leaving the person gasping for breath and in some cases it can have dangerous consequences as well. Most people who suffer from asthma are asked to use inhalers and may be prescribed bronchodilators. But just because you are an asthmatic doesn't mean that you need to be on medication to survive. *Pranayam*(breathing exercise), *Yoga* postures can help beat the symptoms and make your lungs stronger. People with asthma may find some forms of physical activity challenging due difficulty in breathing. But *Yoga* is an all-around stress-relieving technique with gentle stretches and a slower pace than other workouts. There are so many *yoga* procedures that can help the people to overcome the challenges of asthma.

KEYWORDS: *Tamaka Shwasa*, bronchial asthma, *yoga*, *pranayam*, *Srotas*.

INTRODUCTION

Yoga is one of the oldest and most popular systems of knowledge in the treasure of Indian literatures. In the present scenario *Yoga* draws the attention of a large group of people due its positive effects on health and diseases. In scientific terminology, *Yoga* is a way of life which balances, harmonizes or disciplines every aspect of life i.e. physical, mental, social or spiritual.

In *Bhagavad Gita*, Lord *Keshava* explained three types of *Yoga* to *Arjuna* i.e. *Dnayana*, *Karma* and *Bhakti Yoga*. *Yoga* is a condition in which the biggest problem (*Dukha*) can't mobilize a person. Balance of mind in both favorable and unfavorable result is *Yoga*. When intellect of a person remains in the state of *Yoga*, he becomes free from the result of all good or bad works, thus *Yoga* is an art of doing work without worldly bondage.

As we know that air having some fantastic properties like absorbing property. It absorbs certain things as moisture, fragrance and odor. When air is kept in the body for a longer time, it absorbs the impurities of the system and when it is expelled with a force it carries those inner impurities out. Further, when external pressure is given it maximizes the inner penetration of the air and enables it to rub, activate and give inner massage to the body cells and organs.

Having asthma means your lungs are more sensitive to things like cold or hot temperatures, dry air, allergens, and pollution. When you're not exercising, you probably breathe through your nose. Breathing through your nose moistens, warms, and filters the air you breathe before it gets into your lungs. But while working out, you probably breathe through your mouth. That can be tough on your lungs and can trigger asthma symptoms. It is better to pick an exercise that is not too difficult for you because trying an exercise that you are not in shape for may also trigger asthma symptoms.^[1]

Review on *Tamak Shwasa*

A type of *Shwasa* in which patient feels excessive difficulty and drowning in dark is known as *Tamak Shwasa*. It is a disease in which patient experience severe symptoms of respiratory distress with extreme weakness, fatigue and mental glooming.

The name of *Tamaka Shwasa* is due to the fact that, the symptoms or attack of this disease precipitates at night and also during the time of attack, the breathing difficulty is so severe that patient feels entering into the darkness (*Tama Pravesh*).

Both the *Vata* and *Kapha* have been considered to be the chief *Doshas* involved in the pathogenesis of *Tamaka Shwasa*. Among the five types of *Sharira Vayu – prana Vayu* get vitiated during this disease.^[2]

When *Vata* is obstructed by vitiated *Kapha*, it get reverses and affect the *Prana vaha Srotas* and producing Dyspnea associated with wheezing sound, Cough, labored breathing etc. Due to constant coughing patient become unconscious, greatly distressed and feels comfort for a while when the sputum being expectorated. His throat is severely affected, and speaks hardly. He feels discomfort in lying down position, so unable to get a sleep. He feels comfort in sitting or in propped up posture. He likes to take hot things only. His eyes are protruded, forehead is covered with sweat and he feels a great distress all the times. His mouth becomes dry. These symptoms are intensified by cloudy, humid and cold weather, easterly winds, foul smelling and by taking *Kapha* increasing things. The *Tamaka Shwasa* (Bronchial Asthma) is *Yapya*. It is curable if it is of recent origin.

Santamaka and Pratamaka Shwasa^[3]

In *Tamaka Shwasa*, two allied conditions, i.e. *santamaka* and *pratamaka* have been considered by *Acharya Charaka*. These are allied because the clinical manifestations are very much common. *Susruta* and *Vagbhata* only mentioned the name of *Pratamaka* which includes the clinical manifestation of *santamaka*. However, a few differentiating features have been furnished for the sake of differential diagnosis, as follows.

Santamaka Shwasa

Santamaka Shwasa is aggravated in the night and patient feels relief with cold in contrary to *Tamaka Shwasa*, as the later is aggravated with cold and usually the attacks are precipitate early in the morning. The patient feels to be drowning in the sea of darkness, so it is known as *Santamaka Shwasa*. *Sheetopachara* is fruitful because of the presence of *Pitta dosa* in this disease.

Pratamaka Shwasa:

In this clinical status a patient is overwhelmed by fever and fainting in addition to other symptoms of *Tamaka Shwasa*. It is caused by *Udavarta*, dust, indigestion, old age and due to suppression of urge. According to *Chakrapani* though the *Kapha* and *Vata* are predominant *Dosas* in *Tamaka Shwasa*, *Pitta* is equally vitiated in this allied condition which is responsible for the above symptoms.

***Samprapti of Tamaka Shwasa*^[4]**

Acharya Charak described the detail *Samprapti* of *Tamak Shwasa*. In *Shwasa roga*, the basic pathogenesis is initiated by the diets and habits which provoke *Kapha*. Vitiating *Kapha* in the *Pittasthana* (Lower part of the *Amashaya*) circulate in the body as *Ama*. *Ama Dosa* can also circulate in the body following certain diseases like *Jwara*, *Agnimandya*, *Amatisara* and *Visuchika*. On the other hand aggravation of the *Vata* either by the diet and habits or by the systemic diseases like *kshaya*, *urakshata*, *pandu* or *pratisyaya* also makes the triggering effect for the *Pranavaha sroto vaigunya* along with vitiated *Kapha* or *Ama*. *Pranavaha Sroto vaigunya* can also directly result from suppression of natural urges like *Udgara*, *Aadhovata* and *Chhardi*. Physical exertion can also contribute to the *Pranavaha Sroto vaigunya*. The functional derangement of *Pranavaha srotas* will be accentuated to a fully fledged *sroto dusti* by the interaction of any of the precipitating causes like dust, smoke, wind, *marmaghata* and use of excessive cold water. Once the *Srotodusti* is occurred the *Prana Vayu* gets abnormal by the *Sanga* and *Vimargagamana*. This in turn is manifested as *Shwasa roga*.

The vitiated *Vata* is *Pratiloma* (reverse) in its course in *Tamak Shwasa*, which reaches the respiratory tract, induces airway obstruction and due to excess bronchial secretion interfaces with the flow of the air giving rise to *Gurghuraka* (wheezing sound). Hence there is a great parlance of pathogenesis between ancient and modern concepts. Here the vitiated *Prana Vayu* produces bronchospasm and the vitiated *Kapha* makes to swelling of the mucous membrane and excessive secretion of mucous, which takes place in *Pranvaha Srotas*.

Role of yoga in the management of *Tamak Shwasa*

There are few basic breathing techniques and yoga postures which help in oppose the asthma attack or symptoms more effectively. According to *Yoga-sutra* of *Patanjali*, *Pranayama* is a technique to change or control the normal breathing process and to make the inhalation, retention and exhalation deep (*Dirgha*) and slow (*Sukshma*), which follows after securing that steadiness of posture or seat.”

Pranayama is the control of the *Prana* and the vital forces of the body. It is regulation of the breath. The aim of *Pranayama* is the control of *Prana*. It begins with the regulation of the breath for having control over the life-currents or inner vital force. In other words, it is the perfect control of the life-currents through control of breath. Breath is external manifestation of the gross *Prana*.^[5] A correct habit of breathing must be established by the regular practice of *Pranayama*. If one controls the breath or *Prana*, the mind also is controlled. He who has controlled his mind has also controlled his breath. If one is suspended, the other is also suspended. If the mind and *Prana* are both controlled one gets liberation from the round of births and deaths and attains immortality.^[6]

There are three types of *Pranayama* i. e. *Puraka* (Inhalation), *Kumbhaka* (Retention) and *Rechaka* (Exhalation). During breathing for *Pranayama* inhalation (*Puraka*) stimulates the system and fills the lungs with fresh air; retention (*Kumbhaka*) raises the internal temperature and plays an important part in increasing the absorption of oxygen; exhalation (*Rechak*) causes the diaphragm to return to the original position and air full of toxins and impurities is forced out by the contraction of inter-costal muscles. These are the main components leading to *Pranayama* which massage the abdominal muscles and tone up the working of various organs of the body. Due to the proper functions of these organs, vital energy flows to all the systems. The success of *Pranayama* depends on proper ratios being maintained between inhalation, exhalation and retention. It does the internal purification.^[7] *Pranayama* and *Asanas* have corrective, curative and strengthening effects on *Pranava Srotas* and its *Moolsthan* i. e. Lungs and the bronchiole linings. *Pranayama* along with other *Yogic* practices is useful in the patients of bronchial asthma to reduce the weekly number of attacks, requirement of drug, and to increase in PEFV.^[8] It also shows bronchial hyper responsiveness and also significant improvement in the symptoms of the patients of bronchial asthma.^[9] *Pranayama* stimulates the sympathetic nervous supply of respiratory system resulting in relaxation of constricted airways, which increased the PEFV FEV₁, and FVC.^[10]

Various Asana helpful in Tamak Shwasa

Ekpada Uttanasana-

Ekpada Uttanasana is perfect for people with asthma because it helps the lungs to open up and oxygenates the entire respiratory system. This *asana* also makes your hips more flexible, improves digestion, tones the muscles around your abdomen and enhances the

working of the glands related to libido. *Ekpada uttan asana* is also known to be very effective against menstrual disorders.

Tarasana

Tarasana is aimed at strengthening the muscles of the chest while strengthening your lungs. Due to the movement of your hands, while performing this *Asana*, the muscles around the chest area become toned and our bronchioles and lungs become strengthen. This *Asana* also helps in the development of chest and relieves pain around the back and the shoulders.

Yoga Mudra

Yoga Mudra helps expand the chest and exercise the lungs. Because of the bending action of this *asana*, blood from the lower portions of the body rush upwards and helps massage the lower part of the lungs, bronchioles and nourishes the nerves of that area. This helps strengthen your lungs and overall respiratory system.

Ushtrasana

Ushtrasana known as the camel pose, this *asana* is exactly what the doctors recommend for asthma patients. This *Asana* helps open up the chest and improves breathing. It activates the facial tissues, the nasal passage, the pharynx, and stimulates the nerves of the respiratory system. This *Asana* also helps correct disorders of the neck, shoulders, spine, and helps the sensory organs function optimally.

Simhasana

Simhasana is known for its ability to help relieve throat problems, voice disruptions and tonsillitis. *Simha asana* also helps improve one's respiratory system as it activates the larynx, trachea and lungs. It also activates the thyroid gland, allowing it to functions better and making your entire body healthy.

Sarvangasana

Sarvangasana is known for its ability to activate and relieve thyroid problems. But apart from that it is a great for asthmatics. *Sarvangasana* is known to help improve the circulatory system, improves supply of blood to facial tissues, relieves constipation, gastrointestinal problems and strengthens the entire body.

Matsyasana

Matsyasana is Also known as the fish pose, this asana helps to improve circulation to the chest, face, neck and glands present in those areas. It also helps relieve symptoms of back pain and tones the muscles of the chest, back, neck and lengthens the spine. It also helps correct disorders of the respiratory system.

***Uttanasana* (Standing Forward Bend Pose)**

The *Uttanasana* is another good yoga pose for treating the symptoms of asthma. The pose also has many health benefits for the stomach, by helping reduce constipation, cramps and bloating. Apart from easing symptoms of asthma, insomnia and menopause, the *Uttanasana* Stretches hips, calves and hamstrings, strengthen lower body, including thighs and knees, Strengthens the spine, Reduces stress and anxiety, and Promotes better neural activity.

***Shavasana* (cadaveric Pose)**

Most yoga routines end with the Corpse pose, and our routine is no different. *Shavasana* or the Corpse pose helps you recoup all that spent energy and is one of the best restorative yoga poses around. It has many uses, and one of them has potential benefits for asthmatic patients. It is useful in control and reduces the symptoms of asthma. It helps reduce constipation and treats indigestion. *Shavasana* helps to ease stress and anxiety and sharpens our focus. It is good for boosting blood circulation and improving nerve health.

DISCUSSION

Yoga is the medicine for nearly every problem. As we practice yoga, it does not only help you to improve your physical body but also helps in maintaining our inner peace and relaxing your mind. Thus, there is nothing that yoga will not help. Moreover, yoga is not just a one day practice; it's a lifelong commitment. The more you practice yoga, the more you are benefited. If you practice yoga daily you will be enjoy a peaceful and healthy lifetime. In the present *Yoga* has just become a type of physical practice but it is lot more.

Pranayama (yogic breathing exercises) have been associated with significant improvements in the respiratory function, especially with the measure of vital capacity. Improvements were seen in healthy individuals, asthmatics, and chronic smokers. The respiratory changes with yoga were also compared with a regular exercise program in which the yoga group improved in maximum oxygen uptake and decreased perceived exertion after maximal exercise testing. The study by Arambula showed reductions in respiratory rates from an average

twelve breaths per minute to five breaths per minute during meditation, with a predominance of abdominal/diaphragmatic breathing.^[11] *Yoga* has also been used to provide relief from stressful psychological states. Rao demonstrated significant reductions in anxiety, depression, perceived stress, and cortisol levels in 88 breast cancer subjects practicing Yogic meditation compared to controls.^[12]

Yoga is emerging as a widely practiced complementary and integrative therapy. This paper brings to light the utility of *yoga* as a non-invasive means of treating many respiratory disorders and improving the overall quality of life. Its efficacy in various respiratory disorders has been described in this review; however, these studies had certain shortcomings. These reflect areas where significant gaps in research exist and provide direction for those wishing to exploit the great potential that this field promises.

The goal of this review paper was to evaluate the credibility of *yoga* as a complementary treatment and management modality in different respiratory disorders. Although our review provided some insight into the benefits of *yoga* in various respiratory disorders, most of the studies reviewed were only in the initial stages of understanding the clinical (or symptomatic) benefits of *yoga*. Furthermore, most of these trials had inadequacies in their study designs. Therefore, until studies involving double-blinding and randomization with larger samples are employed, these benefits cannot be substantiated to draw proven conclusions of the benefits of *yoga*. Once that has been achieved; however, the next phase would be to observe and understand the actual physiological changes and the modifications in pathology occurring with the practice of *yoga*. Until that time, a discussion or classification of the benefits of *yoga* would be highly speculative. However, it is of utmost importance to understand these shortcomings in the study designs used till date, for guiding investigators wishing to pursue this cause further. A critical analysis of the studies reviewed is presented.

CONCLUSION

The practice of *yoga* and meditation demonstrates statistically encouraging physiological and psychological improvements in the aforementioned neurological disorders. However, there were certain flaws and inadequacies in the study designs employed to evaluate the same. A critical analysis of these studies is presented.

With the aim to focus attention on this widespread yet largely unexamined treatment modality, this paper seeks to provide direction and support for further research necessary to validate yoga as an integrative, alternative, and complementary therapy.

Our review of medical literature found that yoga has been widely used for health promotion and disease prevention and as a possible treatment modality for neurological disorders. Yoga has also been used as an adjunctive treatment modality for carpal tunnel syndrome, multiple sclerosis, epilepsy, post-stroke paresis, and neuropathy due to type-2 diabetes. Ongoing research is underway for treatment of fibromyalgia, headache, migraine, Parkinson's disease, chronic back pain, and many other disorders. However, most of the studies reviewed had inadequacies in their study design, especially with regards to the sample sizes and the employment of controls, randomization, and double blinding. Efforts must be made by future investigators to cover these gaps in research to be able to draw more meaningful conclusions about the benefits of yoga. Efforts must also be made to translate and disseminate research findings in yoga so that the best therapy can be paired with its' respective disorder. There is also need to find out the true value of yoga in neurological disorders and other disciplines of medicine.

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