The effect of PKG tablet and Goghruta Nasya in Allergic Rhinitis (*Vataja Pratishaya*)
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**ABSTRACT**

Allergic Rhinitis is the inflammation of the lining of the nose caused by allergy. The symptoms include runny nose, sneezing, nose, roof of the mouth and ears may be itchy. It can occur due to air borne allergens such as pollens of all types, house dust mites, spores or when you eat spices or hot drinks or caffeine, or when exposed to irritant chemicals such as tobacco, smoke or perfume. In Ayurveda it is compared with *Vataja Pratishaya*. According to Ayurveda imbalance of Tridoshas results in the manifestation of disease. So present study was undertaken with the tablet of Guduchi, Kantakari and Pippali along with Nasya of Goghruta for period of 3 months. A significant relief in symptoms of Allergic rhinitis were noted.

**Key words:** Allergic Rhinitis, *Vataja Pratishaya*, PKG Tablet, Goghruta Nasya.

**INTRODUCTION**

Allergic Rhinitis is an allergic reaction that occurs when your immune system over reacts to substances that you have inhaled (often pollen). The two types of allergic rhinitis are seasonal allergic rhinitis (hay fever) and perennial allergic rhinitis, which occurs year-round. Hay fever is caused by outdoor allergens and perennial allergic rhinitis and indoor allergens (such as dust, mites, pet dander, mold).[1]

Symptoms of allergic rhinitis resemble a cold, but they are not caused by a virus. When you inhale an allergen, your immune system springs into action, releasing substances known as IgEs into your nasal passages, along with inflammatory chemicals such as histamines. Your nose, sinuses, or eyes may become itchy and congested. Scientists aren’t sure what causes your immune system to overreact to an allergen.[2]

Allergic rhinitis is a common condition, affecting about 1 in 5 Americans. Symptoms can be mild or severe. Many people who have allergic rhinitis also have asthma.[3]

Allergic rhinitis from an Ayurvedic perspective is due to the toxins present in the body (ama) and due to the low immunity. *Ama* aggravates the levels of *Pitta* and *Kapha* in the body, giving rise to different symptoms of allergies. Ayurveda consider this as a *Kapha-Pitta* disorder. Symptoms are *Nasanaha* (nose block), *Kaphasruti* (rhinorrhoea), *Kshava* (sneezing).[4],[5]

There is no specific treatment for allergic rhinitis in modern science. Available treatment for allergic rhinitis includes Anti histamines, Decongestants, Immuno therapy. It gives temporary relief and includes side effects such as drowsiness, dryness of nasal mucosa, generalized weakness, etc. So we require such medicine which not only reduces symptoms but also increases immunity and improve the quality life of the patient, which is cost effective and easily available.[6]
OBJECTIVES
To put forth the effect of Ayurvedic management in Allergic Rhinitis (Vataja Pratishaya) in such a way that it should be convincing and acceptable to the medicos of the modern era.

MATERIALS AND METHODS
Study type - Open clinical trial

Study centre - Dr.D.Y.Patil Ayurvedic Hospital, Nerul, Navi Mumbai.

Sample size - 100 patients

Study duration - 3 months

Statistical evaluation - The statistical evaluation of study was conducted with appropriate statistical test.

Selection of Patients
Uncomplicated patients with characteristic symptoms and signs of Allergic Rhinitis (Vataja Pratishaya)\(^7\) irrespective of sex, religion, education, occupation etc. were selected.

Inclusive Criteria
1. Age Group: 20 to 60 years.
2. Sex: both male and female.
3. Physical examination and clinically significant abnormal laboratory investigation at the pre-study.

Exclusive Criteria
1. Patient below 20 years and above 60 years.
2. Congenital defects and disorders.
3. Patient having severe cardiovascular, gastrointestinal and renal disease.
5. Pregnant and Lactating women.

Subjective Parameters

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>No - 0</th>
<th>Mild -</th>
<th>Moderate -</th>
<th>Severe -</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sneezing</td>
<td>No Sneezing</td>
<td>Sneezing</td>
<td>Sneezing</td>
<td>Sneezing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3-4</td>
<td>10-</td>
<td></td>
</tr>
</tbody>
</table>

Laboratory Investigations
1. CBC
2. ESR

Ingredients of oral medicine
SOP of PKG Tab contains
1. Guduchi (Tinospora cordifolia)
2. *Pippali* (Piper longum)
3. *Kantakari* (Solanum Xanthocarpum)

Each 500mg tab contains *Guduchi* 250mg, *Pippali* 125mg, *Kantakari* 125mg

**Mode of administration** - oral  
**Dose** - 1gm TDS (2 tab thrice a day)  
**Anupana** - *Koshna Jala*  
**Aushada Sevana Kaala** - After food  
**Nasya** - *Goghruta* - 4 drops in each nostril in morning

**Duration of Treatment**  
**Oral medications** - for 3 months  
**Nasya** - for 3 months  

The raw material for study is purchased from the local market certified by Dravya Guna Dept of Dr. D.Y.Patil School of Ayurveda.

All powders are mixed in given quantity. After homogenous mixing, sufficient quantity of gum acacia is added for binding purpose. Full mixed material is sent for manufacturing of tablets. All the manufacturing procedure was conducted in Rasashastra Dept. of Dr.D.Y.Patil School of Ayurveda, Nerul. Tablets are packed and stored in air tight containers.

**Assessment of total effect of therapy**

**Criteria for assessment**

<table>
<thead>
<tr>
<th>Result</th>
<th>Criteria for assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cured</td>
<td>Complete relief (100%) in signs and symptom of Vataja Pratishaya, was taken as cured</td>
</tr>
<tr>
<td>Moderate relief</td>
<td>Patients with improvement of more than 60% in sign and symptoms, were taken as moderately relieved</td>
</tr>
<tr>
<td>Mild relief</td>
<td>Patients with improvement in between 30-60% in sign and symptoms were considered as mild relief.</td>
</tr>
<tr>
<td>Unchanged</td>
<td>No change or less than 30%</td>
</tr>
</tbody>
</table>

**OBSERVATIONS AND RESULTS**

100 patients of either sex in the age group of 20-60 years of Allergic rhinitis (*Vataja Pratishaya*) were selected as per the selection criteria, underwent physical and pathological examination. Patients - received PKG tab dose of 1gm (2 tablets) three times daily for 3 months along with *Goghruta Nasya*.

Patients were followed up every 15 days for 3 months and laboratorial investigations was done on initial day and 90th day.

**The Symptoms Score was compared Before and After Treatment**

There were 60 males and 40 females. Almost all the patients had sneezing, running nose and other associated symptoms. All the patients were examined clinically at every follow up, and analysis was carried out at 3 months.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Before treatment</th>
<th>After treatment</th>
<th>P</th>
<th>T</th>
<th>significance</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sneezing</td>
<td>1.76</td>
<td>0.06</td>
<td>0.00</td>
<td>0.01</td>
<td>extremely significant</td>
<td>8.4%</td>
</tr>
<tr>
<td>Runny nose</td>
<td>1.78</td>
<td>0.06</td>
<td>0.00</td>
<td>0.01</td>
<td>extremely significant</td>
<td>8.4%</td>
</tr>
<tr>
<td>Dry cough</td>
<td>1.58</td>
<td>0.05</td>
<td>0.00</td>
<td>0.01</td>
<td>extremely significant</td>
<td>8.8%</td>
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</table>
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<table>
<thead>
<tr>
<th>Symptoms</th>
<th>0 day</th>
<th>15 day</th>
<th>30 day</th>
<th>60 day</th>
<th>90 day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sneezing</td>
<td>100%</td>
<td>100%</td>
<td>70%</td>
<td>40%</td>
<td>10%</td>
</tr>
<tr>
<td>Runny nose</td>
<td>100%</td>
<td>80%</td>
<td>50%</td>
<td>20%</td>
<td>5%</td>
</tr>
<tr>
<td>Dry cough</td>
<td>100%</td>
<td>90%</td>
<td>60%</td>
<td>10%</td>
<td>-</td>
</tr>
<tr>
<td>Itchy mouth, throat, ears and face</td>
<td>100%</td>
<td>80%</td>
<td>50%</td>
<td>10%</td>
<td>-</td>
</tr>
<tr>
<td>Headache</td>
<td>80%</td>
<td>40%</td>
<td>10%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Fatigue</td>
<td>70%</td>
<td>40%</td>
<td>20%</td>
<td>10%</td>
<td>-</td>
</tr>
</tbody>
</table>

**DISCUSSION**

Allergic rhinitis (Vataja Pratishaya) is a common health hazard and no corner of the world have unaffected in developing and undeveloping countries. The management of Allergic rhinitis (Vataja Pratishaya) in effective manner has always been a challenge to modern and Ayurvedic Physician world over Goghruta Nasya with PKG Tab orally is very effective and not having any toxic effect.

During this study it was observed that the Goghruta Nasya with PKG Tab orally, produce significant symptomatic progressive relief (Sneezing - 84.09%, Running Nose - 84.26%, Headache - 74.60%, Dry Cough - 88.60%, Fatigue - 81.15%.)
During this clinical study Goghruta Nasya with PKG Tab orally treatment it does not required hospitalization or any special technique and hence patients social, psychological and economic status is not disturbed. During this clinical study we have not found any significant changes in hematological analysis.

**Probable mode of action of PKG Tablet.**

<table>
<thead>
<tr>
<th>Ras a</th>
<th>Vir ya</th>
<th>Vip aka</th>
<th>Dosha ghnta</th>
<th>Chemical Constituent</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pippali (Piper longum)</td>
<td>Kat u</td>
<td>Us hn a</td>
<td>Ma dh ur</td>
<td>Kapha vataha ra</td>
<td>Piperin, Sesamin, B-sitosterol, Pipernonaline</td>
</tr>
<tr>
<td>Kantakari (Solanum Xanthocarpum)</td>
<td>Kat u</td>
<td>Us hn a</td>
<td>Kat u</td>
<td>Kapha vataha ra</td>
<td>B-carotene, Disgenin, Carpesterol, Solasodine, Solamargine</td>
</tr>
<tr>
<td>Guduchi (Tinospora cordifolia)</td>
<td>Tikt a</td>
<td>Us hn a</td>
<td>Ma dh ur</td>
<td>Tridos hahar a</td>
<td>palmatin, berberine, tinocordifolioside</td>
</tr>
</tbody>
</table>

**Pippali** - Pippali helps in carrying out easy expectoration and removes obstruction to movement of Prana. Its petroleum extract produces analeptic potency due to central nervous stimulation. Alkaloid Piperine is better than Nikethamide in counter acting respiratory depression. [8]

**Kantakari** - It eliminates Kapha obstructing Pranavaha Srotas by its Katu Tikta Rasas and Ushna Virya and also it does Anuloman of Prana Vayu. It has been proved that it eliminates histamine present in Pranavaha Srotas and hence acts as Shwasahara. [9]

**Guduchi** - Dry barks of Guduchi has anti-spasmodic, antipyretic, anti-allergic, anti-inflammatory. It inhibits the constrictor response of histamine and acetylcholine on smooth muscle.

**CONCLUSION**

Goghruta Nasya with PKG Tab orally is an effective treatment for Allergic Rhinitis (Vataja Pratishaya) with fast recovery and with minimal financial burden, hence it can be concluded that this treatment is economical, alternative and safe.

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