



Traditional yoga for bronchial asthma: A review

Anshu^{1*}, Pintu Kumar Mahto², Ramesh Kumar³

¹ Scholar, Department of Pulmonary Medicine, AIIMS Rishikesh, Uttarakhand, India

² Ph.D. Scholar, Department of Yoga Sciences, University of Patanjali, Haridwar, Uttarakhand, India

³ Ph.D. Scholar, Department of Pharmacology, AIIMS Rishikesh, Uttarakhand, India

*Corresponding Author: Anshu

Abstract

Yoga is a traditional form of meditation created by ancient Indian saints. They practised yoga as a means of managing their mental and physical activities. Yoga in everyday life is a practise technique that consists of eight levels of development in the domains of Physical, mental, social, and spiritual wellness is all important. When the body is physically healthy, the mind is healthy as well. The mind is clear and concentrated, and stress is under control. Yoga balances body, mind, consciousness, and spirit. Asthma is a prevalent psychosomatic ailment. Asthma is a worldwide health concern due to the high morbidity and mortality rates linked with the condition. Bronchodilators cause side effects and are transitory. This review examines the efficacy of Yoga in bronchial asthma.

Keywords: asthma, pranayama, breathing exercise, yoga therapy, yoga

Introduction

Yoga, an ancient Indian physical and meditative practise, is gaining popularity around the globe. Yoga is the process of improving oneself by calming the mind [1]. Since the beginning of time, the spiritual heritage of India has included the practise of yoga, which has its origins in the Indian philosophical tradition [2]. Traditional yoga's ultimate goal has been described as combining mind, body, and spirit, and it has become a popular way to promote physical and mental well-being [2, 3]. The terms "physical postures" (asanas), "breathing methods" (pranayama), and "meditation" (dhyana) are most commonly associated with the practise of yoga. However, other versions of yoga have arisen, each of which places a different emphasis on "physical and mental practises."

Although yoga is commonly used as a treat for asthma in India, this ancient practise has not yet gained widespread acceptance in Western countries [4]. Despite the fact that just 5% of adults and 7% to 10% [6] of children globally are thought to have bronchial asthma, the morbidity and mortality associated with the condition is increasing [5]. When the smooth muscle around the airways contracts, it causes asthma, a chronic lung illness that makes breathing difficult and leads to symptoms like coughing and wheezing [6].

Some studies have indicated that yoga can reduce the need for medication, the frequency of attacks, and the peak expiratory flow rate (PEFR) in people with asthma, making it a potentially cost-effective alternative or complementary therapy to inhaled steroid medications [7]. Yoga practise appears to have a positive effect on the smooth muscle clogging airways during an asthma episode because it relaxes the sympathetic nervous system through stretching, meditation (dhyana), and deep breathing (pranayama) [8]. The goal of this review is to establish whether yoga could be used as an alternative or supplement to traditional asthma treatment.

Asthma

Asthma is characterised by persistent airway inflammation and its heterogeneity. It is characterised by its past. Respiratory symptoms such as wheezing, shortness of breath, chest tightness, and cough that fluctuate over time and in severity. Intensity, in addition to changing expiratory airflow restriction. Airways narrow during attacks due to bronchial smooth muscle spasm and mucus hyper secretion, which reduces airflow into and especially out of the lungs. A blockage in the passage of air may disappear on its own or as a result of treatment, but persistent inflammation keeps the airways hyperresponsive to both specific and general stimuli. A person who suffers from asthma must exert significantly more effort in order to take in air and release it, and this is true regardless of the factor that sets off their asthma. In the instance of an attack, the lung's functionality comprises a reduction in flow and airway conductance, in addition to an increase in functional residual capacity, which elevates the respiratory elastic cost of breathing.

Role of yoga in Asthma

Patients with asthma have proved to benefit from exercise due to its positive effects [9]. Some clinical investigations have demonstrated a considerable improvement in pulmonary function measures in these individuals, including PEFR, VC, FVC, FEV1, FEV/FEC%, MVV, ESR, and absolute eosinophil count [10]. Multiple studies have demonstrated the efficacy of yoga in treating pain, associated stress, anxiety, and sleep disturbances in both patients and their caregivers. Yoga has proven to be an effective treatment for individuals with severe respiratory illnesses. Yoga helps to increase the mechanical effectiveness of our breathing and maximise our lung capacity even if the lungs are permanently damaged, as in the case of chronic bronchitis. Yoga has an impact on ventilatory lung functions, which are influenced by the thoracic and lung compliance, airway resistance, and

respiratory muscle strength. The Global Initiative for Asthma has also considered beutykoteqniue, which helps asthma patients breathe better and reduces their asthma symptom score ^[11, 5, 12].

How yoga and pranayama can help?

Yoga is founded on five precepts: positive thought and meditation, relaxation, exercise, pranayama, and a healthy diet. Controlled breathing, also known as pranayama, is a technique that, through consistent practise, increases lung capacity and overall physical functioning by regulating inhalation and exhalation. Utilizing diaphragmatic and abdominal muscles, the approach optimises the human breathing system. It has been demonstrated that regular practise of pranayama techniques such as Kapalbhathi, Nadisuddi, Bramhari, and Bhastrika is beneficial for practitioners. And we must perform them on a regular basis if we wish to have healthy lungs that endure a lifetime ^[13].

Dhanurasna, Bhujangasana, Matsyasana, and Trikonasana are some of the yoga postures that can be used to treat respiratory problems such as tuberculosis, asthma, COPD, bronchitis, etc. These positions are particularly good for lung cleansing and chest muscle strengthening. Incorporating layered asanas into one's yoga practise, such as the Surya Namaskar sequence, has been shown to have significant cleansing effects on our internal organs, in addition to producing a sensation of calm in the practitioner ^[13].

In the end, yoga's relaxing mental effects can lessen and release emotional tensions, removing the broncho-constrictor impact.

Conclusion

The conclusion that can be drawn is that traditional yoga is a viable and cost-effective way of treatment and rehabilitation for people who suffer from bronchial asthma.

References

1. Vedanthan PK, Kesavalu LN, Murthy KC, Duvall K, Hall MJ, Baker S, Nagarathna S. Clinical study of yoga techniques in university students with asthma: a controlled study. In Allergy and asthma proceedings. Ocean Side Publications, 1998;19(1):3.
2. Sabina AB, Williams A, Wall HK, Bansal S, Chupp G, Katz DL. Yoga intervention for adults with mild-to-moderate asthma: a pilot study. *Annals of Allergy, Asthma & Immunology*,2005;94(5):543-548.
3. Wilson SR, Rand CS, Cabana MD, Foggs MB, Halterman JS, Olson L *et al*. Asthma outcomes: quality of life. *Journal of Allergy and Clinical Immunology*,2012;129(3):S88-S123.
4. Nagarathna R, Nagendra HR. Yoga for bronchial asthma: a controlled study. *Br Med J (Clin Res Ed)*,1985;291(6502):1077-1079.
5. Sathyaprabha TN, Murthy HEMALATHA, Murthy BT. Efficacy of naturopathy and yoga in bronchial asthma-- a self controlled matched scientific study. *Indian journal of physiology and pharmacology*,2001;45(1):80-86.
6. Mekonnen D, Andualem M. Clinical Effects of Yoga on Asthmatic Patients: A Preliminary Clinical Trial, Jimma, Southwest Ethiopia. *Ethiopian journal of health sciences*, 2010, 20(2).
7. Kligler B, Homel P, Blank AE, Kenney J, Levenson H, Merrell W. Randomized trial of the effect of an integrative medicine approach to the management of asthma in adults on disease-related quality of life and pulmonary function. *Alternative Therapies in Health & Medicine*, 2011, 17(1).
8. Sabina AB, Williams A, Wall HK, Bansal S, Chupp G, Katz DL. Yoga intervention for adults with mild-to-moderate asthma: a pilot study. *Annals of Allergy, Asthma & Immunology*,2005;94(5):543-548.
9. Bacon S, Lavoie K, Bourbeau J, Lemièrre C, Pepin V, Beland M, Ex-Asthma Study Group. Impact of a 12-week supervised aerobic exercise program on asthma control in adult patients with asthma: preliminary results from the EX-ASTHMA behavioral RCT. *Chest*,2015;148(4):640A.
10. Agnihotri S, Gaur P, Bhattacharya S, Kant S, Pandey S. Benefits of Yoga in Respiratory Diseases. *Indian Journal of Pharmaceutical and Biological Research*,2018;6(04):10-13.
11. Singh S, Soni R, Singh KP, Tandon OP. Effect of yoga practices on pulmonary function tests including transfer factor of lung for carbon monoxide (TLCO) in asthma patients. *Indian J Physiol Pharmacol*,2012;56(1):63-68.
12. Fulambarker A, Farooki B, Kheir F, Copur AS, Srinivasan L, Schultz S. Effect of yoga in chronic obstructive pulmonary disease. *American journal of therapeutics*,2012;19(2):96-100.
13. <https://www.medindia.net/news/suffering-from-respiratory-issues-try-yoga-207025-1.htm#:~:text=Some%20of%20the%20yoga%20poses,cleansing%20and%20strengthening%20chest%20muscles>.