

A CLINICAL STUDY ON THE EFFICACY OF HARIDRA KHANDA AND HARIDRA DHOOMA NASYA IN VATAJA PRATISYAYA (ALLERGIC RHINITIS)

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ABSTRACT

Sneezing (*kshavathu*), obstruction of nose (*nasaavarodha*), watery discharge (*tanusrava*) are very commonly seen in patients of ENT Out Patient Departments (OPD). These symptoms can be exactly similar to the symptoms of Allergic Rhinitis (AR). AR is an IgE-mediated inflammation of the nasal mucosa induced after allergen exposure and presents with the 3 cardinal symptoms of sneezing, nasal obstruction, and rhinorrhea. More than 400 million patients suffer from AR globally. Along with these other physical findings include conjunctival swelling and erythema, eyelid swelling, lower eyelid venous stasis (rings under the eyes known as "allergic shiners"), swollen nasal turbinate, and middle ear effusion. Repeated attack and improper management of the disease lead to many complications like asthma, recurrent sinusitis, nasal polyps, middle ear infection etc. *HaridraKhanda* is prescribed as an ideal drug of choice selected for managing allergic condition in oral administration. *Haridra* is proved as Anti-inflammatory, Analgesic, Antipyretic, Antioxidant, Immunostimulator, Anti-allergic, Anti histaminic pharmacologically. *Dhumaanasya* is the apt treatment in this condition as the medicine is in direct contact with nasal mucosa. This study is to evaluate the efficacy of both internal and external administration of *haridra*. Patients (n=10) registered with Allergic Rhinitis in OPD of Shalaky Tantra, Shri Kalabyraveshwara Ayurveda Medical College Hospital and Research Centre Bangalore, were taken up for the study and treated with *Haridrakhanda* and *Haridradhoomanasya* for 1 month. There were no drop outs and treatment event was successful.

Keywords: Allergic rhinitis, *Vatajapratisyaya*, *Haridrakhanda*, *Haridra*, *Dhumaanasya*.

INTRODUCTION

Vatajapratisyaya is mentioned by various acharyas under *nasagatharogas*. The causative factors for *vatajapratisyaya* are exposure to *raja*(dust), *seethe*(cold), *baspa*(smoke), *avashayaya*(dew), *rtuvai-shamya*(climatic changes) which are very common now a days^{1,2,3}. These causative factors cause vitiation of *doshas* and produce *pratisyaya*. The symptoms mentioned under *vatajapratisyaya* are *tanusrava*(watery dis-

charge), *nasaavarodha*(nasal obstruction), *kshavatu*(sneezing), *galataluosthaso-sha*(dryness of throat, palate & mouth), *swarasadha*(hoarseness of voice) and *sirovyedha*(headache).

Allergic Rhinitis is an IgE mediated immunologic response of nasal mucosa to air borne allergens and is characterized by watery nasal discharge, nasal obstruction, sneezing and itching in the nose. Also aller-

gic shiners, redness and itching of eyes, ears and palate are present in patients with chronic symptoms. As the sufferer will get exposed to allergens as pollution, climatic changes are more now a day they will get used to these symptoms and it will become part of their daily life. They are taking anti-histamines or decongestants for getting symptomatic relief and won't consider it seriously until and unless it leads to sinusitis, asthma etc. which are the complications of Allergic Rhinitis.

Table 1. Common symptoms in Vatajapratishyaya and Allergic rhinitis

Vatajapratishyaya	Allergic rhinitis
Tanusrava(watery discharge)	Watery nasal discharge
Nasaavarodha(nasal obstruction)	Nasal obstruction
Kshavatu(sneezing)	Sneezing

Haridrakhanda is one of the prominent anti-allergic drugs mentioned in our classics. The *rasayana* property of Haridrakhanda has helps to increase *vyadhikshamatva* of patient and thereby enabling him to withstand against allergic reactions.

Dhoomanasya with Haridrais the most effective and easy treatment method for allergic rhinitis. Due to the antihistaminic, anti-inflammatory property of Haridrait acts directly on nasal mucosa and give marked relief to patient Haridra contains-curcumin which is having anti-allergic effects and can inhibit the release of histamine from mast cells.

Haridra(Database, Vol-1)

- Botanical name: *Curcuma longa* Linn.
- Family: Zingiberaceae.

- Synonyms: Rajani, Nisha, Gauri, Krimighna, Yoshitpriya, Kanchani, Varavarnini, Hattavilasinsi, Haldi.
- Part used: Rhizome.
- Rasa: Tikta, Katu.
- Guna: Ruksha, Laghu.
- Veerya: Ushna.
- Vipaka: Katu.
- Doshagnata: TridoshaShamaka.
- Karma: Varyna, Kushthaghna, Kandughna, Pandughna, Raktashodhaka, Raktavardhaka, Shwasahara, Vishaghna, Krimighna, Shothaghna, Vranaropana, Vranashodhana.
- Chemical constituents : Curcuminoids (6%), Curcumin (50-60%), Essential oil (2-7%), Bisabolane derivatives, Desmethoxycurcumin, Bidesmethoxycurcumin, Dihydrocurcumin, Phytosterols, Fatty acids, Polysaccharides.
- Pharmacological actions: Antihepatotoxic, Antihistaminic, Antibacterial, Antifungal, Analgesic, Antiinflammatory, Antiprotozoal, Antifertility, Antiarthritic, Hypocholesteremic, CNS depressant, Cholagogue, Insecticidal etc.

Aims and objectives:

To clinically assess the efficacy of Haridrakhanda and Haridradhoomanasya in vatajapratishyaya

Materials and method

The patients attending OPD and IPD of SKAMC&RH, VIJAYANAGAR, and BANGALORE were selected irrespective of age, sex, religion and occupation.

Inclusion criteria

Uncomplicated patients with signs and symptoms of Allergic Rhinitis were included.

Exclusion criteria: Patients suffering from diseases and conditions like Tuberculosis, Pneumonia, DNS, Nasal polyps, Tumors of nose etc. were excluded.

Proforma: A special case proforma was prepared for the evaluation of the etiopathogenesis and assessment of treatment efficacy.

Study design:

Open label clinical trial was conducted on 10 patients fulfilling the criteria for the diagnosis of the disease *Vatajapratisyaya* (Allergic rhinitis) in the present study. The patients were selected from the outpatient department of *Shalakyatantra* of Shri Kalabyraveshwara Ayurveda Medical College Hospital and Research Centre Bangalore.

Selection of patients: 10 no. of patients irrespective of age, sex, religion and occupation were selected after obtaining the informed consent. Sampling was done based on inclusion and exclusion criteria

Drug dose and duration

Haridrakhanda: 6gms of *Haridrakhanda* is given orally to the patients twice daily after food for 1 month. *Haridrakhanda* contains *Haridra*, *Triphala*, *Trikatu*, *Trijata*, *Vidanga*, *Nagakeshara*, *Musta*, *Sita*, *Lohabhasma*, *Goghrita*, *Godugdha*.

Haridra for Dhoomanasya: *Haridraddhoomanasya* is given thrice in a day for 7 days. Procedure: Make the patient to sit and keep cotton over both the eyes and tied with bandage. *Haridrarrhizome* is lighted and blows out. Fumes coming from that are inhaled through the nose and exhaled through mouth. Each nostril 4 puffs are given.⁴

Criteria for assessment

The effect of treatment was assessed statistically based on the changes in pattern of subjective and objective features considered for the study.

Subjective parameters: Watery discharge, nasal obstruction, sneezing, loss of smell, heaviness of head.

Objective parameters: Anterior rhinoscopy Investigations– Absolute Eosinophilic Count, Total Count, Differential Count, Erythrocytes Sedimentation Rates.

General evaluation score:

1. Watery discharge
 - 0- No discharge
 - 1- Occasional discharge with a feel of running nose
 - 2- Running nose which needs mopping
 - 3- Running nose which needs continuous mopping
2. Nasal obstruction
 - 0- No obstruction
 - 1- Inhalation & exhalation with effort with feeling of mild obstruction
 - 2- Inhalation & exhalation with effort with feeling of moderate obstruction, inhalation & exhalation to be supplemented with mouth breathing
 - 3- Complete blockage with total mouth breathing
3. Sneezing
 - 0- No sneezing
 - 1- 1 – 10 sneezing
 - 2- 10 – 15 sneezing
 - 3- 15 – 20 sneezing
 - 4- > 20 sneezing

Overall effect of therapy is evaluated as:

1. Complete remission with 100% relief in signs and symptoms.

2. Marked improvement with >75-100% relief in signs and symptoms.
3. Moderate improvement with >50-75% relief in signs and symptoms.
4. Poor improvement with >25-50% relief in signs and symptoms.
5. No improvement with <25% relief in signs and symptoms.

Observation and results

A total of 10 patients were registered for the study of allergic rhinitis. There were no dropouts. *RituVaishamya* and *Dhuli Rajah Sevana* were reported in maximum

number of patients i.e. 90%. This indicates that *RituVaishamya* and *Dhuli Rajah Sevana* were the most important causative factor for Allergic Rhinitis reported by the patients of this study. In this study maximum number of patients was college students i.e. 40%, 20% were housewives, 20% were workers and remaining 20% were teachers and business people. Among them, 40% were males and 60% were females.

Table 2. TOTAL EFFECT ON SYMPTOMS

	Running Nose		Nasal Obstruction		Sneezing		Redness and itching		Heaviness of head		Average	
	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT
1	2	0	3	0	0	0	3	0	3	0	2.2	0
2	2	0	3	0	3	0	0	0	0	0	1.6	0
3	3	1	2	0	3	1	2	0	3	0	2.6	0.4
4	2	0	2	1	3	1	3	1	2	0	2.4	0.6
5	0	0	3	0	2	0	3	0	3	0	2.2	0
6	3	1	0	0	3	1	2	1	3	0	2.2	0.6
7	3	0	3	1	2	0	0	0	0	0	1.6	0.2
8	3	1	0	0	3	0	0	0	0	0	1.2	0.2
9	3	1	3	1	3	1	3	1	3	1	3	1
10	3	0	3	1	3	1	0	0	0	0	1.8	0.4
Mean Score	2.4	0.4	2.2	0.4	2.5	0.5	1.6	0.3	1.7	0.1	20.8	3.4
% Re- lief	83.33		81.82		80.00		81.25		94.12		83.65	
P value	0.000018		0.000462		0.000020		0.013926		0.003875			

Chief complaints: *Nasavrava* was observed in 90%, *nasaavarodha* in 80% and *ksavathu* in 90% of patients.

Associated complaints: redness and itching of eyes, heaviness of head is seen in 60% of patients.

Due to inflammatory reaction of nasal mucosa maximum number of patients i.e. 90% had redness and 80% had hypertrophied turbinates. The detailed results of treatment are tabulated in Table 2.

Effect of therapy on running nose

Before treatment the mean score of running nose was 2.4 which was reduced to 0.4 after treatment with 83.33% relief and the results were statistically highly significant(p<0.001)

Effect of therapy on nasal obstruction

Before treatment the mean score of nasal obstruction was 2.2 which was reduced to 0.4 after treatment with 81.82% relief and the results were statistically highly significant(p<0.001)

Effect of therapy on sneezing

Before treatment the mean score of sneezing was 2.5 which was reduced to 0.5 after treatment with 80% relief and the results

were statistically highly significant(p<0.001)

Effect of therapy on redness and itching of eyes

Before treatment the mean score of redness and itching of eyes was 1.6 which was reduced to 0.3 after treatment with 81.25% relief and the results were statistically significant(p<0.01)

Effect of therapy on heaviness of head

Before treatment the mean score of heaviness of head was 1.7 which was reduced to 0.1 after treatment with 94.12% relief and the results were statistically significant(p<0.01)

GRAPH 1: SYMPTOMS BEFORE AND AFTER TREATMENT

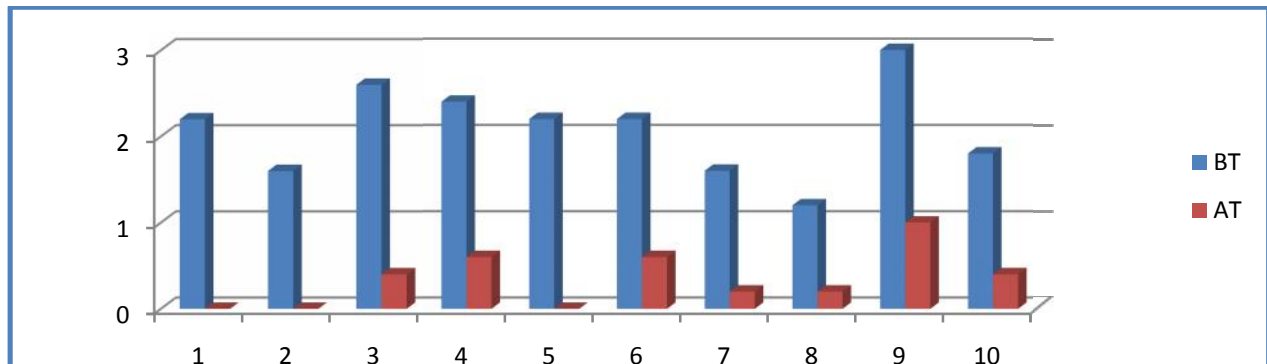
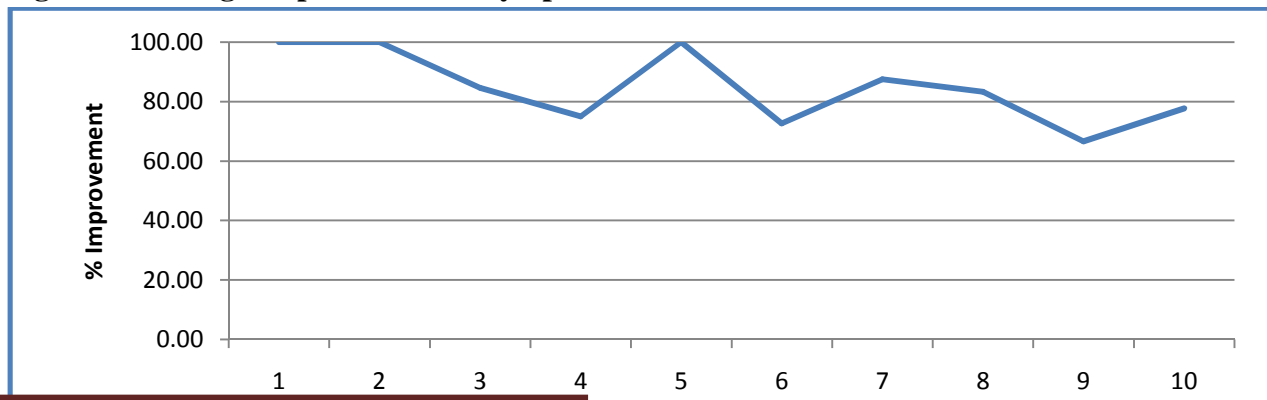


Figure 1. Average Improvement in symptoms after treatment



DISCUSSION

Pratisyaya can occur as a separate entity or as a symptom of some other disease. According to Ayurvedaacharyas, pra-

tisyaya is a sadyavyadhi only. It will lead to further complications, if not properly managed. For causation of Allergic Rhinitis heredity, climatic factors and pollution also

plays a major role. Allergy according to Ayurveda can be correlated to *viruddhaahara* because it is causing unwholesome due to their mutually contradictory dualities, some by combination, some by the method of preparation, some by virtue of the place, time and dose, some others by their nature.⁹ *Sushruta Acharya* has mentioned “When causative factors like *Desha, Kala, Anna*, which add to the potency of the *Visha & Divaswapna* are indulged in, that *Dushivisha* which is lying dormant will become more potent vitiating the *Dhatus* leading to the manifestation of a disease¹⁰. It is seen commonly that Allergic disorders are not affecting every individual similarly in presence of same causative factors. Histamine is also present in the body in latent form similar to *Dushivisha*. While getting exposed to the allergen for the first time the specific IgE antibody is produced and got fixed to tissue mast cells, which remain dormant till the next exposure. Also allergy can be due to not following the regimens of *ritu sandhi*. Modern pathology for allergic diseases can be compared with ‘*Ritu Sandhi*’ period & hence it can be said that these diseases has direct relation with *Ritu Sandhi*.

Haridrakhanda is the main formulation for treatment of allergy. It also helps in improving immunity. The properties mentioned in our classics are *medhya, rasayana, balya, brimhana, agnideepana, pachana, shothahara, jwarahara* etc. All these causes increase in *vyadhikshamatwa* of patient and thereby helping to cure *pratisyaya*.

Haridra is *krimighna, kandughna and srotovishodana*. It acts as a histamine mediator for internal and external allergic reactions. Curcumin, the main alkaloid

present in *Haridra* has an ability to inhibit non-specific and specific mast cell-dependent allergic reactions. It is proposed as the best anti-inflammatory agent in many research works.

Mode of action– *Haridra* contains curcumin which is having anti-allergic effects and can inhibit the release of histamine from mast cells. Curcumin contains polyphenols and curcuminoids that have antioxidant, anti-inflammatory and anti-amyloid properties. It also works in several ways to decrease inflammation by reducing prostaglandin activity. Curcumin can inhibit both the activity and the synthesis of cyclooxygenase-2 (COX2) and 5-lipoxygenase (5-LOX), as well as other enzymes that have been implicated in inflammation.⁷

Sushruta Acharya has clarified *shringataka Marma as a Sira Marma* formed by the union of *siras* (blood vessels) supplying to nose, ear, eye & tongue. He further points out that injury to this *marma* will be immediately fatal. According to all prominent *Acharyas, Nasa* is said to be the gateway of *Shira*. It does not mean that any channel connects directly to the brain but they might be connected through blood vessels. Rapid relief of symptoms should be one of the primary goals of treatment for allergic rhinitis. A drug molecule can be transferred quickly across the single epithelial cell layer directly to the systemic blood circulation without first-pass hepatic and intestinal metabolism. The effect is fast compare to other routes⁸

30% (3 Patients) got complete relief, 50 % (5 patients) got marked improvement and 20% (2 patients) got moderate improvement.

Pratisyaya is the disease occurred due to vitiation of *vata dosha* along with *kapha*. *Haridrakhanda* is the medicinal preparation having *vatakaphashamaka* property. This is due to its *ushnaveerya*, *katuvipaka*, and *laghurookshaguna*. It also acts as *krimighna*, *kandughna* and *srotovishodana*. The alkaloids present act as a detoxifying agent.

CONCLUSION

Today, owing to the increase in pollution, undesirable climatic conditions and non-ideal lifestyle, there is a considerable increase in the number of cases of allergic rhinitis. However, it still remains quite an unanswered question for the modern faculty of medicine. Antihistamines and decongestants, the chosen remedies in the modern clinical practice, provide just a temporary solution by dealing with the symptoms. However, our science of Ayurveda when applied rightly provides sustained relief to the patients with allergic rhinitis. Both, immediate relief from presenting symptoms and gradually overcoming the underlying condition are the ideal results required in treatment of allergic rhinitis. *Haridradhoomanasya* attends to the need of providing immediate relief by acting directly on the nasal mucosa. *Haridrakhanda* being an immunomodulator caters to overcoming the underlying conditions. Along with this; a course of *shodana* will surely give better results as it does *doshaharana* and thus deals with the problem at its roots.

Allergic rhinitis if ignored or not managed properly, can lead to complications such as asthma, sinusitis etc. This calls for the need of early diagnosis and ideal treatment for the patients of allergic rhinitis.

REFERENCES

1. Susruta. Susrutasamhita with Nibandhasangraha commentary of Sri. Dalhanacharya Acharya VJT, editor. Varanasi: ChaukhambaSurbharatiPrakashan; 2012, uttarastana, chapter 20&21, verse 3-5, 10, 40, p 643-648.
2. Caraka. Caraka Samhita with Ayurvedadepika commentary by Sri. Cakaranidatta Acharya Vaidya YadavjiTrikamji, editor. Varanasi: ChaukhambaSurbharatiPrakashan; 2013, ChikitsaStana, Chapter 26, verse 127-128, p 606, pp 738.
3. Vagbhata. AstangaHrdaya with commentaries Sarvangasundara of ArunaDatta and Ayurvedarasayana of HemadriBhisagacarya Pt HariSadasivaSastriParadakara, editor. Varanasi: ChaukhambaSurbharatiPrakashan; 2011, Uttaraastana, Chapter 17, p 835-841, pp 956.
4. Vagbhata. AstangaSamgraha translated by Prof. K.R. Srikanthamurthy. 8th edition. Chaukhambhaorientalia; 2004, Sutrasthana, Chapter 30, p 529-531, pp640.
5. Dhingra P. Diseases of Ear, Nose and Throat. 4th ed. New Delhi: Elsevier, a division of Reed Elsevier India Private Limited; 2008, Chapter 11, p 66-72, pp 427.
6. Shri GovindaDasji. Bhaisajyaratnavali, commentary by Shri KavirajaAmbikadattaShastriAyurvedacharya, reprint 2009, chaukhambha publications, New Delhi, vol 2, Chapter 55, p 105, pp 871.
7. <http://www.rlcure.com/pretest-to-cure-restless-legs-syndrome-willis-ekbom-disease.html>

8. D.F. Proctor and I. Andersen. The nose. Upper airway physiology and the atmospheric environment, Elsevier Biomedical Press, Amsterdam, 1982.
9. Caraka. Caraka Samhita with Ayurvedadepika commentary by Sri. Cakrapanidatta Acharya Vaidya Yadavji Trikamji, editor. Varanasi: ChaukhambaSurbharatiPrakashan; 2013, Sutra Stana, Chapter 26, verse 81, p , pp 738.
10. Susruta. Susrutasamhita with Nibandhasangraha commentary of Sri. Dal-

hanacharya Acharya VJT, editor. Varanasi: ChaukhambaSurbharatiPrakashan; 2012, kalpastana, chapter 2, verse 33, p

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Source of support: Nil
Conflict of interest: None Declared