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A REVIEW ON ROLE OF YOGA IN VARIOUS DISEASES

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ABSTRACT

Swastha is the state of maintaining equilibrium between *Dosha*, *Dhatu* and *Mala* with the proper functioning of *Aatma*, *Indriya* and *Mana* in the body. Yoga helps in connecting the mind with the body and soul. It consists of *Asana*, *Pranayama* and meditation. *Asana* is a particular position of the body which helps in achieving steadiness of body and mind. *Pranayama* helps in controlling breathing which is very effective than normal breathing. Meditation helps in connecting mind, body and soul. Yoga is found to be very effective in diseases like rhinitis, asthma, sinusitis, hearing loss, bronchitis etc. Yoga produces *Nadi shuddhi* (purification of all the channels) and *Mala shuddhi* (eradication of factors that disturb balanced working of body and mind) which help in enjoying positive health and freedom from diseases.

Key-word- *Swastha*, *Asana*, *Yoga*, *Pranayama*, Meditation, Disease.

Introduction

Yoga is the ancient healing system of the India. The word 'Yoga' is derived from word "Yuj" which means 'union'. It helps in achieving a union and harmony between our mind, body and soul.^[1] It involves series of activities performed synchronously such as breathing exercise, relaxation, meditation, and physical exercise. It helps in achieving physical, mental, social and spiritual well-being. Yoga not only comprises of only breathing exercise, *Asanas* but it also consist of ethical codes and personal discipline necessary for ethical, spiritual and social development. The *Asanas* and *Pranayam*, improve the physical development and physical activity. Meditation helps in the inner union of our personal consciousness with inner peace. Yoga helps in achieving the state of complete physical, mental and social wellbeing. *Pranayama* is an ancient Indian practice of controlling one's breathing. It helps in relieving anxiety, depression; improve blood circulation and concentration.^[2]

Sinusitis

Sinusitis is the inflammation of the sinuses. Sinuses are small, air filled spaces present behind the nose and facial bone. Sinuses open into the nose and help in the maintenance of temperature of the air which is reaching to the lungs. Sinus produces mucus which drains into the nose through small channels. Sinusitis can occur due to viral, bacterial, fungal, allergic infections. The inflammation of sinus leads to blockade of the normal drainage

pathways, leading to mucus retention which causes difficulty in breathing, running nose, headache etc.^[3]

Various symptoms of Sinusitis are *Jwara* (Fever), change in voice, nasal obstruction, purulent nasal discharge, headache etc. In case of chronic sinusitis, dull pain or pressure is experienced across the mid-face, nasal congestion etc.

Yoga is found to be very effective therapy in curing Sinusitis. It helps in balancing the *Nadis* (energy centers) in the body and removes the obstruction caused due to inflammation.

- The chanting and humming of word "OM" helps in creating sound vibrations which allows movement of air between the sinus membrane and nasal passages.^[4] This results in opening of channels connected to the nose therefore allowing the sinuses to drain properly. This create a healthy environment and reduction in the infection.^[5]
- *Gomukhasana* (cow face pose) helps in stretching of chest muscles providing flexibility in the air passage region and reduces stress.
- *Janu Sirsasana* (Head to knee pose) provides relief in headaches, insomnia.
- *Bhastrika Pranayama* helps in removal of microbes, deoxygenated air therefore facilitating the drainage of the excess mucous from the sinuses.
- *Anulom Vilom Pranayama* is also referred as *Nadisodhana Pranayama*. It helps in removing the congestion from the *Nadis* therefore maintain the free flow of energy and also improves the immune system.^[6]

- *Bhujangasana* (cobra pose) stretches lungs therefore makes breathing easier.
- *Kapalabhati* is of prime importance as it is the best exercise for cleaning respiratory blockages, improving mental functioning and refreshing the head region.
- Meditation and *Mantra* recitation improves the microcirculation which reduces the stress. Stress free mind is important for the healthy body and soul.^[7]
- *Jala neti* is the procedure of nasal irrigation by lukewarm saline water, which removes the dried mucous from the nose, cleanses sinuses and helps in restoring the flow of air.^[8]
- *Kunjla kriya* helps in expulsion of phlegm and mucous deposited in the body.

Chronic Rhinosinusitis

Chronic rhinosinusitis is a common clinical condition these days affecting the general population due to improper Vihara, increased pollution, and increase in resistance to antibiotics. The treatment planning includes medications such as antihistaminics, nasal decongestants, and antibiotics.^[9] But they have various side effects and can lead to antibiotic resistance. Some Yoga techniques such as *Jal Neti*, *Bhramari pranayama* is proven to be safe and effective in various clinical conditions of ear, nose, and throat.

Bhramari pranayama is a breathing exercise in which the patient is asked to take a deep breath and exhale slowly through his nose making a loud humming sound and focusing his attention on the areas between the eyebrows by keeping his eyes closed. It is observed in several studies that humming acts as a sonic cleanser.^[10] It increases the generation of

nitric oxide level to many fold and thus stimulates vaso-dilation. Thus increases the air conditioning and ciliary movement which results in better drainage of the nose and paranasal sinuses.^[11]

Hearing loss

Due to the increase in noise pollution, excessive usage of mobile phones; ototoxic drugs, the incidence of deafness is increasing. According to W.H.O. approximately, 360 million individuals in the world are suffering from hearing loss. There are many causes of deafness such as noise, hypertension, hypothyroidism, obesity, electromagnetic field, diabetes, cervical spondylitis, sinusitis, etc.

Various Yoga *Aasanas* help in restricting the progressive hearing loss. Various neck muscles exercises and deep breathing exercises such as *Kumbhak*, helps in increasing the blood and oxygen supply to the inner ear.

- *Greeva chalan* (neck exercise) such as Cervical or neck flexion extension exercise, Lateral flexion exercise and Head Rotation exercises. These Yogic exercises improve blood supply to brain and labyrinth.
- *Bhramari pranayama* (bee breath) provides relief in tinnitus by stimulating the hair cells. This stimulation is done by neural reprogramming through sound generated by *Bhramari Pranayama* and *Shanmukhi Pranayam*. This produces vibration in the skull, brain and cochlea. The humming sound generates, echo in the ears.^[12] The damage of hair cells in old age can be prevented by neural plasticity through *Shankha Naad* and *Bhramari Pranayam*.
- *Kumbhak* is a respiratory exercise which is similar to Carbogen therapy given to treat

cerebral atrophy, deafness and Alzheimer's disease. In *Kumbhak*, we exhale the air for the maximum period which increases the carbon dioxide level in the blood. This stimulates the vasodilation, increases arterial oxygen concentration and the blood supply to the injured hair cells of cochlea which regenerate the hearing area.^[13]

- *Shankhanaad* is a powerful respiratory exercise of blowing a *Shankha* (snail pipe) which helps in toning of respiratory muscles. The sound produced by *Shankhanaad* stimulates the hair cells in inner ear thus prevent the hearing loss due to ageing. It also improves the vital capacity, speech defects, etc.

Allergic rhinitis

It is an allergic condition caused by various allergens or foreign particles. It is also termed as Hay fever, characterized by inflammation of the nasal passage, reddening of eyes, swelling, watery nose, sore throat, headache, sneezing, coughing and skin blisters. There are many Yoga *Aasanas* which improve breathing and immunizes the body against allergies.

- *Vrikshasana* (Tree Pose) improves the spinal column and enhance the balance of the body. It improves blood circulation and also improves breathing.
- *Salamba Sarvangasana* (Shoulder-Stand Pose) is beneficial for the nerves and mind. It also reduces insomnia, irritability; improves blood flow in the lungs; boost immunity and provide relief from allergic rhinitis.
- *Veerabhadrasana* (Warrior pose) improves respiration, balance in the body; relieve stress and increases blood circulation.

- *Matsya Asana* (Fish Pose) promotes deep breathing by stretching and strengthening the lung muscles. Thus improve circulation and distribution of blood throughout the body. It is essential in relieving allergic conditions and improving overall immunity.

Asthma and Bronchitis

Asthma is a common respiratory disease in which the bronchi (bronchi) gets narrowed which causes difficulty in breathing. The attack is characterized by sudden shortness of breath and wheezing, accompanied by a cough. Asthma attacks are triggered by infections such as colds and sinus infections, dust, food allergens, etc.

Bronchitis is a serious lung and bronchial infection caused due to inhalation of contaminated air, smoke; bacterial or viral infection. Asthma attacks occur most frequently in winter, humid climates, highly polluted environment, overcrowding, etc. Yoga helps in improving breathing, control mind and emotions. This increases the lungs function, airflow, relieve tension, increase flexibility and tone the respiratory muscles.

- *Sukhasana* helps in balancing the spine, slow down metabolism and promotes inner peace.
- Shoulder Lifts improve stiffness, poor posture and tension headaches.
- *Surya Namaskar* is a sequence of twelve Yoga *aasanas* performed as a continuous exercise. It provides relaxation to the whole body.
- *Ardha Matsyendrasana* helps in lengthening and strengthening of the spine. It is also advantageous for the liver, kidneys and adrenal glands.

- *Pavanmuktasana* is mainly for the digestive system and helps in eliminating excess gas of the stomach.
- *Pranayama* is the breathing control of inhalation, exhalation and the retention of vital energy.
- *Anuloma Viloma* (three-part breathing): This is a three part breathing exercise. During an asthma attack, this method may be more beneficial as it encourage the maximal entry of oxygen into the body. According to scholars, *Yoga* helps in keeping body and mind relaxed. Breathing exercises during *Yoga* are found to be effective in improving lung function and therefore has a positive effect on the respiratory system. *Pranayama* is a well-regulated breathing in which the lungs expand more frequently during normal breathing this leads to an increase in the surface area and therefore improve the spreading capacity. Due to the improved breathing pattern, the bronchioles get widened, relaxes somatic muscles and thus exchange of air is carried out effectively.^[14] *Yoga* increases respiratory capacity by increasing chest wall expansion and expiratory lung volume.^[15] It also increase oxygen consumption by 15 to 25% .^[16]

Conclusion

Yoga helps in achieving physical, mental and spiritual relaxation. It includes intake of proper healthy diet, *Yoga Asana*, meditation, breathing exercises to accomplish the highest level of consciousness. *Yoga* has the potential to prevent progression of the disease and if started in the early phase, it may even provide the cure. *Yoga* aims to promote positive hygiene and health through

development of inner powers of body and mind. It gives special attention to various eliminative processes and inherent powers of adaptation and adjustment of body and mind. *Yoga* produces *Nadi shuddhi* (purification of all channels of communication) and *Mala shuddhi* (eradication of factors that disturb balanced working of body and mind) which help in enjoying positive health and freedom from diseases.

Discussion

Ayurveda and *Yoga* therapy have become important part of life to rejuvenate the body for a better harmony in the mind, body and soul. It helps to maintain health, prevention from various diseases. *Yoga* includes the *Asanas*, breathing and relaxation exercises to control the mind and emotions and making body more relaxed. It help lungs to work better and enhance oxygen saturation in cells. It also improve the function of other organs of the body and very helpful in removing the toxins from body that is very helpful to prevent from disorders like asthma, sinusitis, bronchitis, COPD etc. In the *Yoga* exercise there are a number of precise movements coupled with correct breathing techniques that have been known to play a very important role in improving the circulatory system. This helps in regenerating the hair cells of cochlea and thus improves the hearing ability in old age. Regular *Pranayama* (breathing exercises of various types), particularly alternate nostril breathing (*Anulom vilom*) and *Kapalbhati* have proven to be effective in asthma, head

and neck problems, cardiovascular diseases, respiratory disorders, etc.

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