MANAGING ALLERGIC RHINITIS THROUGH AYURVEDA: A CASE REPORT

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ABSTRACT
Allergic Rhinitis is due to an immediate hypersensitivity reaction to nasal mucosa. This is a disorder in which there are episodes of nasal congestion, watery nasal discharge and sneezing. Pratishyaya is one of the Urdvajathrugata vikara which is mostly caused by the influence of Dooshivisha. Vata and Kapha are said to be the predominant Doshas involved in the manifestation of this condition. In Ayurveda concept of allergy is scientifically explained under Asatmyaja Vyadhi while its effects are explained in hereditary, Viruddhahara, dushivisha & ritu sandhi. Many of the modern remedies in this regard are probably effective but on chronic usage cause dependence, side effects and poor performance in the prescribed dosage. Ayurveda can provide a suitable answer through Nasya Karma useful in the treatment of Pratishyaya. The treatment was aimed at pacifying aggravated Vata and Kapha Dosha by using herbo-mineral formulation. Significant improvement was noticed after one-month treatment. The result produced was encouraging enough not only on the assessment parameters, but also helped to gain resistance against allergens, repeated attacks and promoted immunity, physical and mental health of the patient.

Keywords: Allergic Rhinitis, Vataj Pratishyaya, Nasya Karma.

INTRODUCTION
Rhinitis is the condition in which the mucous membrane of the nose is inflamed. Allergic Rhinitis is an immunoglobulin IgE mediated type 1 hypersensitivity inflammatory disease. It is a type of inflammation in the nasal mucosa, paranasal sinuses and sometimes mucosa of the lower respiratory tract which occurs when the immune system overreacts to allergens in the air. When an allergen such as pollen or dust is inhaled by an individual with a sensitized immune system, triggering antibody production. These antibodies often bind to histamine-containing mast cells. When the mast cells are stimulated by pollen and dust, histamine (and other chemicals) are released. This causes running nose, sneezing, red, itchy, and watery eyes, and swelling around the eyes. Allergic Rhinitis is an acute, recurrent and episodic disease. In the World, more than 20-30% of the population is reported to be afflicted with Allergic Rhinitis. It is most popular among the ages of twenty-four. Rhinitis significantly affects the quality of life of affected individuals, and also constitutes a huge financial burden to society.

Acharya Sushruta In Uttaranstantra, has devoted one separate chapter to Pratishyaya after explaining Nasagataroga. Pratishyaya is one of the Urdvajathrugata vikara which is mostly caused by the influence of Dooshivisha. Vata and Kapha are said to be the predominant Doshas involved in the manifestation of this condition. It is classified into five types on the pathological basis viz. Vataja, Pittaja, Kaphaja, Raktaja and Sannipataja. Vataja Pratishyaya is most common affecting all age group of either sex. It is well known for its recurrence and chronicity. The signs, symptoms and etiological factors are more similar to Allergic Rhinitis. It is one of the diseases in which the inflammation of the mucous membrane of the nose is observed and it is characterized by Nasasrava, Nasavarodha, Kshavathu, Shirashoola, Swasavarodha, etc.

Classification
Allergic Rhinitis is often classified into two types; viz, Seasonal and perennial.

Seasonal Allergic Rhinitis - Seasonal antigens include pollens from grasses, flowers, weeds or trees. Grass pollen is responsible for hay fever. Allergic Rhinitis due to pollens is however a worldwide problem which may be aggravated during harvest seasons.
Perennial Allergic Rhinitis - Perennial Allergic Rhinitis is caused by allergens which are present in the environment throughout the year. It is usually caused by home or workplace airborne pollutants, while symptoms of perennial Allergic Rhinitis worse after spending time indoors. These are usually indoor allergens such as homes – dust, mites, animal dander, feathers, fungal spores and cockroaches. The term Vasomotor Rhinitis is used because in this context the term allergic is misnomer. Other potential causes of perennial Allergic Rhinitis are- Cigarette smoke, Perfume, Cleansers, Copier chemicals, Industrial chemicals and Construction material, gases etc.

The factors which predispose the tissues to allergy may be classified in the following way- hereditary (the most important single factor) and constitution, infection and intoxication, endocrine factors, factors interfering with the chemical and physical resistance of the skin or mucous membranes, trauma, meteorological, seasonal and psychological conditions.

Although innumerable preparations are available in contemporary sciences, no drug ensures total relief without any side effects and the chances of recurrences are relatively high. The treatment modalities according to modern medical Science are administration of anti – histamines, nasal decongestants, steroids, submucosal diathermy and turbinectomy. In Ayurveda, while treating Pratishyaya, special attention should be given to the stages of the disease because the treatment approach of Amavastha, Pakwavastha and Dushtha stages are entirely different. It includes Snehapana, Swedana, and Shodhana. Shirovirechana has been advocated in Pratishyaya by nearly all Acharyas. However, Nasya has been contraindicated in Nava Pratishyaya. Shirovirechana is itself of two variety Pradhamana and Avapida. The points to be considered during the treatment are - repeated attack of disease due to exposure to the allergens, long standing nature of the disease, puts the patient in an immuno-compromised state, physical condition of the patient, long term drug administration and diet restriction make the patient weak. Improper management of Pratishyaya leads to a severe and complicated condition called Dushta Pratishyaya which is very difficult to treat and causes many complications like Badhirya, Andhata, and Ghrananasa etc. Pathya- Apathya described for the disease will improve the quality of life and immunity. So, there is a need to have safe, effective, easily available treatment modality to treat this common respiratory problem.

### CASE REPORT

A 42-year-old male patient visited Department of Shalakya Tantra, Bharti Ayurved Medical College & Hospital, Durg with chief complaints of Kshavatu (Sneezing), Nasavarodha (Nasal obstruction), Nasa srava (Nasal discharge), Kasa (coughing), Shira shoola (Headache), Kandu (Itching) and Bhutwa (Recurrent attack) for last 2 years. Patient has Aruchi, Mukhashosha, Svarabheda, Jwara, Pandu, Shirogaurava, shwasa, Gandhani as associated symptoms. The patient experiences these symptoms annually around this same time of year, adding that he is also suffering from irritated, itchy eyes and a sore throat. Patient had repeated episodes of intense itching of her eyes and nose and a tickling sensation in his ears and palate, followed by sneezing and rhinorrhea. It took slightly longer to resolve every episode and some were followed by a dry cough. He had an episode of shortness of breath while wheezing on a day when his nasal symptoms were severe, but this episode resolved spontaneously and has not recurred. The symptoms are so bothersome that they are interrupting his sleep at night and causing daytime drowsiness. Over-the-counter oral antihistamines help his symptoms a little, as do nasal decongestants, which he uses occasionally.

### History of Present Illness

1. **Sneezing:** 3-4 times a day
   a) Number of sneezing at a time: 15-20
   b) Nature of sneezing: Early morning & evening
   c) Season: Annual
   d) Atmosphere: Cool, Moist & Smoky
   e) Miscellaneous: Smell, cold water bath & food induce

2. **Nasal obstruction:** Unilateral (Left side), Continuous at night

3. **Nasal discharge:**
   a) Nature: Thick & Mucoid
   b) Color: Transparent & White
   c) Quantity: Mild
   d) Smell: Foul smell

4. **Coughing:** Continuous

5. **Headache:**
   a) Site: Frontal & Whole
   b) Nature: Moderate
   c) Rhythm: Continuous

6. **Itching:** Eyes/Nose & Throat

7. **Frequency:** Sudden onset relieved with medication
**Personal History** – Patient had taken a mixed type of diet, Madhur rasa dominance, moderate appetite, Madhyam Kostha, regular bowel habits. Patient had disturbed sleep due to coughing. He is doing less and irregular exercise. He had a chronic addiction of smoking for 6 years and taking sleeping pills regularly. He is doing his own business, shop owner of grain grocery. He works for 12 hours a day and his nature of work is moderate type. Previously he was taking over-the-counter medication for his symptoms.

**Vitals**
- Respiratory rate: 24/min, Regular
- Temperature: 101°F
- Blood pressure: 130/90 mm of Hg
- Pulse: 104/min

**Physical Examination:**
- Weight - 70 kg
- Height - 168 cm
- Body mass index (BMI) - 24.8 kg/m2
- Pallor - No pallor
- Lymphadenopathy - No lymphadenopathy

**Examination of Eye** – No conjunctival infection, frequent rubbing of the eyes, irritability, lacrimation and mucous discharge.

**Examination of Nose**-
1) Inspection: Swelling of the nasal mucosa, thin secretions.
2) Anterior Rhinoscopy – Lower and anterior part of septum, middle turbinate appears red, floor of the nose becomes red, mucosa red, septum normal.
3) Obstruction of nose/ Nasal Patency- No nasal polyps.

**Examination of Ear:**
- a) EAC: Normal
- b) Tympanic Membrane: Normal

**Examination of sinus:** Facial tenderness on palpation of the sinuses

**Examination of throat:** Posterior oropharynx is moist, mucous accumulation in the back of the nose and throat, no sign of inflammation.

**Examination of Neck:** No swollen lymph nodes.

**Laboratory & Radiological Investigation**
- Hb% - 12.8gm%
- TLC – 5800/cu mm
- Neutrophils - 63%, Lymphocytes - 29%, Monocytes - 3 %, Eosinophil - 5, Basophils - 0
- Platelet count – 176 k/uL
- ESR – 18 mm/hour
- Absolute Eosinophil count – 675 /cu.mm
- BS (Random) - 158 mg/dl.
- X-ray chest (PA view) – Normal study.
### Instrumentation:

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Score</th>
<th>Symptom</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nasavarodha (Nasal Obstruction)</td>
<td>Tanu Srava (Watery discharge)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Obstruction</td>
<td>0</td>
<td>No discharge</td>
<td>0</td>
</tr>
<tr>
<td>Partially Occasional &amp; Unilateral</td>
<td>1</td>
<td>Negligible discharge</td>
<td>1</td>
</tr>
<tr>
<td>Partially Occasional &amp; Bilateral</td>
<td>2</td>
<td>Intermittent discharge</td>
<td>2</td>
</tr>
<tr>
<td>Complete, Frequently &amp; Unilateral</td>
<td>3</td>
<td>Continuous discharge</td>
<td>3</td>
</tr>
<tr>
<td>Always Complete &amp; Bilateral</td>
<td>4</td>
<td>Profuse discharge</td>
<td>4</td>
</tr>
<tr>
<td>Kshavathu (Sneezing)</td>
<td>Swarbhedha (Hoarseness of voice)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>No change of voice</td>
<td>0</td>
</tr>
<tr>
<td>1-5 bouts per day</td>
<td>1</td>
<td>Occasional hoarseness of voice</td>
<td>1</td>
</tr>
<tr>
<td>6-10 bouts per day</td>
<td>2</td>
<td>Frequent hoarseness of voice in morning hours</td>
<td>2</td>
</tr>
<tr>
<td>11-20 bouts per day</td>
<td>3</td>
<td>Frequent hoarseness of voice throughout the day</td>
<td>3</td>
</tr>
<tr>
<td>More than 21 bouts per day</td>
<td>4</td>
<td>Cannot speak due to hoarseness of voice</td>
<td>4</td>
</tr>
<tr>
<td>Shirashoola (Headache)</td>
<td>Post Nasal Discharge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>Not Present</td>
<td>0</td>
</tr>
<tr>
<td>Occasional</td>
<td>1</td>
<td>Occasional Present</td>
<td>1</td>
</tr>
<tr>
<td>Intermittent</td>
<td>2</td>
<td>Frequent Discharge</td>
<td>2</td>
</tr>
<tr>
<td>Continuous</td>
<td>3</td>
<td>Continuous Discharge</td>
<td>3</td>
</tr>
<tr>
<td>Intolerable</td>
<td>4</td>
<td>Continuous Heavy Discharge</td>
<td>4</td>
</tr>
<tr>
<td>Spatula Test</td>
<td>Anterior Rhinoscopic Findings (Color of mucosa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patent (RT &amp; LT, Bilateral)</td>
<td>0</td>
<td>Pink (Normal)</td>
<td>0</td>
</tr>
<tr>
<td>Partial Block</td>
<td>1</td>
<td>Red (Inflamed)</td>
<td>1</td>
</tr>
<tr>
<td>Complete Block</td>
<td>2</td>
<td>Cherry Red / Blue (Blood stained)</td>
<td>2</td>
</tr>
</tbody>
</table>

### Treatment Schedule:

The patient was treated in the OPD of the Shalakya department and treatment was planned considering involved Dosha and Dushya. Nasya was planned for 7 days that was preceded by Gandush Dharan.

Internally, the following treatment was administered –

1. Snehan – Mridu abhyanga with Ksheerabala Taila [Ashtanga Hridaya, Vatarakta chikitsa adhyaya 22/44] (Bala, Ksheera, Tila taila) was done on scalp, forehead and over neck regions for 3-5 minutes.
2. Swedan – Bhashpa Swedan for 2-3 minutes.
3. Nasya Karma – Navan Nasya with Shadbindu Taila [Bhaishajya Ratnavali Shirogadhidhikar 49-51] (Murcchita Tila Taila, Aja Ksheer, Bhringaraj, Erand, Tagara, Shathava, Jivanti, Rasna, Saindhav, Bhringa, Vidang, Yasti, Sunthi). 6 drops of lukewarm oil was instilled into each nostril by using the dropper daily for 7 days in the morning.
5. Oral Medication –
   a. Laxmivilas Rasa (Nardiya) [Bhaishajya Ratnavali Jwara Chikitsa 1223-1235]- (Abhrak bhasma, Shuddha parad, Gandhak, Karpura, Jaiphala, Javitri, Vidhara, Shuddha dhatura beej, Shuddha ganja beej, Vidarikand, Shatavari, Nagabala, Gokshura, Jalavetas beej, Nagarvel paan) 125 mg/ tablet, 1 tablet thrice daily with honey for 30 days.
OBSERVATIONS & RESULTS

After completion of one-month treatment and follow up for 2 months clinical assessments were made from the interrogation with patient and assessment of objective parameters. The outcome observed was a drastic change in the parameters as:

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>BT</th>
<th>AT (after 7 days)</th>
<th>AT (30 days)</th>
<th>First Follow Up (after 39 days)</th>
<th>Second Follow Up (after next 30 days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nasavarodha (Nasal Obstruction)</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Tanu Srava (Watery discharge)</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Kshavathu (Sneezing)</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Swarbhedha (Hoarseness of voice)</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Shishrshoola (Headache)</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Post Nasal Discharge</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Spatula Test</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Anterior Rhinoscopic Findings</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

DISCUSSION

Allergic Rhinitis is a disease which hampers the quality of life and disturbs the daily activities of the person. The incidence rate of this disease is increasing day by day due to the increased environmental pollution, stressful life and decreased immunity of the person. At this stage, if Allergic Rhinitis is not treated, it may lead to infection resulting in various complications. Allergic Rhinitis is caused due to smoke, dust, allergy, atmospheric pollution, change in humidity and psychological factors. The features of Allergic Rhinitis mentioned in Allopathic Science are Sneezing, Nasal Obstruction, Watery Nasal Discharge, Change in Voice, Headache, Dryness of throat and lips.

Vataja Pratishyaya is a Nasagata roga described in detail in Ayurvedic classics in which there is vitiation of Vata and Kapha doshas resulting in Kshawathu (profuse sneezing), Nasasvarodha (nasal obstruction), Jalaja Nasa (watery nasal discharge), Gala Talu Shushkata (dryness of the throat and lips), Swaropaghata (change in voice), Shirashoola (headache). It can be co – related with the disease Allergic Rhinitis mentioned in modern science. The allergens which are inhaled releases newly formed or preformed mediators, which leads to the causation of:

1. Increased vascular permeability and vasodilation followed by tissue oedema and nasal blockage.
2. Change in smooth muscle tone followed by Bronchospasm.
3. Hyperactivity of glands followed by increased secretion and rhinorrhoea.

Locally Nasya may act as Sravahara, Shothahara, Srotoshodhana. The purva karma like snehana, swedana pacify Vatadosha. The Nasya Karma, instillation of medicine into the nose acts as Srotoshodhana and it is a way of vyadhpriyanik chiikitsa. Tila is Madhura rasa with Guru, Snidgha guna and Ushna veerya and has a vatahara effect. Doshagnata is Vataashamaka, kaphapitta prakopaka. Tila taila has the capacity to transform itself so as to imbibe all the qualities of the substances. The Tila Tala with the Shadbindu taila components forms an oleous layer on the Nasal mucosa, gives stamina to it and prevents the entry of allergens. It therefore helps in arresting the disease. Shunti and Vidang are Teeksha and act as Kaphanissaraka, Srotoshodaka, Vatashamaha. The Rooksha guns of these medicines functions as Sravahara. The Ushna veerya of Tagara, Erand helps in pacifying Vata and Kapha doshha. The rasayana property of Bringaraja, Madhuyashti, Aja Ksheer helps to revitalize Sleshmavarana kala of nasa. It acts as anti-inflammatory and anti-microbial which prevents nasal and sinus infections. It also relieves headache.

The oral medication helps in building the immune system of the body because in Allergic Rhinitis, the immune system responds with resistance against the allergens. This anti–histamine property helps in controlling the symptoms that are produced by the histamine which is released when the allergen is inhaled. The antioxidant property of Haridra scavenges the free radicals and thus enhances the body immunity and thereby prevents further recurrences of the disease to a great extent. The anti–bacterial property of Laxmivilas Rasa helps in prevention of secondary infection. The drug has strong antiseptic and disinfectant properties especially against Streptococcus and Staphylococcus. Most of the drugs used for the treatment are having katu rasa, ushna veerya and teeksha guna. These drugs produce draveekarana (liquification) and chedana (expulsion) of the vitiated doshas there by relieving the nasal obstruction, discharge and other features of the disease. As per the above classical description of the drugs, it can be inferred that the drugs are having Vatakaphahara, Brumhana, Vatanulomana, Snehana, Shothahara, Sravahara properties hence is capable of removing the kapha avarana in addition helps in Vatashanana and promote vata svamarga pravritti thus capable of controlling Allergic Rhinitis. So, the Nasya Karma and other oral medication helps in relieving symptoms of sneezing and congestion in the nose and thus help in relieving the patient from sneezing and watery nasal discharge.
CONCLUSION

Allergic Rhinitis, if untreated can lead to bronchial asthma, recurrent middle ear infections, sinusitis and chronic cough. The case study has revealed a remarkable efficacy in Allergic Rhinitis with a significant result in most of the assessment criteria. The symptoms score did not worsen and was maintained. This was pilot study to evaluate the efficacy of Nasya karma and some oral medication in the management of Allergic Rhinitis and the result produced was encouraging enough not only on the assessment parameters, but also helped to gain resistance against allergens, repeated attacks and promoted immunity, physical and mental health of the patient. It is advisable to conduct this particular study on a larger number of samples for a greater span of time to draw more concrete conclusions.

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