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EFFECT OF AN AYURVEDIC FORMULATION IN THE MANAGEMENT OF *PRATISHYAYA* W.S.R. TO ALLERGIC RHINITIS

Dr. Vijayant Bhardwaj*[1], Dr. M.K. Sharingi[2] and Dr. Shilpa Chaudhary[3]

[1]Reader PG Deptt. of Shalakya Tantra, RGGPG Ayurvedic College & Hospital Paprola, Distt. Kangra HP.

[2]H.O.D. & Associate Professor P.G. Deptt. of Shalya Tantra NIA, Jaipur.

[3]PG Scholar, Deptt. of Shalakya Tantra, RGGPG Ayurvedic College & Hospital Paprola, Distt. Kangra HP.

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***Corresponding Author**
Dr. Vijayant Bhardwaj
Reader PG Deptt. of Shalakya Tantra, RGGPG Ayurvedic College & Hospital Paprola, Distt. Kangra HP.

ABSTRACT

Nose is considered as the gateway of head according to *Ayurveda* and medicine instilled through the nose provides strength to the structures above neck.[1] Nose being exposed more to the external environment gives rise to various infectious and allergic manifestations. Rhinitis or *Pratishyaya* being common among them. *Pratishaya* is a *Vata Pradhan* disease occurs due to accumulation of *Doshas* in *Uttamanga*. Allergic Rhinitis is a global health problem and is increasing in prevalence. In the present study 54 patients were selected randomly and treated with *Sharisha Kwatha*. The therapy proves to be an easily available, cost effective, herbal alternative in the management of *Vataja Pratishyaya* (Allergic Rhinitis). The signs and symptoms were studied before and after treatment. Results of study showed marked (40%) and moderate (60%) improvement in patients in 1 month except Granulation on posterior pharyngeal wall which was found non significant.

KEYWORDS: *Pratishyaya*, *Sharisha Kwatha*, Allergic Rhinitis.

INTRODUCTION

Allergic Rhinitis, certainly one of the prime disease of Rhinology, is such a disease, which hardly leaves any person of any age group.[2] Allergic Rhinitis is similar to the disease '*Vataja Pratishyaya'* described in *Ayurvedic* classics. In *Ayurvedic* system of medicine it is explained as Sneezing, Watery discharge from nose, Stuffy nose, Itching in nose etc.[3] It is

seen to be one of the major problems, which can cause disturbance in routine work. In *Uttartantra, Acharya Sushruta* has devoted one separate chapter to *Pratishaya* after explaining *Nasagataroga*,[4] *Vata* is the main *Dosha* and *Kapha, Pitta* and *Rakta*,[5] are associated to it. The disease *Pratishaya* in the initial phases a curable disease entity but if it takes, a chronic course may lead to many associated complications like *Badhirya, Andhatva,* and *Shopha* etc.[6]

It is an acute IgE mediated, type 1 hypersensitivity reaction of nasal mucosa in response to antigenic substance associated with episodic attacks of sneezing, watery rhinorrhea & watering of the eyes.[7] According to WHO, 400 million persons worldwide have Allergic Rhinitis.[8] The international study of asthma and allergies in childhood (ISAAC) noted the prevalence of Allergic Rhinitis vary widely from 0.8 to 39.7% in different countries throughout world.[9] House dust mites are the dominant allergens in house dust and world widely the commonest cause of perennial Allergic Rhinitis.[10] Allergic Rhinitis is the commonest disorder of the nose to be seen in an out patient department. Within minutes after exposure of an allergic patient to antigen, an inflammatory response occurs. The patient first senses congestion. The condition can cause emotional distress, impaired normal activity and reduced attendance at work or school.[11]

This present study includes detailed study of the disease, its nature and course and to evaluate the effect of *Ayurvedic* drug on chronicity of the disease. Therefore keeping in view the need of time and gravity of the disease, present study was undertaken with the topic entitled "Effect of an Ayurvedic formulation in the Management of *Pratishyaya* w.s.r. to Allergic Rhinitis"

In this research work 54 patients were taken for study in single trial group. The duration for trial was 30 days for *Sharisha Kwatha*, evaluation based on subjective criteria.

AIMS AND OBJECTIVES

1. To study the effectiveness of the drug.
2. To establish the prevalence of the disease according to age and seasonal variations.
3. To study the side effect or hypersensitivity of drug if any.

MATERIALS AND METHODS

Selection Criteria

A total number of fifty four patients were selected from Shalakya Tantra OPD/IPD of R.G.G.P.G. Ayurvedic Hospital, Paprola, after obtaining their consent. Case study was random and irrespective of age, sex, caste, religion, occupation etc. All the patients were followed up every 15 days interval for 2 months after commencement of trial.

Inclusion Criteria

Patients of different age group having features described in allergic rhinitis were selected.

Exclusion Criteria

1. Severe nasal obstruction i.e. severs DNS, adhesion of nasal cavity, nasal polyp.
2. Active systemic disorders like hypertension, diabetes mellitus, cancer, renal, hepatic and gastrointestinal diseases.
3. Pregnancy and lactation
4. Regular medications for AR or cold and other allergic disorder.
5. Vasomotor rhinitis and rhinitis medicamentosa.
6. Received allergen injections in previous 2 years.

Plan of work

The study was planned in different steps as mentioned below:

1. Proforma: A special proforma will be prepared for the evaluation of the etiopathogenesis and assessment if treatment efficacy. A detailed history will be taken and simultaneously general and systemic examination of the patient was done having signs and symptoms suggesting of Allergic rhinitis.

2. Investigations

Haematology- Hb%. TLC, DLC, ESR, TEC, LFT, RFT.

Biochemistry- FBS

Radiology-X ray PNS Water's view.

Clinical Assessment

Assessment of the effect of treatment has been done on the basis of relief of subjective signs and symptoms of Allergic rhinitis on the basis of grading and scoring system.

- **Itching in nose, palate & pharynx**

No itching	0
Can tolerate without rubbing of nose	1
Can tolerate after frequent rubbing of nose	2
Continuous rubbing of nose	3
Irresistible itching	4

- **Excessive sneezing**

No sneezing	0
1-10 sneeze in each bout	1
11-20 sneeze in each bout	2
21-30 sneeze in each bout	3
>30 sneeze in each bout	4

- **Thin & watery nasal discharge**

No discharge	0
1 hanky/day	1
2 hanky/day	2
3 hanky/day	3
>3 hanky/day	4

- **Nasal obstruction**

No obstruction	0
off/on obstruction	1
Obstruction at night	2
Obstruction in day & night	3
Forceful opening	4

- **Watering from eyes**

No watering	0
Fills the fornix	1
Fills the lower edge of cornea	2
Fills the pupillary area	3
Fills the whole eye/ water comes out	4

- **Mucosal Oedema**

No oedema	0
Oedema upto 2mm	1
Oedema upto 3mm	2
Oedema upto 4mm	3
Compete oedema	4

- **Congestion of nasal mucosa**

No congestion	0
Capillary engorgement	1
Arterial engorgement	2
Bluish pink	3
Reddish	4

- **Discharge collection in middle ears**

No collection	0
Fills the lower 1/4th of T.M.	1
Fills the lower 1/2th of T.M.	2
Fills the lower 3/4th of T.M.	3
Fills the whole of T.M.	4

- **Post nasal drip**

No drip	0
Off/on drip	1
Dripping behind uvula	2
Dripping below the uvula	3
Dripping in oropharynx	4

- **Retracted tympanic membrane**

No retraction	0
Obliteration in cone of light	1
Dull T.M. with obliteration	2
Loss of cone of light	3
Atelactasis	4

- **Granulation on post. Pharyngeal wall**

No granulation	0
2-3 granulations	1
4-5 granulations	2
6-7 granulations	3
complete granulations	4

Criteria For Overall Assessment

The total effect of therapy was assessed considering the following criteria-

- Complete remission : 100% relief in the signs and symptoms
- Markedly improvement : >75% relief in sign and symptoms
- Moderately improved : >50% relief in sign and symptoms
- Mild improvement : >25% relief in sign and symptoms
- Unchanged : <25% relief in sign and symptoms.

Drug review

Ingredients of *Sharisha Kwatha*[12]

Sr.No.	Name of plant	Botanical Name	Family	Parts used
1.	*Sharisha*	Albizzia lebbeck	Fabaceae	Twaka

Rasa Panchaka* of *Sharisha Kwatha

Sharisha Kwatha have *Kashaya, Tikata, Madhura Ras, Laghu Rukasha, Tikshana Guna, Ushna Virya, Katu Vipaka* and *Tridosha Shamak* properties.

Drug Schedule: *Sharisha Kwatha* as oral drug.

Dosage: 100ml thrice a day.

Duration: 30 days

Follow up: After completion of trial every fortnightly for 2 months.

Statistical Analysis

The information gathered regarding demographic data is shown in percentage. The scores of criteria of assessment were analysed statistically in form of mean score B.T.(Before treatment), A.T. (After treatment), (B.T.-A.T.) difference of mean, S.D. (Standard deviation), S.E. (Standard error), Student paired 't' test was carried out at $p>0.05$, $p<0.05$ and $p<0.001$.

OBSERVATIONS

In the present study of 56patients 32.5% belonged to age 31-40 years, 54% were females, 88% were married, 100% belonged to rural area, 97% patients were Hindus, 38% patients were housewives, 30% were graduates, 44% were of lower class, 75% patients were consuming vegetarian diet, 63% were having no addiction, 77% were having good appetite, 74% were having sound sleep, 50% patients were taking *Madhura rasa*, 55% were of *Vatakaphaja Prakriti*, 85% were of *Madhyama Sara*, 60% were of *Madhyama Samhanana*, 75% were of *Madhyama Pramana*, 90% were of *Madhyama Satva*, 70% were of *Madhyama*

Vyayama Shakti, 60% were of *Mandagni*, 80% were of *Madhyama Ahara Shakti*, 50% patients were of *Madhyama Koshtha*, Most of the patients had chronicity upto 1 year. 80% of patients were having previous treatment history of the disease. As incidence of signs and symptoms were concerned almost all patients showed symptoms like Itching in nose, palate& pharynx, Sneezing, Thin & watery nasal discharge, Nasal obstruction, Watering from eyes, Mucosal oedema, Congestion of nasal mucosa i.e. 100% frequency followed by Post nasal drip 88.1%, Granulation on post. Pharyngeal wall 80%, Retracted tympanic membrane 55%. Discharge collection in middle ears 39.38%.

Effect of therapy

1. **Itching in nose, palate & pharynx:** The initial score of itching was 2.222 which was reduced to 0.666 after treatment. The percentage relief was 70% which is highly significant statistically at the level of $p<0.001$ ($t=7.824$).
2. **Sneezing:** The initial score of sneezing was 2.333 which was reduced to 0.796 after treatment. The percentage relief was 65.87% which is highly significant statistically at the level of $p<0.001$ ($t=7.688$).
3. **Nasal discharge:** The initial score of nasal discharge was 2.481 which was reduced to 0.888 after treatment. The percentage relief was 64.17% which is highly significant statistically at the level of $p<0.001$ ($t=7.533$).
4. **Nasal obstruction:** The initial score of nasal obstruction was 2.481 which was reduced to 0.796 after treatment. The percentage relief was 67.91% which is highly significant statistically at the level of $p<0.001$ ($t=7.719$).
5. **Watering eyes:** The initial score of watering eyes was 2.185 which was reduced to 0.759 after treatment. The percentage relief was 65.25% which is highly significant statistically at the level of $p<0.001$ ($t=7.963$).
6. **Mucosal oedema:** The initial score of mucosal oedema was 2.370 which was reduced to 0.777 after treatment. The percentage relief was 67.18% which is highly significant statistically at the level of $p<0.001$ ($t=7.746$).
7. **Congestion of nasal mucosa:** The initial score of congestion nose was 2.481 which was reduced to 0.944 after treatment. The percentage relief was 61.94% which is highly significant statistically at the level of $p<0.001$ ($t=7.416$).
8. **Discharge collection in middle ear:** The initial score of discharge collection in middle ear was 1.793 which was reduced to 0.449 after treatment. The percentage relief was75% which is highly significant statistically at the level of $p<0.001$ ($t=5.042$).

9. **Post nasal drip:** The initial score of PND was 2.221 which was reduced to 0.615 after treatment. The percentage relief was 72.17% which is highly significant statistically at the level of p<0.001 (t=7.978).
10. **Retracted tympanic membrane:** The initial score of RTM was 2.237 which was reduced to 0.947 after treatment. The percentage relief was 57.64% which is highly significant statistically at the level of p<0.001 (t=5.024).
11. **Granulation on post. Pharyngeal wall:** The initial score of granulation on post. Pharyngeal wall was 2.357 which was reduced to 2.286 after treatment. The percentage relief was 3.03% which is not significant statistically at the level of p=0.652 (t=0.450).

DISCUSSION

To treat the disease in a proper way, it is necessary to know the causative factor and the disease process. The study of literature shows that this clinical entity, *Pratishyaya* results from the vitiation of *Vata* and *Kapha*. The aetiopathogenesis also brings out the fact that its causative factors are *Vata* and *Kapha*. So any drug advocated for this particular disease should have properties to bring the affected *Doshas* to normal level. Hence, the drug selected mainly possesses *Tridosha Shamaka* properties. The trial drug *Sharisha Kwatha* is having *Kashaya* (33.3%), *Tikta* (33.3%) *and Madhura* (33.3%) *Rasa*, *Laghu* (33.3%) *Ruksha* (33.3%) *Tikshana* (33.3%) *Guna*, *Ushna* (100%) *Virya*, *Katu* (100%) *Vipaka* and (100%) *Tridosha Shamaka* properties which are countering the *Samprapti* (pathogenesis) of *Vataja Pratishyaya*. The *Rasa Tikta* & Kashaya having properties like *Kandu Prashamana, Kleda, Meda, Pitta,Kapha Upshoshno, Ghranam Asravayati, Shwayathu Anupahanti, Krimi Hinasti, Marga Vivrinoti, Shoshana* as per Ch.Su.26,[13] helps a lot in reduction of signs and symptoms. The *Guna Laghu* & *Ruksha* relieves the oedema of nasal mucosa and clears the osteo-meatal complex. *Ushna Virya* helps to combat with precipitating factors, as *Pratishyaya* is aggravated by cold food habits and environment conditions. Also *Ushna Virya* helps in reducing *Kapha* and *Vata*, so act against *Vata* and *Kapha* predominance of *Vataja Pratishyaya*. *Katu Vipaka* have same functions as *Katu Rasa*.

In this formulation '***Sharisha'*** which is main ingredient is having *Shothahara, Kaphaghana,* Antiallergic[14] properties which help in reducing swelling due to inflammation and itching.

CONCLUSION

Allergic rhinitis is one of the prime disease of respiratory system found in all age groups irrespective of sex. The symptomatology of *Vataja Pratishyaya* and Allergic rhinitis was

found to be same. Hence there is correlation between *Vataj Pratishyaya* and Allergic rhinitis.

In the present study the treatment given is proved cheap and effective without any complication in this management of disease.

All the *Pratishyaya* patients who received proposed formulation tolerated very well and no untoward effect were reported by the patients registered for the current trial. Follow up study of two month duration have not shown any recurrence up to follow up time.

Therefore, it can be concluded that *Sharisha Kwatha* is the good, safe, effective and dependable remedy for the management of *Pratishyaya* as it not only lowers down the symptoms but also imparts a feeling of well being and provide significant symptomatic relief.

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