

Implementation of JALNETI (Nasal Irrigation) To Control Vision and Sinusitis

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ABSTRACT

Neti kriya is an integral part of shatkarmas/the six cleansing techniques that form the most important aspect of hatha yoga. Neti helps in preventing and managing upper respiratory tract diseases. I used keywords like Jalneti, neti kriya, neti combined with terms such as yoga, sinusitis, rhinitis, common cold, vision, snoring, nasopharyngeal carcinoma and mental health. As only a few results were obtained, I reviewed relevant studies with saline nasal irrigation. Evidence emerging from this review suggests that neti offers manifold benefits and relief from the antibiotic grip. Most studies support the role of neti in treating sinusitis, rhinosinusitis, allergic conditions and in improving vision. Jalneti has a significant role in improving the presence of mind and intelligence. We identified that it can be applied in mitigating post irradiation rhinosinusitis in nasopharyngeal carcinoma. However, randomized control trials must be conducted to substantiate the therapeutic efficacy of this simple cost-effective, non-pharmacological mode of treatment.

Keywords: Jalneti, Shatkarma, Sinusitis, Vision, Yoga

INTRODUCTION

Yoga is one of the ancient sciences prevalent from time immemorial. The system of yoga on one hand is a theoretical study and on the other, it is a practical step for self-realization. 'Yoga Shastra', the science of Yoga has to be studied systematically to realize the hidden truth in this great ancient science. Maharshi Patañjali defines yoga as 'yogah cittavrtti nirodhah'. Hatha yoga is appraised to be one of the most significant tools to overcome various physical and psychological problems. Hatha Yoga Pradipika (H.P)[1] and Gheranda Samhita[2] described Shatkarmas. 'Shat' means six and 'karma' implies action; Shatkarma consists of the six purificatory procedures. It should be practiced when Medas and Kapha were in excess. Dhauti, Basti, Neti, Trataka, Nauli and Kapalabhati were the six cleansing processes[3]. Among these Neti eradicates Kaphaja disorders and improves vision[4]. Improper management of sinusitis and associated symptoms. One of the most important Yoga practices for the prevention and management of eyesight, obesity and sinusitis is the Neti Kriya that is one of the Shat Karmas of Hatha Yoga. All the diseases occurring in the head and neck can be dealt with neti. Neti is the practice of cleaning the nasopharyngeal tract with liquids or thread. Types of Neti include Jala Neti (nasal irrigation with lukewarm saline water) and Sutra Neti (nasal cleaning with a thread or catheter. Others are Dugdha Neti (with milk), Ghrta Neti(with ghee)[5]. The use of nasal saline is deeply rooted in history. It has been practiced for thousands of years as part of Hatha Yoga, where it is called Jala Neti[6]. Yogis use nasal cleansing, as well as cleansing of other areas, to attain a higher state of meditation, but practitioners also note advantages related to bodily health. Nasal cleansing has also been advocated in western medicine for over 100 years.

In 1895 the British Medical Journal declared the nose —one of the dirtiest organs of the body loaded with all sorts of nastiness and recommended regular cleansing [7]. Neti is a technique to cleanse the nasal passages. It is a cleansing process related to the upper part of the respiratory system. Neti may be broadly classified into jala neti and sutra neti. Although authentic references are not available for jala neti, it is most widely practiced. It is usually practiced with a neti pot filled with lukewarm saline water. The exact amount of salt is not mentioned in any traditional texts. Practically it is about 2.5 g for 500 L of water. Based on clinical studies use of proper salt concentration (2e3.5%) has been recommended in nasal irrigation[8]. Some authors mention about the use of ksheera (milk) and madhu (honey) instead of lukewarm water. In this study three disorders are included – eyesight, obesity and sinusitis and Jalneti kriya is implemented to control the above mentioned disorders. The study was done on patients of age group between 18 years to 25 years. For weak eyesight, the time duration of study was four to six for 20 minutes daily. In the obesity, the study was done for three to four months for 10 to 15 minutes daily. For sinusitis, it was done for four to six months for 15 minutes daily. All the patients were given totally Kaphanirodhak diet during the whole treatment.



Therapeutic effects

Jalneti cleanses cranium, gives clear sight and alleviates diseases which manifest above the root of the neck. Jalneti removes foreign bodies like allergens, dust and enhances the drainage of sinuses by preventing stasis of mucus. It also increases blood circulation and functional efficiency of the nasal mucosa. Jalneti provides a relaxing and irrigating effect upon the eyes by stimulating the tear ducts and glands. It has a positive effect on cognitive faculties like memory, concentration and is beneficial in reducing anxiety and depression. By the systematic practice of jalneti, secretory and drainage mechanisms of the entire ear, nose and throat area are well maintained. This helps to keep at bay conditions like sinusitis, cold, cough, allergic rhinitis and insensitivity to smell [9]. Jalneti can be done by simple practice along with your daily routine. Jalneti pot is filled with warm salt water. The head is tilted to the side, and the pot's spout is inserted into the top nostril. The individual breathes through the mouth, keeping it open. Water is slowly poured into the nostril, and it is allowed to drain through the lower nostril. The same process is then repeated on the second side. Jalneti is performed by using a neti pot with a pinch of salt and lukewarm water. Neti pot is usually small and has a long spout on one side, which is small enough to be inserted gently into one of the nostrils during the process.

Implementation of Jalneti in Sinusitis

In chronic rhino sinusitis saline irrigation is one of the keystones of treatment. Patients, who practiced daily nasal irrigation, had improvement in symptoms of chronic sinusitis up to 65% after 24 weeks of treatment. In these patients the use of medication had decreased considerably [10]. Evidence supports that there was a significant improvement in nasal symptoms and health status of patients with sinonasal disease who had undergone treatment twice daily for 24 weeks[11]. In a 1 month study of chronic sinusitis in aged 18 to 25 years, it was found that the use of hypertonic saline reduced cough and nasal secretion[12]. Main clinical features of chronic sinusitis are purulent nasal discharge, foul smelling discharge, local pain, headache, nasal stuffiness and anosmia[13] which may be compared with dusta pratisyaya in which major symptoms are slesma sruthi (discharge of fluid resembling pus), mukha dourghandhya (foul-smelling of mouth), uraeparswa vedana (pain in chest and flanks), nasa rodham (blockage of nasal passage)[14] and gandha na vethi[15] (anosmia). Analyzing these it is advisable to use Jalneti in dusta pratisyaya. Most studies consider saline nasal irrigation effective in the management of sinusitis. It may infer that Jalneti can be adopted as a first-line treatment. Studies was done on jala neti so as to prove its efficacy in the management of sinusitis. Standardized protocol needs to be developed regarding the procedure.

Implementation of Jalneti in Vision

A comparative study on the effect of Saptamrita lauha and yoga therapy in Myopia revealed that yoga therapy comprising of Jalneti, Nadi Shodhana Pranayama, Shitali Pranayama and Point Trataka exerted better improvement in associated changes of myopia when compared to Saptamrita lauha alone. Practice of Jalneti and other yoga procedures were effective in symptoms like eye pain, eye strain, watering and heaviness of eye. The treatments were done for a period of 3 months with a 1 month follow up[16]. The above study supports the therapeutic efficacy of Jalneti in improving vision. It is yet to be studied, in which all ophthalmic cases Jalneti can be applied. Evidence has shown that when used as combined therapy Jalneti yields a significant improvement in myopia. Systematic practice of Jalneti results in the reduction of eye strain and subjective improvement in vision. However, the competence of Jalneti as an exclusive therapy ought to be explored.

Neti as a preventive approach

A study done by Rabago et al. indicated nasal irrigation with a hypertonic saline solution reduced the severity of symptoms in sinusitis. Participants used nasal irrigation for a period of 6 months [17]. In a 20 week study by Tano et al. on healthy adults, it was found that participants had lesser attacks of upper respiratory tract infections or 'common cold', is the most frequent illness in humans, during the 10 week period of daily saline nasal irrigation than during the observational period of 10 weeks [18]. In spite of known side effects antibiotics are widely used. However, they do not offer complete cure nor prevent recurrence.

Major clinical studies reviewed are enlisted in Table 1.

Table 1:- Major clinical studies reviewed.

Author & year	Type of trial	Indication	Population	Sample size	Treatment time	Group	Major findings
Shoseyov D (1998)	Randomized double blind study	Chronic sinusitis	Children 3–16 years	30	4 weeks	Hypertonic Saline group (HS) with hypertonic saline (3.5%) Normal Saline group-normal saline (0.9%)	Reduced cough, nasal secretion in HS group



Tamooka LT (2000)	Prospective controlled clinical study	Sinonasal disease	Adults	231	Twice daily – 6 weeks	Treatment group-nasal irrigation using hypertonic saline delivered by Water pik device Control- sinonasal disease free subjects but did treatment	
Bhansal C (2014)	Comparative study	Myopia	Adults Children (13–27 years)	60	3 months – follow up after 1 month	Group A – intake of saptamrita lauha, Group B – jala neti, nadi shodhana, shitali pranayama, trataka	Reduced eye pain, eye strain watering of eyes and heaviness of eyes in Group B
Luo H-H (2014)	Randomized clinical study	Nasopharyngeal carcinoma	Adults	1134	2 years, 2 times daily	A e nasal irrigator B e homemade nasal irrigation C e nasal sprayer	Nasal symptoms reduced

RESULTS

The study showed incredible results for all of the disorders. As a result in the case of weak eyesight, patient's glasses are removed and sleep cycle get enhanced and has not watery eyes any more, some results are listed in Table 2.

Table 2:- Some trial made on students

Sl.No.	Name	Before Jalneti right vision	After Jalneti right vision	Before Jalneti left vision	After Jalneti left vision
1		6/24p		6/24p	
2		6/18p		pl -ve	
3		6/24p		6/36/p	
3		pl+ve		6/12p	
4		6/24		PL(+) C PNC 6/9	
5		6/12p		6/12p	
6		6/24		pl(-)	
7		6/24		6/12	
8		6/18p		6/36p	
9		6/6p		6/6p	
10		6/18p		6/60p	

In the case of sinusitis, blocked nose opened, swelling of nasal bone reduced and epistaxis (bleeding nose) improved.



Time period for data collection:

- 1. Base line (before): Peak Nasal Inspiratory Flow (PNIF) values are recorded before the practice.
- 2. Post Data: Peak Nasal Inspiratory Flow (PNIF) is recorded immediately after the practice.

Nasal Peak Inspiratory Flow Rate (NPIFR):

PNIFR measurements were performed with a Youlten Peak flow meter which is similar to a mini-Wright flow meter. Peak Nasal Inspiratory Flow Rate expressed in L/min is defined as the maximal instantaneous airflow achieved during forced inspiration through the nose. Asking the patient to take a deep, quick forced inspiration after having expired normally, performs the test.

Jalneti on Nasal Peak Inspiration Flow Rate

The Resultant Table 3 Impacts that the immediate effect of Jalneti on Peak Nasal inspiratory flow before the practice (82.65 ± 11.35) was improved to (107.35 ± 11.36). And was statistically significant with Pvalue (0.001).

Table 3: Comparison of Peak Nasal Inspiratory Flow Rate before and after Jalneti practice

Variable	Yoga	Pvalue	
	Pre	Post	
PNIF L/min	82.65 ±11.35	107.35±11.36	0.001

CONCLUSION

As the nose is in direct contact with the external environment, it is exposed to the many Microorganisms and pollutants present in the atmosphere. Due to the increase in environmental pollution and the busy lifestyles of today, rhinitis is a common disease in the present era. Jalneti is one among six purificatory measures to be utilised by yoga practioner for inner and outer purification.

According to yogic literature, Neti is an important shatkriya which play a pivotal role in managing upper respiratory tract diseases. The findings of the result are satisfactory as the study showed positive results along with no side effects. Extensive work needs to be done to identify the benefits of using Madhu Neti and Dudh Neti. Promising result of Jalneti in improving the intellectual potential of mentally retarded needs to be explored.

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