“EFFICACY OF JALANETI AND PRANAYAMA IN MANAGEMENT OF VATAJA PRATISHYAYA (ALLERGIC RHINITIS)”

Dr. Manish Arora*,1, Dr. Patwardhan Ravindra2, Dr. Shrikant G. Ingole3 and Dr. Rahul Gujarati4

1Assistant Professor, Department of Swasthavritta (Social and Preventive Medicine), Bharati Vidyapeeth (Deemed to be University) College of Ayurved, Pune, Maharashtra, India.

2Professor, Department of Swasthavritta (Social and Preventive Medicine), Bharati Vidyapeeth (Deemed to be University) College of Ayurved, Pune, Maharashtra, India.

3Department of Swasthavritta (Social and Preventive Medicine), Bharati Vidyapeeth (Deemed to be University) College of Ayurved, Pune, Maharashtra, India.

4Professor, Department of Balrog (Pediatrics), Bharati Vidyapeeth (Deemed to be University) College of Ayurved, Pune, Maharashtra, India.

ABSTRACT

According to World Allergy Organization, approximately 400 million people worldwide have Allergic rhinitis. The prevalence of allergic rhinitis may vary within and among countries. This may be due to geographic differences in the types and potency of different allergens. Allergic rhinitis has a close resemblance with vataja pratishyaya mentioned in Ayurveda. Allergic rhinitis is a condition which occurs when the immune system overreacts to allergens in the air. Signs and symptoms include a runny or stuffy nose, sneezing, red, itchy, and watery eyes, and swelling. This disease is also known for its recurrence and chronicity. It significantly impairs patient’s quality of life and productivity by imposing sneezing, nasal discharge, nasal blockage, headache, heaviness in the head etc. According to Yoga, Nasal Allergy is considered as a manifestation of an imbalance in Prana. Keeping the nasal passages clear and breathing properly is an extremely important process for which yoga advice regular practice of pranayama and
Jalaneti. Jalaneti and Pranayama are easy to practice, external, noninvasive procedures which clear the nasal airway and helps in reducing pratishyaya (allergic rhinitis). The combined effect of jalaneti and pranayama are beneficial in relieving the nasal allergies.

**KEYWORDS:** Jalaneti, Pranayama, Vataja Pratishyaya.

**INTRODUCTION**
According to World Allergy Organization (WAO), approximately 400 million people worldwide have Allergic rhinitis.[1] The prevalence of allergic rhinitis varies within and among the countries worldwide which are due to the geographical differences leading to a difference in the types and potency of allergens prevalent in those areas. Reports from various sources suggest that the variations in allergic rhinitis prevalence especially in developing countries may be related to the environmental and physical changes and the adoption of an urbanized lifestyle.[2] Worldwide, the prevalence of allergic rhinitis is between 10% and 30% and sensitization (IgE antibodies) to foreign proteins in the environment is up to 40% of the population.[3]

Charaka Samhita, an eminent classical text of Ayurvedic science, mentions vital organs in the body, which are Basti, Hrudaya (heart), and Shira (head region), of which shira is considered to be an important vital organ, Pratishaya is one of the most important diseases related to the nasaroga’s (diseases of nasal passage) coming under the vital organ Shira (head region), because it gives rise to other diseases of urdhvajatu i.e. head and neck region.[4] Vataja Pratishyaya is one among five types of Pratishyaya. In vataja pratishaya continuous secretion from the nasal passage is present. Allergic rhinitis has a close resemblance with vataja pratishyaya mentioned in Ayurveda. Allergic rhinitis is a condition which occurs when the immune system overreacts to allergens in the air. Signs and symptoms include a runny or stuffy nose, sneezing, red, itchy, and watery eyes, and swelling. This disease is also known for its recurrence and chronicity if not treated from its root. It significantly impairs patient’s quality of life and productivity by imposing sneezing, nasal discharge, nasal blockage, headache, heaviness in the head, itching in eyes, throat, palate etc.

Treatment in modern medicine for allergic rhinitis is a decongestant nasal drop, anti-allergic drugs, steroid drops systemic decongestant etc. which have transit effect with side effects for prolonged use. Recent surveys show that patients with allergic rhinitis are not satisfied with
their current treatment and this may be a reason for the frequent non-adherence to therapy.\[^{5,6,7}\]

According to Yoga, Nasal Allergy is considered as a manifestation of an imbalance in Prana. Keeping the nasal passages clear and breathing properly is an extremely important process for which yoga advice regular practice of pranayama and Jalaneti.

Jalaneti is one of the important cleaning processes described in yoga for nasal passage. As noted in Gherand Samhita jalaneti is beneficial in Pratishyaya. (ghe. San. 1/51).\[^{8}\]

The Anuloma Viloma Pranayama a type of pranayama helps to enhance prana (life force), purify Nadis and strengthen the respiratory system. (pranavaha-srotas) (ghe. San. 1/51).

Jalaneti and Pranayama are easy to practice and clear the nasal airway which helps in reducing pratishyaya. The present study analyzes the efficacy of jalaneti and pranayama in the management of Vataja pratishyaya (Allergic rhinitis).

**AIM**

Study the Efficacy of Jalaneti and Pranayama in the management of Vataja Pratishyaya.

**METHODOLOGY**

A clinical study was conducted on 30 diagnosed patients with pratishyaya (allergic rhinitis) for the period of 21 days. Patients were divided into two groups each consisting of 15 patients. Who were then treated with Jalaneti and Pranayama (Anuloma Viloma). Periodic follow up was done and finding recorded on the basis of assessment criteria, with drop out of 5 patients.

**Procedure**

**Group A treated with** Jalaneti and pranayama- total 15 patients were included. The patients were advised to perform jalaneti and pranayama (Anuloma Viloma) in the morning by themselves, on an empty stomach for the duration of 21 days. The patients were taught the procedure of jalaneti and pranayama for initial few days.

**Group B treated with** Anutaila Nasya- total 15 patients were included. The patients were advised to instill the Anutaila 2 drops in each nostril, every morning by themselves, on an
empty stomach for the duration of 21 days. The patients were taught the procedure of nasya on the first day and asked to follow procedure daily by themselves.

**Selection Criteria**
Patients between the age group of 20-60 years, irrespective of their socioeconomic class were included. Patients of both the sex were included in the study. Diagnosed patients suffering from Vataja Pratishyaya (allergic rhinitis) and having past history of not more than 2 years of chronicity were included in the study.

**Exclusion Criteria**
Patients contraindicated with jalaneti and pranayama were excluded. Patients suffering from a nasal polyp, epistaxis, Benign and malignant tumors, tuberculosis were excluded. Pregnant women were excluded. Patients suffering from any other systemic disorder and on any other medications were also excluded from the present study.

**Assessment Criteria**
Observation on parameters was done on 7th, 15th, 21st, 35th day of the treatment. Follow up for a period of 45 days was carried out after the completion of treatment (post-treatment follow up). Analysis of symptoms was done statistically on the basis of results obtained in subjective and objective Parameters which are as follows.

**Nasal congestion**
- Grade - 0 - Absence
- Grade - 1 - Partial, occasional and unilateral. Inhalation- exhalation with effort and with the feeling of mild obstruction
- Grade - 2 - Partial, frequently and bilateral. Inhalation- exhalation with effort and with the feeling of moderate obstruction.
- Grade - 3 - Complete, frequently and unilateral. Inhalation & exhalation to be supplemented with mouth breathing.
- Grade - 4 - Complete blockage, bilateral, followed by mouth breathing.

**Nasastrava (Rhinorrhea)**
- Grade - 0 - Absence of nasastrava.
- Grade - 1 - Occasional Rhinorrhea with the mild watery running nose.
- Grade - 2 - Rhinorrhea with occasional running nose with moderate watery fluid.
• Grade - 3  - Rhinorrhea with the heavy running nose, requires moping but controllable.
• Grade - 4  - Severe Rhinorrhea, with copious fluid, requires continuous moping.

**Kshavathu (Sneezing)**
• Grade - 0  - Absence of sneezing
• Grade - 1  - 1 – 10 sneezing / day
• Grade - 2  - 10 – 15 sneezing / day
• Grade - 3  - 16 – 20 sneezing / day
• Grade - 4  - > 20 sneezing / day

**Shirashoola (Headache)**
• Grade - 0  - Absence of shirashoola
• Grade - 1  - Mild headache, occasionally, with low intensity.
• Grade - 2  - a Moderate headache, frequently, but not disturbing the daily routine work.
• Grade - 3  - a Severe headache with restlessness, able to carry out routine work with great difficulty.
• Grade - 4  - a Severe headache which makes patient bedridden, often associated with nausea.

**Kasa (Cough)**
• Grade - 0  - Absence of a cough
• Grade - 1  - an Occasional cough (dry or unproductive)
• Grade - 2  - Moderate Cough (productive with scanty sputum)
• Grade - 3  - a Continuous cough with throat & chest pain (productive with a moderate amount of sputum)
• Grade - 4  - Severe continuous cough with throat & chest pain (productive with large amount of sputum).

**Nature of onset.**
• Grade - 0  - Absence
• Grade - 1  - Attacks mild/patients almost comfortable does not feel any difficulty in resuming his duties during an attack.
• Grade - 2  - Attacks are mild/ patients slightly disturbed can carry out his duties with discomfort.
• Grade - 3 - Attacks are severe, patients though disturbed can carry out simple duties but cannot resume the duties which need some amount of concentration.
• Grade - 4 - Attacks which make patients severely disturbed, inability to resume any of his duties because of sudden attack/resumes duties only on its sudden cessation.

**Frequency of Attack**
Grade - 0 Absence.
Grade - 1 Recurrence of attack within 3 – 6 months.
Grade - 2 Recurrence of attack within 1 – 2 months.
Grade - 3 Recurrence of attack within 15 days.

**RESULTS**
The present clinical study was conducted on 30 diagnosed patients with pratishyaya (allergic rhinitis), who were treated in two groups. The patients were assessed before treatment for the severity of their symptoms and immediately after the completion of the course. The data was systematically collected and analyzed using appropriate statistical test.

The results of the study are as follows

**Table no.1: Showing demographic details of the patients.**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Group A</th>
<th>%</th>
<th>Group B</th>
<th>%</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age (in years)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-30</td>
<td>5</td>
<td>33.33%</td>
<td>3</td>
<td>20%</td>
<td>8</td>
<td>26%</td>
</tr>
<tr>
<td>30-40</td>
<td>5</td>
<td>33.33%</td>
<td>4</td>
<td>26.66%</td>
<td>9</td>
<td>30%</td>
</tr>
<tr>
<td>40-50</td>
<td>3</td>
<td>20%</td>
<td>5</td>
<td>33.33%</td>
<td>8</td>
<td>26%</td>
</tr>
<tr>
<td>50-60</td>
<td>2</td>
<td>13.33%</td>
<td>3</td>
<td>20%</td>
<td>5</td>
<td>16%</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>7</td>
<td>46.66%</td>
<td>10</td>
<td>66.66%</td>
<td>17</td>
<td>57%</td>
</tr>
<tr>
<td>Female</td>
<td>8</td>
<td>53.33%</td>
<td>5</td>
<td>33.33%</td>
<td>13</td>
<td>43%</td>
</tr>
<tr>
<td><strong>Prakruti (constitution)</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Vata Pittaj</td>
<td>4</td>
<td>26.66%</td>
<td>4</td>
<td>26.66%</td>
<td>8</td>
<td>26.67%</td>
</tr>
<tr>
<td>Pitta Kaphaja</td>
<td>2</td>
<td>13.33%</td>
<td>3</td>
<td>20%</td>
<td>5</td>
<td>16.67%</td>
</tr>
<tr>
<td>Vata Kaphaja</td>
<td>3</td>
<td>20%</td>
<td>4</td>
<td>26.66%</td>
<td>7</td>
<td>23.33%</td>
</tr>
<tr>
<td>Kapha Pittaja</td>
<td>2</td>
<td>13.33%</td>
<td>2</td>
<td>13.33%</td>
<td>4</td>
<td>13.33%</td>
</tr>
<tr>
<td>Kapha Vataja</td>
<td>3</td>
<td>20%</td>
<td>2</td>
<td>13.33%</td>
<td>5</td>
<td>16.67%</td>
</tr>
<tr>
<td>Pitta Vataja</td>
<td>1</td>
<td>6.66%</td>
<td>0</td>
<td>0%</td>
<td>1</td>
<td>3.33%</td>
</tr>
<tr>
<td><strong>Diet</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Vegetarian</td>
<td>8</td>
<td>53.33%</td>
<td>7</td>
<td>46.66%</td>
<td>15</td>
<td>50%</td>
</tr>
<tr>
<td>Mixed</td>
<td>7</td>
<td>46.66%</td>
<td>8</td>
<td>53.33%</td>
<td>15</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Nature Of Work</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee</td>
<td>5</td>
<td>33.33%</td>
<td>4</td>
<td>26.66%</td>
<td>9</td>
<td>30%</td>
</tr>
<tr>
<td>Labour</td>
<td>3</td>
<td>20%</td>
<td>5</td>
<td>33.33%</td>
<td>8</td>
<td>26%</td>
</tr>
<tr>
<td>Student</td>
<td>2</td>
<td>13.33%</td>
<td>1</td>
<td>6.66%</td>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>Housewife</td>
<td>3</td>
<td>20%</td>
<td>2</td>
<td>13.33%</td>
<td>5</td>
<td>17%</td>
</tr>
<tr>
<td>Agriculture</td>
<td>2</td>
<td>13.33%</td>
<td>3</td>
<td>20%</td>
<td>5</td>
<td>17%</td>
</tr>
</tbody>
</table>
In the present study, 08 patients were in the 20-30 & 40-50 years of age group each. 9 in 30-40 years of age group and 5 patients in 50-60 years of age group. Out of 30 patients, 17 were male and 13 were female. There were equal patients having diet habit of vegetarian and mixed diet. Based on nature of work 5 patients were an employee, 3 were labors, 2 patients were students and 2 had agriculture work. 3 patients were a housewife.

**Overall Results of therapy in both groups**

Table No. 2: Showing Statistical details of the Variables.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Groups</th>
<th>Mean BT</th>
<th>Mean AT</th>
<th>Mean difference</th>
<th>% of Improvement</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nasal Congestion</td>
<td>Group A</td>
<td>2.8</td>
<td>1.53333</td>
<td>1.2667</td>
<td>1.4</td>
<td>45.24%</td>
</tr>
<tr>
<td></td>
<td>Group B</td>
<td>2.9333</td>
<td>1.5333</td>
<td></td>
<td>1.4</td>
<td>47.73%</td>
</tr>
<tr>
<td>Nasastrava (Rhinorrhea)</td>
<td>Group A</td>
<td>2.4666</td>
<td>1.1333</td>
<td>1.3333</td>
<td>1.4</td>
<td>54.05%</td>
</tr>
<tr>
<td></td>
<td>Group B</td>
<td>2.8</td>
<td>1.3333</td>
<td></td>
<td>1.4</td>
<td>52.38%</td>
</tr>
<tr>
<td>Kshavathu (Sneezing)</td>
<td>Group A</td>
<td>2.2667</td>
<td>0.8666</td>
<td>1.4</td>
<td></td>
<td>61.76%</td>
</tr>
<tr>
<td></td>
<td>Group B</td>
<td>2.7333</td>
<td>1.4</td>
<td></td>
<td></td>
<td>48.78%</td>
</tr>
<tr>
<td>Shirashoola (Headache)</td>
<td>Group A</td>
<td>3.2</td>
<td>1.2666</td>
<td>1.9333</td>
<td></td>
<td>60.42%</td>
</tr>
<tr>
<td></td>
<td>Group B</td>
<td>2.8666</td>
<td>1.3333</td>
<td></td>
<td></td>
<td>53.49%</td>
</tr>
<tr>
<td>Kasa (Cough)</td>
<td>Group A</td>
<td>2.7333</td>
<td>1.2667</td>
<td>1.466</td>
<td></td>
<td>53.66%</td>
</tr>
<tr>
<td></td>
<td>Group B</td>
<td>3</td>
<td>1.4</td>
<td></td>
<td></td>
<td>53.33%</td>
</tr>
<tr>
<td>Nature of onset</td>
<td>Group A</td>
<td>2.1333</td>
<td>0.8</td>
<td>1.3333</td>
<td></td>
<td>62.50%</td>
</tr>
<tr>
<td></td>
<td>Group B</td>
<td>2.6</td>
<td>1.2667</td>
<td></td>
<td></td>
<td>51.28%</td>
</tr>
<tr>
<td>Frequency of Attack</td>
<td>Group A</td>
<td>2.4</td>
<td>0.46667</td>
<td>1.9333</td>
<td></td>
<td>80.56%</td>
</tr>
<tr>
<td></td>
<td>Group B</td>
<td>2.6</td>
<td>1.2667</td>
<td></td>
<td></td>
<td>51.28%</td>
</tr>
</tbody>
</table>

Effect of group A on Nasal Congestion showed 45.24% whereas group B showed 47.73% improvement. Effect of group A on Nasastrava (Rhinorrhea) showed 54.05% & group B 52.38% improvement. Effect of group A on Kshavathu (Sneezing) showed 61.76% & group B showed 48.78% improvement. Effect of group A on Shirashoola (Headache) showed 60.42% & group B showed 53.49% improvement. Effect of group A on Kasa (Cough) showed 53.66% & group B 53.33% improvement. Effect of group A on Nature of onset showed 62.50% whereas group B showed 51.28% improvement. Effect of group A on Frequency of Attack showed 80.56% whereas group B showed 51.28% improvement.

**Comparison of Group A and Group B**

As p value>0.05 for comparison of two groups based on the parameters of Nasal Congestion, Nasastrava (Rhinorrhea), Shirashoola (Headache) and Kasa (Cough), it was found that there was no statistically significant difference between two groups. But as p value<0.05 for comparison of two groups based on the parameters of Kshavathu (Sneezing), Nature of onset & Frequency of Attack, it was studied that there was statistically significant difference.
between two groups, Group A was more effective related to *Kshavathu (Sneezing)*, *Nature of onset & Frequency of Attack* than Group B

**DISCUSSION**

**Age & Sex**

Usually, the symptoms occur during childhood to adults, more commonly in teenage and tend to reduce after the age of 50, probably during these years the exposure to the allergens is very high. It was found that 26% & 30% belonged to age group of 20-30 years & 30-40 years respectively, whereas 16.67% was above 50 years age group, suggestive of reducing the trend of the disease condition with increasing age.

Generally, both sex is equally affected by pratishyaya (allergic rhinitis). But there were higher no. of male patients i.e. 57% and 43% were females, which may be due to more exposure rate in males to the allergens.

**Prakruti**

Prakruti also plays an important role in the causation of pratishyaya. In this study, it shows that vata & Kapha predominant prakruti patients suffered more with pratishyaya as compared to other prakruti.

**Nature of work**

In present study based on the observation more incidence in employees, labor & housewife was seen which might be due to daily exertion and exposure to dust, wind, the atmosphere where they are working and other triggering factors around them.

**Ahara (diet)**

The study shows the equal percentage of patients consuming vegetarian and mixed diet, which suggests that there is no direct relationship of diet with the onset of pratishyaya (allergic rhinitis).

**Nasal Congestion**

Effect of group A on *Nasal Congestion* showed 45.24% whereas group B showed 47.73% improvement. There was no statistically significant difference between Group A and Group B. Jalaneti clears the nasal cavity and removes dirt particles, excess mucus, allergens and microbes from the nose and sinuses. Pranayama helps in improving the functions of
respiration. Whereas Nasya lubricates nasal mucosa and sinuses. Hence, reduces nasal congestion

**Nasastrava (Rhinorrhea)**

Effect of group A on *Nasastrava (Rhinorrhea)* showed 54.05% & group B 52.38% improvement. Jalaneti helps to cleanse the nasal passage giving immediate relief from symptoms of running nose. Pranayama helps soothing up the respiratory functions. Nasya helps reduce the antigen-antibody reactions thereby reducing the symptom of rhinorrhea.

**Kshavathu (Sneezing)**

Effect of group A on *Kshavathu (Sneezing)* showed 61.76% & group B showed 48.78% improvement. Jala neti removes all the mucus from the blocked nasal passages, which helps to breathe easily and carry more oxygen to your lungs, without any obstruction. Similar actions are observed with pranayama, which clears the nasal passage for clear breathing which in turn reduce the symptom of kshavathu i.e. sneezing.

**Shirashoola (Headache)**

Effect of group A on *Shirashoola (Headache)* showed 60.42% & group B showed 53.49% improvement. Reduced nasal congestion and nasastrava helps to clear the sinuses thereby reducing the headache.

**The frequency of Attack**

Effect of group A on *Frequency of Attack* showed 80.56% whereas group B showed 51.28% improvement. Jalaneti cleans the nasal passage and removes dirt particles, excess mucus, allergens and microbes from the nose and sinuses. Hence, it reduces nasal congestion, infections of sinuses, and chronic coryza.

**Overall effect**

Overall results in both groups based on the parameters of *Nasal Congestion, Nasastrava (Rhinorrhea), Shirashoola (Headache) and Kasa (Cough)*, there was almost similar results noted. Whereas based on the parameters of *Kshavathu (Sneezing), Nature of onset & Frequency of Attack*, it revealed that group A i.e. jalaneti & pranayama showed better results than Group B.
CONCLUSION

Allergic Rhinitis, occurring mostly due to commonly found allergens in surroundings, is an inflammatory condition of the nasal membranes, characterized by sneezing, nasal congestion, nasal itching, and rhinorrhea, etc. has close resemblance with pratishyaya mentioned in Ayurvedic classics. Allergic rhinitis is one of most common allergic diseases worldwide in which patients are not satisfied with their current treatment. Jalaneti cleanses the nasal passage and improves the sensitivity of the nasal mucosa to allergens so as to reduce the frequency of disease recurrence. Pranayama a breathing technique helps in improving the functions of the respiratory system, which is worst affected by allergic rhinitis. Jalaneti and Pranayama a combined therapy of Yoga hold good in relieving the disease conditions as well help to fight with the onset of attacks in future thereby creating a self-confidence in patients and improving the defense systems of the body as a whole.

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