



## The efficacy of herbal tea as a preventive measure for allergic rhinitis

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### Abstract

Allergic rhinitis is an atopic disease. Atopic allergy is a type –I hypersensitivity reaction which produces IgE antibodies to allergens like pollen, dust, etc. In Ayurveda direct reference of allergic rhinitis is not available, but concept of allergy is scientifically explained under ‘*Asatmaja vyadhi*’ while its effects are explained in context of hereditary, *Viruddhahara*, *Dushi visha* and *Ritu sandhi*. Various types of *Pratishyaya* are explained clearly in all *Samhita*’s. However, symptoms of *Vataja pratishyaya* like *Tanu nasa srava* (rhinorrhea), *Shirah shoola* (headache), *Kshavathu* (sneezing) more related with symptoms of allergic rhinitis. In the present study, patients of allergic rhinitis are evaluated on the basis of general evaluation scale consisting parameters like nasal obstruction, sneezing, itching nose etc. In the clinical study 30 patients were selected in age between 16-60 years irrespective of their sex, religion, occupation and habitat etc. They were treated with herbal tea for 14 days in their tea time 5g of tea bag. All of them were completed the treatment accurately and the follow up study continued up to two weeks after the treatment. According to analysis, it can be concluded that, the herbal tea has been shown reducing the symptoms of allergic rhinitis like nasal obstruction, sneezing, itching. While assessing the total effect of therapy, complete remission was observed in 16.7% (n=5), marked improvement was 33.3% (n=10) and moderate improvement was 50% (n=15). During follow-up period recurrences were observed in the symptoms of running nose. Therefore it is most suitable as a preventive measure to control and cure the disease.

**Keywords:** allergic rhinitis, herbal tea, *Pratishyaya*

### Introduction

Allergic rhinitis is an upper airway inflammatory disease characterized by main symptoms of rhinorrhea, sneezing, and nasal obstruction. In addition, non-nasal symptoms such as itching of the throat, palate and conjunctival symptoms can occur in individuals with allergic rhinitis with exposure to their relevant allergens. Allergic rhinitis is not usually harmful, but the symptoms can be irritating and affect in the quality of life. The common symptoms of allergic rhinitis including, sneezing, runny nose, itchy nose, blocked nose as well as many people also have itchy sensation in eyes or throat.

Ayurveda, one of the world oldest approaches to the medicine is mostly enshrined the benefits of the present and future lives for the sake of curing disease and preserving healthy living. Allergic Rhinitis from an Ayurvedic perspective is caused due to the *ama* (toxins) present in the body and due to *Ojas kshaya* (low immunity). Accumulated *ama* aggravates the levels of *Kapha* in the body, giving rise to different symptoms of allergies. Ayurveda believes in balancing the three *dosha* present in the human body, allergic rhinitis is co-related to *Pratishya* condition in Ayurveda and having same symptoms of *pinasa roga*.

Worldwide prevalence of allergic rhinitis is estimated as 9% to 42%, however it is hard to count due to inconsistency of population sampling methods that are employed in different countries. In Sri Lanka it is 12% - 35%. Till today there is no such remedy scientifically evaluated for allergic rhinitis as preventive measure. Therefore, aim of the study was to

Assess the efficacy of *Thulasi panta kashaya yoga* as herbal tea for allergic rhinitis in the basis of prevention.

### Methodology

The study population were selected in the Out Patient Department of *Gampaha Wickramarachchi Ayurveda Hospital* at the Yakkala, Sri Lanka were selected randomly irrespective of their sex, religion, occupation, and habitat etc.

### Inclusion Criteria

- Patients having signs and symptoms of allergic rhinitis between the ages of 16 to 60 years were selected for the study.
- Patients who were under allopathic treatment were excluded

### Exclusion Criteria

- Patients below 16 years and above 60 years of age
- Those who were having history of Diabetes Mellitus, Hypertension any chronic debilitating disease, Psychiatric disorders and any other nasal pathology were excluded from the study.
- Pregnant and lactation mothers were excluded.
- Patients who were under any treatment which can alter the results were excluded.

Total 30 patients were randomly selected in either sex and treated with herbal tea for two weeks duration.

**Ingredients:** (*Thulasi panta kashaya yoga* in Ayurveda Pharmacopoeia part I)

- Vasaka* (*Adathoda vasica*) - leaves
  - Thulasi* (*Ocimum tenuiflorum*) - leaves
  - Marjarmohini* (*Acalypha indica*) - leaves
  - Nirgundi* (*Vitex nigundo*) - leaves
  - Dhanyaka*(*Coriandrum sativum*) - seeds
- } equal quantity  
6 parts



Vasaka

Thulasi



Marjarmohini

Nirgundi



Dhanyaka

Equal quantity of fine powders of above dried drugs were mixed with dried ginger (*Zingiber officinale*) and *Kalajaji seed* (*Nigella sativa*) fine powder of 6:1 ratio mixed and made herbal tea bags.

The patients were advised to use this in the tea time morning and evening for two weeks. (One tea bag (5g) dips in half cup of boiled hot water (120ml). Follow up study was continued up to two weeks of period after completion of the treatment.

The improvement in the patient were assessed on the basis of relief in the signs and symptoms of the disease by 1-4 scoring system. Nasal obstruction (*Nasavarodha*), Sneezing (*Kshvathu*), Headache (*Sirah shoola*), Running Nose (*Pratishya*), Itching of eyes (*Akshi kandu*) were considered as subjective parameters. Absolute eosinophil count was taken as objective parameter.

Total effect of therapy was assess as,

1. Complete remission: 100% relief in signs and symptoms after two weeks and during follow up period.
2. Marked improvement: More than 75% relief in signs and symptoms was considered as marked improvement
3. Moderate improvement: 50% -75% relief in signs and symptoms was considered as Moderate improvement
4. Mild improvement: 25%-49% relief in signs and symptoms was considered as Mild improvement
5. Unchanged: Less than 25% relief in signs and symptoms was noted as unchanged

**Result and Discussion**

**General observations**

In this study majority of patients (63%) were males. It indicates that there was a difference between the male to female ration 2:1 (Collins, 2002) this finding was further proved by the previous research works, because of male preponderance for exposure to occupational dust and chemicals, asthmatic and allergic conditions, 73% of patients were under 26-35years of age group.

According to research study represents the nature of working wise distribution of the patients the majority (33.33%) having both mental and physical contribution to work places (53.33%). It was proven that the mentally depressed people with most of physically involved work were suffered from allergic rhinitis. Place of working wise distribution shows that the maximum people (60%) who were engaged with the outdoor working place (60%) prominently and there was an evidence of harming effects of exposure to occupational dusts and chemicals (Collins, 2002). This observation reveals that the area of the patient who was engaged the work with an atmospheric pollution and chronic contact with such unavoidable areas have been leads to increase the severity of the disease.

**Results**

According to symptoms, nasal obstruction, sneezing and running nose can be seen in all patients. That is 100%. But after treatment, it was shown completely cured. Therefore, it is highly significant. Regarding the objective parameter, absolute eosinophil count was reduced more than 60% after treatment. Therefore, it was significant in all the patients.

**Table 1**

Sign & Symptoms	Time									
	4am-7am		7am - 11 am		11 am- 3 pm		3pm – 7 pm		7 pm on wards	
	Total	Per	Total	Per	Total	Per	Total	Per	Total	Per
Nasal Obstruction	17	56.66%	8	26.66%	3	10%	2	6.66%	0	0%
Sneezing	19	63.33%	7	23.33%	2	6.66%	1	3.33%	1	3.33%
Headache	10	33.33%	12	40%	3	10%	2	6.66%	3	10%
Itching eyes	14	46.66%	3	10%	6	20%	2	6.66%	5	16.66%
Running nose	19	63.33%	5	16.66%	3	10%	0	0%	3	10

### Observation of Signs & Symptoms

According to the above table, high percentages could be found regarding to sneezing and running nose (63.33%) and moderate relief was found in (56.66%) to nasal obstruction in early in the morning (4am-7am). Headache was the symptom which affected 40% of total number of patients in 7am – 11am. While considering the total effect of therapy, complete remission was observed in 16.7% (n=5), marked improvement was 33.3% (n=10) and moderate improvement was 50% (n=15). During follow up period recurrences were observed in the symptoms of running nose.

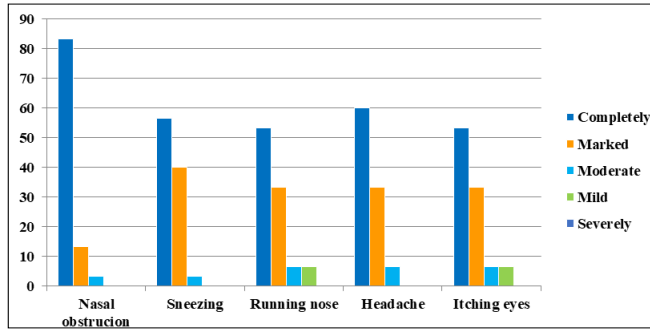


Fig 1

### Total effect of therapy

According to the probable mode of action of the drug, Thulasi Phanta Kashaya Yoga most of the ingredients predominant with *thikshna* and *snigdha guna*, *ushna virya*, *katu vipaka* and *kapha vata shamaka* properties. All these properties are useful to remove the *Srotorodha* and promote the expulsion of vitiated *Kapha Dosha*. And also these ingredients have Anti-inflammatory, Antibacterial, anti-fungal and anti-histaminic actions lead to arrest the secondary infection and prevent the recurrence of the disease.

### References

1. Praveen Kumar, Michael Clark. *Clinical Medicine*, 7<sup>th</sup> Edition, Saunders Elsevier, Edinburgh, London, 2009.
2. Prof. Srikantha Murthy KR.. *Susruta Samhita*, 1<sup>st</sup> Edition, Chaukhambha Orientalia, Varanasi, India, 2000, 4.
3. Bast F, Rani P, Meena D, Chloroplast DNA phylogeography of holy basil (*Ocimum tenuiflorum*) in Indian subcontinent, *Scientific World Journal*, 2014; 2014:847-482. [PMC free article][PubMed]
4. Mondal S, Mirdha BR, Mahapatra SC. The science behind sacredness of Tulsi (*Ocimum sanctum*) *Indian J Physiol Pharmacol*. 2009; 53:291-306. [PubMed]
5. World Health Organization. Preventing Chronic Diseases: A Vital Investment: WHO Global Report. Geneva: World Health Organization; Department of Chronic Disease and health Promotion, 2005, 18.
6. Department of Ayurveda, *The Ayurveda Pharmacopoeia*, Colombo, Sri Lanka, 1994, 1(1).
7. Kumarasinghe A. *Sri Saranghadhara Samhita*, Sinhala translation, Department of educational publish, Colombo, Sri Lanka, 2007.
8. Kumarasinghe A. *Madhava Nidhana*, Colombo Translation, Uttardaha, Department of Educational Publish, Colombo, Sri Lanka, 1987.
9. Robbins, Cotran. *Pathologic Basis of Disease*, 8<sup>th</sup> Edition, Saunders an imprint of Elsevier Inc, 2010.

10. Skoner DP. Allergic Rhinitis: definition, epidemiology, pathophysiology, detection and diagnosis, 2001, S2-8.
11. Samaranyake GVP, Pushpakumara AAJ. "A Literary Review on Traditional Medical Systems for Bone Fractures in Sri Lanka" Published in *International Journal of Trend in Research and Development (IJTRD)*, 2016, 3(3). ISSN: 2394-9333. |Issue-3, URL: <http://www.ijtrd.com/papers/IJTRD3908.pdf>