

Clinical Evaluation of *Mahatriphaladya Ghrita* in the Management of Allergic Conjunctivitis

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Abstract: *When the eye comes into contact with certain allergens, an allergic response is observed. Allergic conjunctivitis is the most common form of ocular allergy (prevalence 5-22 %). An allergen irritates the thin clear mucous membrane lining the eyelids i.e. conjunctiva. The disease Abhishyanda is having symptoms like redness, itching, lacrimation, F.B sensation, photophobia etc which is similar to Allergic conjunctivitis. The management of Allergic Conjunctivitis in modern ophthalmology is very costly and it should be followed throughout long. Research work on Vataja Abhishyanda –Simple Allergic Conjunctivitis by Jayshree Udani, Manjusha R have conducted first in Jamnagar on 2010 was comparison of classical Ashchyotana and eye drop formulation. This is 2nd work in Allergic Conjunctivitis with comparing to predominant Dosha of Abhishyanda in Jamnagar. Patients were selected from the O.P.D. and I.P.D., Shalakya department in open single trial method. Mahatriphaladya Ghrita orally 15ml twice a day in empty stomach with Anupana of luke warm water and Ashchyotana of Triphala decoction 10 drops in conjunctiva sac twice a day is give to each patient for 3 month. In this study total 52 patients were registered and 50 patients completed the course of treatment. Both combine therapy of Mahatriphaladya Ghrita and Ashchyotana has given better result.*

Keywords: Abhishyanda, Allergic Conjunctivitis, Mahatriphaladya Ghrita, Ashchyotana

1. Introduction

The term Abhishyanda is explained by our all Acharya, which is one of the Sarvagata Netra Rogas. Abhishyanda is the root cause of almost all the eye disorder¹; if it is not treated in proper time ultimately it may cause complication like Adhimantha², Avranashukla³ etc.

Abhishyanda is Categorized into four groups viz- Vataja, Pittaja, Kaphaja and Raktaja. Abhishyanda is characterized by Kandu (Itching), Ragata (Redness), Nistoda (Pricking pain), Sangharsha (foreign body sensation), Ashrusrava (watery discharge), Parushya (dryness), Pichchila Srava (Ropy discharge) etc. which are very similar to the symptoms of the Allergic Conjunctivitis. So, Abhishyanda can be co-related with Allergic Conjunctivitis. (Prevalence 5-22% of the general population; Recurrence in 41-62% cases)⁴.

An allergic response is an overreaction of the body's immune system to foreign substances known as allergens. When the eye comes into contact with certain allergens, an allergic response can result. Plant pollens, animal dander, dust mites, mold spores, grass and ragweed, cosmetics and perfumes, skin medicines, and air pollution often cause allergies. Our eyes have millions of mast cells that release chemicals, causing the symptoms of Allergic conjunctivitis⁵. Simple Allergic conjunctivitis is the most common form of ocular allergy. It is a hypersensitivity reaction to specific airborne antigens⁶.

Among the various Medicines told for the treatment of Abhishyanda by different Acharyas, the Mahatriphaladya Ghrita⁷ which is indicated in the treatment of all the Abhishyanda by Bhaishajya Ratnavali was selected. All the ingredients Triphala, Bhringraja, Vasa, Shatavari, Guduchi, Amalaki, Pippali, Mishri, Draksha, Neelakamala, Yashtimadhu, Kshirakakoli, Gambhari, Ghrita, Goat's milk. are having Tridosha Shamaka, Chakshusya, Deepaniya and Rasayana properties.

Ashchyotana is foremost procedure indicated in all the ocular⁸ so keeping this point in mind Mahatriphaladya Ghrita along with Ashchyotana with Triphala decoction was selected in the present study.

This work has been carried out under CCRAS, Ayurveda Clinical Trial (ACT) project of Ayurvedic Pharmacopoeia Committee (APC).

Aims and Objectives

The present study has been undertaken with the following aims and objectives:-

Primary End Point:

- A critical study on etio-pathogenesis of Abhishyanda- Allergic Conjunctivitis from Ayurvedic and modern point of view.
- To evaluate the efficacy of Mahatriphaladya Ghrita orally in management of Allergic Conjunctivitis.

Secondary End Point:

- To evaluate the effect of treatment on IgE.

Volume 10 Issue 1, January 2021

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- To evaluate the predominant Dosha in patients of Abhishyanda (Allergic Conjunctivitis)

2. Material and Methods

Source of data

Patients attending the O.P.D. and I.P.D. of department of Shalakya, I.P.G.T. & R.A., hospital with signs and symptoms of Simple Allergic Conjunctivitis (Abhishyanda), between the ages of 16 – 35 were selected for the present study. A total number of 52 patients were registered by open single trial method. A detailed special research proforma was prepared as per the modern and Ayurvedic points. After taking ophthalmic and systemic history, a detailed conjunctival examination was carried out by touch light and slit lamp before and after the treatment.

The trial drug Mahatriphaladya Ghrita was given 15ml twice a day with Anupana of luke warm water in empty stomach For Ashchyotana formulation Yavakuta was done in pharmacy of Gujarat Ayurveda University, and Kwatha was prepared. Before starting the treatment patient was given Hingvastaka Churna 5gm twice a day before meal with luke warm water for 3 days on 4th day night Avipatikara Churna 5gm was given at bed time with luke warm water. Then on 5th day onward Mahatriphaladya Ghrita and Ashchyotana is given for 3 month.

Inclusion Criteria:

- 1) Patients presenting with signs and symptoms of Abhishyanda (Allergic Conjunctivitis).
- 2) Patients between 16 to 35 years of age.

Exclusion Criteria:

- 1) Patients having complications like corneal involvement like marginal corneal ulcer, dacryocystitis, trachoma, kerato conjunctivitis etc.
- 2) Patients below 16 years and above 35 years
- 3) Infective conjunctivitis
- 4) Patients having genetic predisposition to allergy.

The diagnosis of Abhishyanda – Allergic Conjunctivitis was done on the basis of signs and symptoms from both the modern and Ayurvedic basis view. This study has been cleared by Institutional Ethics Committee vide letter No./PGT/7-A/Ethics2010-2011/1858 dated 01/09/2010. Written consent was taken from each patient willing to participate before start of the study. Patients were free to withdraw their name from the study at any time without giving any reason.

Investigations:

Investigations like routine haematological, random blood sugar and serum cholesterol, HbA1c were done to rule out associated systemic pathology. Absolute Eosinophils Count and IgE was carried out before and after the treatment.

Posology:

Day I, II& III (Dipana)- Hingvashtaka Churna 3-5 gms before meal twice a day with Lukewarm water.

Day IV (Virechana)- Avipattikara Churna 5gms at bed time with luke warm water

Day V onward:

Mahatriphaladya Ghrita (Oral) (API – Part – II; Vol II; Pg 102-104).

Dose : 15 ml twice daily

Route of Administration : Oral

Time of Administration : Twice a day (Empty stomach in the morning and 3hrs before taking meals in evening)

Anupana : Luke warm water

Duration of therapy : 12 weeks

The assessment of Mahatriphaladya Ghrita on Abhishyanda –Allergic Conjunctivitis was done by subjective parameters and objective parameters.

- Subjective parameters: It was assessed by relief found in signs and symptoms of the Abhishyanda –Allergic Conjunctivitis. Scoring of each symptom was done on the basis of VAS (visual analogue scale).
- Objective parameters: It was assessed by decrease in AEC (Absolute Eosinophil Count) and IgE (Immunoglobulin E).

The obtained data on the basis of observations were subjected to statistical analysis in term of mean, standard deviation, standard error and paired “t” test were conceded.

3. Observations and Results

For the present clinical study, 52 patients were registered out of which 50 patients completed the treatment.

- Maximum number of patients i.e. 53.84 % belonged to age group of 16- 20 years. Maximum number of patient’s i.e. 63.46 % were male. Maximum i.e. 55.76 % patients were student. Maximum i.e. 90.38 % patients were Hindus. Maximum i.e. 76.92 % patients belonged to Yuva. Maximum i.e. 82.69 % patients were belonging to above poverty line. Maximum i.e. 82.69 % patients were taking vegetarian diet. Maximum number of patients’ i.e. 92.30 % were having Negative family history. Maximum number of the patients i.e. 90.38 % had acute on chronic onset. Maximum number of the patients i.e. 28.84 % had duration of between 1-6 month and 2-3 years. Maximum patient 76.92% were allergen to dust, smoke, and wind. 13.46 % patients were having history of allergic rhinitis. Maximum i.e. 40.38 % patients had Vata-Kapha Prakriti.
- 65.38% patients were having Sangarsha, 46.15% were having Nistoda, 34.61% patient were having Siroabhitapa, 32.69% patient were having Stamba, 30.76% patients were having Sisiraashruta and 13.46% patient were having Parushya.
- Maximum patient 100% were having Ragata, 76.92% were having Sisirabhinanda, 75% were having Daha, 69.23% were having Bashpasamuchraya and 61.53% were having Ushna ashruta.
- Maximum i.e. 100% patient were having Kandu and Pichchila Srava 98.07% were having Upadeha, 53.84% patient were having Guruta, 46.15% were having Muhusrava, 25% were having Ushnavinanda, 15.38% were having Sopha and 03.84% were having Atisaitya.

Effect of therapy on cardinal symptoms

Kandu was relieved by 66.95% ($p < 0.001$), Nistoda was relieved by 85.71% ($p < 0.001$), Ragata was relieved by 59.80% ($p < 0.001$), Ashrusrava was relieved by 74.46%

($p < 0.001$), Sangarsha was relieved by 75.90% ($p < 0.001$), Prakasha Asahisnuta was relieved by 70.66% ($p < 0.001$), Guruta was relieved by 75% ($p < 0.001$), Parushya was relieved by 87.05% ($p < 0.05$), Daha was relieved by 60.27% ($p < 0.001$), Pichchila srava was relieved by 80.70% ($p < 0.001$), Siroabhitapa was relieved by 85% ($p < 0.001$).

Effect of therapy on signs of allergic conjunctivitis

Lid swelling was relieved by 89.47% ($p < 0.01$), congestion was relieved by 56.71% ($p < 0.001$), lid follicles was relieved by 71.66% ($p < 0.001$), papillary hyperplasia was relieved by 75% ($p < 0.05$).

EFFECT of therapy on AEC and IgE:

The AEC (Absolute Eosinophils Count) was reduced by 10.25%, The IgE (immunoglobulin E) was reduced by 5.97% ($p < 0.10$).

Effect of therapy during follow up

Symptoms like Sangarsha (< 0.10), Daha (< 0.10) and Pichchila Srava (< 0.10) were observed during follow up period of one month, which is statistically insignificant.

Overall effect of therapy

Cured was not observed in any patients (0.00%), marked improvement was observed in 32%, moderate improvement was observed in 60%, mild improvement was observed in 04% and only 4% were unchanged

4. Discussion

Allergic Conjunctivitis is the commonest defect affecting the eyes leading to functional disturbances and can even account to impairment of vision if cornea is involved. In the current era human beings are highly exposed to pollution and this introduces contaminants to environment that causes instability, disorder and harm to the ecosystem. Ultimately this entire polluted end in a single word- Allergy. Abhishyanda is a condition in which all Netravaha Srotas get Shyandatva and leads to condition like discharge from all parts of eye. It is one among the root cause of all the eye disorder. From above observation we found that Pittaja and Kaphaja Abhishyanda Lakshana more in maximum number of patient of Allergic Conjunctivitis. There is marked improvement in symptoms like Kandu (Itching), Nistoda (Pricking pain), Ragata (Redness), Ashrusrava (Lacrimation), Sangarsha (F.B sensation), Prakasha Asahisnuta (Photophobia), Daha (Burning sensation), Pichchila srava (Ropy discharge).

Selection of Mahatriphaladya Ghrita Orally

Sneha is said to be Param Agnideepana, since the Mulakarana of all Rogas is said to be Ama due to Manda Agni. Here, after Pachana, Deepana; for the Sandhukshna of Agni, Sneha form of medicine i.e Mahatriphaladya Ghrita is selected.

When we analyze the Guna Karma of the ingredient used in Mahatriphaladya Ghrita as:-

Drava Dravya:- Laghu, Ruksha, Sheeta, Snigdha, Deepaniya, Chakshusya along with Tridosha Shamaka.
Kalka: Deepaniya, Chakshusya, Rasayana, Tridosha Shamaka

Ghrita: Chakshusya, Tridosha Shamaka

Indications mentioned in Phalashruti too denotes Mahatriphaladya Ghrita is a best option in the following condition:-

- 1) It is beneficial in all Tridoshaja Netra Vikara
- 2) All Abhishyanda and Adhimantha Vikara
- 3) Netra Kandu and Netra Srava
- 4) Naktandya and other Drusti Vikara
- 5) Timira, Kacha and Nilika and also
- 6) Improve the Drusti like eagles view

With the following above said properties Mahatriphaladya Ghrita was successful in the management of Abhishyanda (Allergic Conjunctivitis)

Probable mode of action of Ashchyotana

According to our Acharya when Ashchyotana (Tropical drop) is instilled in eye, it passes through Netra Sandhi, Sira, Nasika, Mukha Srotas and expelled the Mala of Urdwajatra.⁹

5. Conclusion

Among all the Nidana of Netra Roga, Raja Sevana, Dhuma Sevana and Mithya Ahara Viraha can be considered as specific Nidana for Abhishyanda –Allergic conjunctivitis.

Both Mahatriphaladya Ghrita orally and Ashchyotana with Triphala decoction combined therapy gave highly significant results in the symptoms and signs of Allergic Conjunctivitis (Abhishyanda). But reoccurrence of certain symptoms like Sangarsha (< 0.10), Daha (< 0.10) and Pichchila Srava (< 0.10) were observed during follow up period of one month. But they were found to be statistically insignificant. From this observation one can infer that the efficacy of the trial drug is also seen in follow up period too.

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