



REVIEW ARTICLE

EFFECT OF *SHUDDHIKRIYA-JALANETI* IN CHRONIC SINUSITIS WITH SPECIAL REFERENCE TO *JEERNA-PRATISHYAYA* - A CASE REPORT

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SUMMARY

Sinusitis is an severe inflammation of the membrane lining of any sinus, especially one of the Paranasal sinuses of the skull that includes the Maxillary, Frontal, Ethmoidal and the Sphenoidal sinuses. Here a case of 45 year old lady with chronic sinusitis has been brought into light who has taken almost all possible medications but could not found any satisfactorial results. Sushruta samhita, one of the pioneer Granthas(Textbooks) of Ayurveda describes Jeerna Pratishyaya(chronic sinusitis) in resemblance of chronic sinusitis. Also, the ayurvedic management of *Jeerna-Pratishyaya*(Chronic Sinusitis) mainly emphasizes on various dietary interventional patterns and Yogic processes including Asanas and ShuddhiKriya's (clensing processes).Jalaneti is one of the Shuddhikriya indicated for the Urdhwajatrugatrogas(E.N.T Disorders) of Ayurveda. Hence, keeping this Hypothesis in mind, a 7 day Jalaneti was planned for the above patient to evaluate the immediate effect of the therapy in chronic sinusitis. This paper mainly focuses on the benefits and scientific basis of *Jalaneti* in the management of Chronic Sinusitis(~*Jeerna-Pratishyaya*).

Key Words: Jalaneti, Chronic Sinusitis, Jeerna Pratishyaya.

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INTRODUCTION

Sinusitis is an inflammation of the membrane lining of any sinus, especially one of the Paranasal sinuses of the skull that includes the Maxillary, Frontal, Ethmoidal and the Sphenoidal sinuses. It is estimated that more than 120 million Indians suffer from at least one episode of acute sinusitis each year. The prevalence of sinusitis worldwide has scored in the last decade due to increased pollution, urban sprawl and increased resistance to antibiotics. We should never underestimate the negative impact on the patients quality of life as through sinusitis may have never killed; it sure has made many feel like killing themselves¹. In chronic Sinusitis, the following symptoms may be present for 12 weeks or more. These symptoms include facial pain, or pressure, facial congestion, nasal blockage, thick nasal discharge and fever. Patients also complaints of headache, Bad breath and fatigue¹. The close proximity of brain to sinuses leads to intracranial and orbital complications. Diagnosis by X- ray of Para-nasal sinuses that appear hazy or show fluid level, by CT scan of Para-nasal sinuses and sometimes if required Proof puncture is done for aspirating the secretions and sent for investigations². The conventional medical approach is use of local and systemic decongestants and analgesic to relieve the symptoms with broad spectrum antibiotics. In

Ayurveda, .*Acharya Sushrut* mentions *UrdhwaJ atrugatRoga's* in detail. *Jeerna-Pratishyaya* is one of the important chronic disorder of *Nasagata-Roga* (nasal disorders) which closely resembles with chronic sinusitis³.

The Ayurvedic management of *Jeerna-Pratishyaya* (Chronic Sinusitis) mainly emphasizes on various dietary interventional patterns and Yogic processes including Asanas and Shuddhi Kriya's⁴. This paper mainly focuses on the benefits and scientific basis of one of the important *Yogic Shuddhi Kriya-Jalaneti* in the management of Chronic Sinusitis (~*Jeerna-Pratishyaya*).

Why Jalaneti

Jalaneti is one of the Shatkarmas (six cleansing practices) of yoga, practiced for internal cleansing. Presumed benefits of Jalaneti includes removal of mucous and pollutants from the nasal cavity allowing unobstructed flow of air. It may help in prevention and management of upper respiratory tract diseases and relieve allergies, colds and acute as well as chronic Sinusitis⁴.

CASE REPORT:

Hereby presenting a case of a 45 year old female complaining of facial pain, headache, nasal congestion, fever and fatigue since 10-15 days who walked into the OPD of E.N.T, Government Ayurved College & Hospital. Physical and systemic examination showed pallor, redness of eyes with Para nasal pain

and tenderness on pressure. Previous clinical history of the patient revealed that she was suffering from on and off episodes of symptoms such as nasal congestion, post nasal discharge, headache, cough with fever since 2-3 years or even more each and were totally dependent on nasal decongestants and a heavy dose of antibiotics for suppression.

X-Ray Paranasal Sinuses (Waters view) showed haziness and fluid accumulation in the sinuses, (maxillary and ethmoidal). Haematological investigations were not so significant showing mild increase in the Eosinophil count. Thus, from the above clinical and radiological findings, it was confirmed that the case was of chronic sinusitis. Patient was taken near about all therapy. Hence, a seven days treatment of *ShuddhikriyaJalaneti* was planned to study the effect of the therapy. A written consent of the patient in the best understood language was taken prior to the procedure.

Procedure

According to the Yoga Samhitas, the procedure of Jala-Neti can be divided into 3 parts

1. Purva Karma (Pre treatment)
2. Pradhan Karma (Main treatment)
3. Paschat Karma (Post treatment)

1. Purva Karma: Nasya

The patient was made aware of the procedure and was planned for nasya with *anutailam* for the

Snehan (lubrication/oleation) of the Nose. 2 drops of *Anutailam* were poured in both the nostrils drop by drop from a height of 4 anguli (5-6 cm). She was advised to take deep breath and stay in the same posture for a while.

2. Pradhan Karma: -Jalaneti

This entire procedure was carried out for consecutive seven days in the O.P.D of E.N.T under the guidance of ENT specialist without providing any conventional medications

Standard operating procedure of Jalaneti⁵

Water mixed with *Saindhav* (rock salt) was taken in the one-sided holed pot called "NETI-PATRA". Pour water into one nostril by "NETI-PATRA" and allow the water to come out from another. 200 ml of water was used for one time wash. Blow the nostrils to clear of all the watery discharge. Repeat the same procedure with another nostril and blow off all the remanant mucous of nasal and oral cavity with a loud sneeze.

3 Paschat Karma-Kapaalbhati⁶

The patient is asked to sit in the Padmasana/Swastikasana and asked to perform Kapalbhati for about 5 mins. (15 strokes per minute)

Assessment Criteria

Subjective Criteria: Symptoms⁷

- Nasal Discharge
- Cough

- Headache
- Sinus tenderness
- Hoarseness of voice

Objective Criteria

- Haematological investigations- CBC
- X-Ray (Para-Nasal Sinuses-Waters view)

OBSERVATIONS :

In the present case, the female of 45 years of age was made to practice one week *Jala-Neti* under supervision, without providing

decongestants and any conventional medications. It was found that practicing proper *Jalanetifor* minimum seven days for about 15-20 minute (200 ml per wash) was quite beneficial for gentle cleansing and clearing the sinuses. Nasal Obstructions were removed paving the way for a clear airway. The following table shows the before and after therapy status of the patient on subjective parameters.

Table 1 Effect of Therapy on subjective criteria

Sr. No	Before therapy SCORE	After Therapy- SCORE	% Relief
1.Cough	2	1	50%
2. Nasal Discharge	2	1	50%
3. Headache	3	0	100%
4. Sinus Tenderness	3	0	100%
5.Hoarseness Voice	3	1	75%

Table 1 Effect of Therapy on X-ray

Sr. No	Xray- (PNS-Before Therapy	Xray-(PNS-After Therapy
1.X-ray PNS-Waters View(in an upright position)	Impression showed- Opacity with hazziness and fluid accumulation in the maxillary sinus along with mucosal oedema. Frontal and ethmoidal sinuses appeared normal.	Impression showed- Hazziness of the sinus was reduced but does not completely cleared the opacity. Frontal and ethmoidal sinuses appeared reasonably clear and transparent



Fig.1 X-ray PNS before Neti



Fig.1 X-ray PNS After Neti

RESULTS:

After the clinical and Radiological Observations before and after the therapy, it was interpreted that practicing *Jalaneti* for minimum seven days showed a remarkable decrease in symptoms nasal discharge and Headache. Besides this, cough, sneeze and hoarseness of voice was also suppressed to a good extent. X-ray-PNS after therapy showed

reduction in the opacity of maxillary sinuses with diminished mucosal Edema. However, for a complete normal X-ray PNS, it requires a continuous practice of Neti for more than 3-4 weeks

DISCUSSION:

Neti is one of the shatkarma (six cleansing practices) of yoga, practiced for internal cleansing. Jalaneti is a procedure in which

saline water is used to clean the nasal and oral pathways. A detailed account of the procedure is given in ancient texts and also in some recent references.⁸ Presumed benefits of Jalaneti includes removal of mucous and pollutants from the nasal cavity allowing unobstructed flow of air⁹. It may help in prevention and management of upper respiratory tract diseases and relieve allergies, colds and acute as well as chronic sinusitis. Jalaneti relieves muscular tension of the face, and helps practitioner to maintain a fresh air to breath. It has a cooling and soothing influence on the brain and is beneficial in the treatment of migraine. It stimulates nerve endings in the nasal cavity, improving the activities of the brain. A balance is brought about between the right and left nostrils and inducing a state of harmony and balance throughout the body and the systems governing circulation and digestion¹⁰.

In spite of Neti being the most recommended therapy in Yoga and Naturopathy clinics, very little work has been done to support its efficacy. We have attempted Jalaneti in an isolated case of chronic sinusitis and found significant clinical improvement and regression of the subjective scores also. This case report suggests that Jalaneti is indeed a possible mode of therapeutic intervention in chronic sinusitis. Our study suggests the need

for controlled clinical trials of the effectiveness of Jalaneti in various E.N.T conditions.

CONCLUSION:

Practicing *Yogic Kriya-JalaNeti* is quite beneficial in improving the clinical and radiologic status of patients with chronic sinusitis. Such practice of Yoga is inexpensive and safe when done under proper supervision and hence, should be implemented at the primary health care levels as an adjuvant therapy in the prevention and management of Chronic Sinusitis.

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