

## ***Jala neti* as an effective measure on the prevention of upper respiratory tract infection w. s. r. to Covid 19: a review study**

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### **ABSTRACT:**

*Yogic* practices aid in prevention and maintenance of health. Classical *Yogic* texts such as *Hathayoga Pradipika*, *Gherand Samhita* describe different *Yogic* techniques for prevention and to overcome various disorders of body and mind. *Hathayoga Pradipika* and *Gherand Samhita* described *Shatakarma* i.e. six cleansing processes. *Shatakarma* consists of six cleansing processes namely *Dhauti*, *Basti*, *Neti*, *Trataka*, *Nauli*, *Kapalabhati*. *Neti Kriya* is one of the *Shatakarma* which helps in preventing and managing upper respiratory tract diseases. A rapid transmission of the severe acute respiratory syndrome Corona virus 2 has led to the novel corona virus disease 2019 (COVID 19) pandemic. The current emphasis is on preventing strategies such as physical distancing, face mask and hand washing. In this review, A *Jala Neti* has been suggested to be useful in the

prevention and reducing transmission of viral acute respiratory tract infections. We found *Jala Neti* is non- invasive, non-pharmacological, affordable, safe and effective mode to prevent and improve quality of respiratory health.

**KEY WORDS-** *Yoga*, *Shatakarma*, *Jala Neti*, COVID 19

### **INTRODUCTION:**

*Yogic* practices aid in prevention and maintenance of health. Basically, half the *Yogic* system is theoretical study while basically it is applied for self-realization. The science of *Yoga* has to be studied systematically to realize the hidden truth in *Patanjal Yogsutra*. Maharshi *Patanjali* explains *Ashtanga Yoga*. *Ashtanga Yoga* include *Yama*, *Niyama*, *Asana*, *Pranayama*, *Pratyahara*, *Dharana*, *Dhyana*, *Samadhi*<sup>[1]</sup>. Also ancient *Yogic* texts like *Hathayoga Pradipika*, *Gheranda*

*Samhita* and *Shiva Samhita* described different *Yogic* techniques to overcome various disorders of body and mind. We can systematically adopt these therapeutically values for prevention, cure and management of ill body and mind. *Hathyoga Pradipika* describes *Shatakarma*. *Shata* means six and *Karma* implies for action. *Shatakarma* consists of six cleansing procedures. These six cleansing procedures are *Dhauti*, *Basti*, *Neti*, *Trataka*, *Nauli* and *Kapalabhati*<sup>[2]</sup>. It should be practiced when *Meda* and *Kapha* are in excess quantity<sup>[3]</sup>. *Shata Kriya* helps to prepare the body for proper practice of *Yogasana* and *Pranayama*. These *Shatakarma* (cleansing procedure) cleans digestive system, respiratory system, eyes, tone up the abdominal viscera and intestine.

Poor lifestyle, daily hassle, work-life imbalance, untimely eating and sleeping habits, mental and social conflicts lead to the health problems. Apart from the functional unity of different parts of the body, *Yoga* believes in the mutual relationship between the body and the mind. Both physical and mental impurities can be filtered by practicing *Yoga*. But, firstly we need to clean body with the help of *Shatakarma*<sup>[4]</sup>.

The contribution of chronic respiratory diseases to the total in India increased from 4.5% in 1990 to 6.4% in 2016. COPD and asthma were responsible for 75.6% and 20% respectively in India in 2016<sup>[5]</sup>. Improper management of sinusitis and associate symptoms leads to asthma. In India, there are an estimated 15-20 million asthmatics. W.H.O. estimated that 235 million people currently suffering from asthma<sup>[6]</sup>.

Rapid transmission of severe acute respiratory syndrome corona virus has led

to the novel corona virus disease 19 (COVID19) pandemic. The current emphasis is on preventive strategies such as physical distancing, applying face mask and hand washing. In current situation, there is not enough evidence to substantiate the benefits of using antibiotics routinely in the treatment of upper respiratory tract infection<sup>[7]</sup>. There is an increase in adverse effects associated with the use of antibiotics in adult patients<sup>[6]</sup>. Hence, there's need for non-invasive, non-pharmacological, cost effective, safe mode of prevention to improve the quality of respiratory health.

*Jala Neti* removes foreign bodies like, allergens, dust and cleanses the brain cells, clear vision and annihilates diseases which manifest above the the root of the neck<sup>[8]</sup>. Drainage of sinuses by preventing stasis of mucus. It also increases blood circulation and functional efficacy of the nasal mucosa. It has a positive effect on cognitive abilities like memory, concentration and is beneficial in reducing anxiety and depression by the systematic practice, secretion and drainage mechanism of the entire ear, nose and throat area are well maintained. This helps to prevent conditions like sinusitis, cold, cough, allergic rhinitis and insensitivity to smell<sup>[9]</sup>.

### ***Neti Procedure:***

This procedure involves cleaning up the nasal passages as well as the throat. It is of two types. When it is done with saline water (*Lavan Jala*), it is called *Jala Neti*. Another variation is *Sutra Neti* which can be done using smooth cotton thread but, now a days rubber catheter is more convenient<sup>[10]</sup>.

***Jala Neti;***

A suitable *Neti* pot should be used, filled with saline water (exact quantity of salt in water is not given in text) use of salt reduces discomfort. It has a higher osmotic pressure than pure water and will not be as easily absorb into the membranes. The salt kills bacteria present and flushes out viruses. Take 1.5-2 feet distance between the feet, Keep the mouth wide open so that one can breathe. lean forward at lower back, tilt head on either side, insert the nosal of the *Neti* pot into any nostril which is breath out fast at that time while rising the pot inhale and exhale through mouth. So that water will flow in through one nostril and flow out through the other. So

Symptoms of COVID 19	Benefits of <i>Jala Neti</i>
Cough, Shortness of breath or difficulty in breathing, Headache, Sore throat, Congestion or runny nose, Loss of taste or smell etc.	It provide relief in inflamed upper airways, clear excess of mucous in nostrils, decongestion, improve breathing also <i>Neti</i> improves sensitivity of the olfactory nerves, helping to restore loss of sense of smell and taste.

put down the pot and clear the nose. Repeat same procedure for the other nostril. Clear the nose. It is ideally practiced in the morning before *Asanas* and *Pranayamas*.

After *Jala Neti* procedure *Kapalabhati* should be mandatorily performed to remove rest of the water from nostril. *Kapalabhati* consist of forceful exhalation followed by passive inhalation in rapid successions.

#### Benefits of *Neti*:

The *Neti* procedure cleans the brain cells, endows one with divine sight and annihilates all diseases of the upper region of the body <sup>[11]</sup>. It removes the breeding ground for germs in the nasal mucosa. *Neti* procedure is effective in the condition of sinusitis, inflammation of the adenoids, eyes, throat, tonsil, catarrh, headaches, insomnia and tiredness. It gives soothing effect to the brain. It is influential on depression, epilepsy, migraine and tension stress conditions. The daily practice improves all other ailments of the respiratory system such as asthma, bronchitis, pneumonia etc. from an esoteric perspective, clearing impediments to the free flow of air has a profound effect on all the other *Koshas* of the body, which has a great influence on psycho-spiritual health <sup>[12]</sup>.

#### Precautions:

During the practice of *Jala Neti*, water should pass only through nostrils. Even if water enters in the throat or mouth it does not cause any harm. Too little salt may induce pain and too much salt may cause burning sensation.

In chronic bleeding a structural deformities of nose should seek expert guidance while performing *Neti*. Those prone to or have ear infections should avoid *Neti*.

#### Table No. 1: COVID 19 vs Benefits of *Jala Neti*

#### AIMS AND OBJECTIVE:

- 1) To review, discuss and elaborate the concept related to *Jala Neti*.
- 2) To understand the important of *Jala Neti* in prevention of Upper Respiratory tract infection.

## MATERIALS AND METHODS:

This article is based on a review of *Yogic* texts. Materials related to *Jala Neti*, upper respiratory tract infection and COVID 19. The main *Yogic* text used in this study are *Hathayoga Pradipika*, *Gheranda Samhita*, *Patanjal Yogasutra*.

We have also referred to the modern texts and searched various website to collect information on the relevant topics from the internet.

## DISCUSSION:

As the nose is in direct contact with the external environment, it is exposed to many micro-organisms and pollutants present in the atmosphere. Due to increase in environmental pollution upper respiratory tract infection is a common disease. Use of face mask to prevent and nasal transmission of COVID19 can come in handy.

*Jala Neti* is one among the six cleansing procedure to be utilized for purification of upper respiratory tract. It cleans nasal passage and related function. On the physical level *Neti* procedure remove excessive nasal mucosa from the nostrils, associated passages and sinuses, improving breathing by reducing cough.

*Neti* removes all the dirt and bacteria filled mucous from within the nose. It is also beneficial against diseases such as asthma and bronchitis; it reduces the tendency of mouth breathing by freeing the nostrils of mucus. *Neti* improves sensitivity of the olfactory nerves, helping to restore lost sense of smell and taste. Using lukewarm water in *Neti* procedure, the increased temperature inhibit replication of rhinovirus as it cannot replicate above

37°C. The *Neti* procedure can prevent virus from multiplying in the nasal and pharyngeal mucosa. This it is prescribed and found to be useful in reducing symptoms, transmission and preventing upper respiratory tract infection<sup>[10]</sup>.

## CONCLUSION:

According to *Yogic* literature, *Jala Neti* is an important *Shatakriya* which plays a vital role in preventing the upper respiratory tract infection. *Jala Neti* is simple, cost effective, non-pharmacological and safe procedure to curb the transmission and prevent SARS – COVID 19 as we await definitive therapy or vaccine and may give ray of hope especially in prevention.

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