## Clinical Study

# A Comparative Study on the Effect of Triyushanadi Anjana and Sodium Cromoglycate 2% Eye Drops on Kaphaja Abhishyanda W.S.R. To Spring Catarrh

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#### **Abstract**

Humankind is still suffering from much different type of eye diseases. Description of four types of Abhishyanda had found amongst 76 diseases of eye in Ayurvedic texts. Kaphaja Abhishyanda is one among the four Abhishyanda whose feature are similar to spring catarrh. comparative study had been done between Triyushanadi Anjana (which is a herbomineral compound containing Triyushna, Triphala, Vakra, Saindhava lavana and Manahshila) and Sodium cromoglycate 2% eye drops, which is a mast cell stabilizer, on Spring Catarrh. The effect of Triyushanadi Anjana on the conjunctival Cytology changes was the prime objective of this study. Triyushanadi Anjana show good results in comparison of Sodium Cromoglycate 2% eye drops.

#### सारांश :

लोगों में विभिन्न प्रकार के नेत्र रोग पाये जाते हैं। आयुर्वेद में ७६ प्रकार के नेत्ररोगों का वर्णन है। नेत्ररोगों के अन्तर्गत चार प्रकार के अभिष्यन्द का वर्णन है तथा कफज अभिष्यन्द उनमें से एक है जिसके लक्षण स्प्रिंग कैटाराह से मिलते जुलते हैं। त्र्यूषणादि अंजन और सोडियम क्रोमोग्लाइकेट २.१ प्रतिशत आई ड्राप्स का तुलनात्मक अध्ययन उपरोक्त व्याधि में किया गया। शोध के परिणाम में यह पाया गया कि त्र्यूषणादि अंजन सोडियम क्रोमोग्लाइकेट २.१ प्रतिशत ड्राप्स से अधिक गुणकारी है।

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#### Introduction:-

Ayurveda is a science that continues to encompass as ever expecting spectrum of subsequence, each of which appears to endlessly widen its horizons as new principle evolve and formerly held tenets are modified. The main aim of Ayurveda is to provide good quality life that is why emphasis is given on preventive aspect before planning the management of the disease.

Mankind is still suffering from many different type of eye diseases. Description of four types of Abhishyanda is found amongst 76 diseases of eye in Ayurvedic texts. The word 'Syanda' is used in reference to the Abhishyanda disease, its literary means is an excessive discharge from eyes. Out of four Abhishyandas, Kaphaja Abhishyanda is characterized by the presence of Kandu (itching), ushnaabhinanda (liking for hot fomentation), gurata (heaviness of lids), updeha (stickiness of eye leshes with discharge) srava muhur pichhil (recurrent ropy discharge), Akshi shofa (swelling in eye), jadjyam (hypofunction of the eye) etc. are quite similar to Spring Catarrh (vernal keratoconjunctivitis). Spring Catarrh is a common ocular ailment of child hood and adolescent age group as described in modern ophthalmology texts. It affects the overall development of the child. The prognosis of Spring Catarrh is complicated by indiscriminate and prolonged use of steroid which lead to steroid induced cataract glaucoma, scleromalacia, corneal thinning and ultimately severe visual loss. Moreover Abhishyarda is often considered as root cause of other eye disease as stated in Sushruta Samhita.

### Aims And Obejectives of the study :-

☐ To see the similarity of Kaphaja Abhishyanda with that of Spring Catarrh.

- □ To study the effect of Triyushanadi Anjana which is a herbomineral compound containing Triyushna, Triphala, Vakra, Saindhava lavana and Manahshila (B.Rt. 64/207- netra rogadhikar) and Sodium cromoglycate 2% eye drops, which is a mast cell stabilizer, on Spring Catarrh. The effect of Triyushanadi Anjana on the conjunctival Cytology changes are the prime objective of this study.
- ☐ To study side effects/toxic effects of the drugs if any.
- ☐ To study the prevalence of spring catarrh in that area where the study is to be done and compare it with available data.

#### Material and Method:-

To meet the above objectives of that research work, study was divided under two headings as :-

- 1. Conceptual study: In this detailed review of material available in texts of Ayuruveda as well as modern literatures was carried out to know about the disease and the drugs.
- 2. Clinical study: The patients presenting with clinical features of Kaphaja Abhishyanda (Spring Catarrh) were selected for that study from Shalakya Tantra O.P.D. (Netrarog unit) of hospital affiliated to R.G.G.P.G. Ayurvedic college, Paprola, Kangra (H.P.) and randomly divided in two groups.
- **Group I-** Standard group (Drug used Sodium cromoglycate 2% eye drops) topically four times a day for 30 days.
- **Group II-** Trial group (Drug used Triyushnadi Anjana) applied topically with glass rod two times a day for 30 days.

Total 32 patients (18 in group I &14 in group

II) between the age group of 5-20 years presenting with clinical features of Kaphaja Abhishyada (Spring Catarrh) were registered into that study. The randomly selected patients were divided in two groups. Routine examination of Blood, urine & stool were carried out in all patients but the specific investigation (Conjunctival cytology) was carried out only in trial group.

Effect of the therapies were assessed in total 28 patients (14 In each group) on the basis of changes observed in cardinal symptoms, signs and statistical analysis was conducted to know their significance. Four patients of group-I were drop out because of various reasons.

#### Discussion :-

- ☐ In this study maximum No. of patients were of age group 5-10 years (62.50%), male (84.37%), Hindu (100%), students (90.62%), receiving primary education (37.50%), unmarried (100%), belong to middle socioeconomic class (59.38%),
- resident of rural area (100%), enjoyed mix diet (75%) and madhura rasa in their meal (50%).

- ☐ Majority of patients were having good appetite (53.13%), no addiction (73.75%) and negative family history (84.37%).
- ☐ Most of the patient has Madhya Koshtha, Samagni, Kapha Pittaj Prakriti, Madhyama dehabala & Nirama stage of the disease.
- 50% patients had onset of disease in summer season while other 50% had clinical features of disease throughout the year.
- ☐ Symptoms of Spring Catarrh were found in decreasing order of percentage as itching (100%), lacrimation (81.25%), photophobia (65.62%), Ropy discharge (46.87%), F.B.S. (46.87%) burning sensation (34.37%) and heaviness of lids (18.75%).
- □ Palpebral ad bulbar conjunctival congestion were found in 93.75% patients while palpebral papillary hypertrophy in 37.5% patients. Keratitis was also found in 15.62% patients.

The effect of therapies in terms of percentage relief and level of significance is tabulated below:-

S.	Symptoms and	Group I (Standard group)		Group II (Trial group)	
No.	Signs	% relief	Level of significance	% relief	Level of significance
1.	Itching	57.77	<0.01	89.60	<0.001
2.	Lacrimation	60	<0.01	86.95	<0.001
3.	Ropy discharge	63	<0.05	71.55	<0.01
4.	Heaviness of lids	50	>0.05	75	< 0.05
5.	Photophobia	81.96	<0.001	100	<0.001
6.	Foreign body sensation	75	<0.05	100	<0.001
7.	Burning sensation	84	<0.01	100	<0.01
8.	Conjuctival Congestion			0.0	
	i) Bulbar ii) Palpebral	47 50	<0.01 <0.01	82 69.93	<0.001 <0.001
9.	Conjuctival Hypertrophy				
	i) Bulbar	9.31	<0.05	56	<0.001
	ii) Palpebral	20	<0.05	52	< 0.01
10.	Keratitis	50	<0.05	77	>0.05

### Intra group Comparison:-

In comparative analysis over criteria's of assessment, no significant difference was observed statistically between the two therapies. Although overall percentage relief was more in-group II then group I.

#### Conclusions:-

The conclusions drawn from the studies were as follows.

- ♦ The disease entity Spring Catarrh includes all the clinical features of Kaphaja Abhishyanda.
- ♦ The incidence were very high in that area because the level of pollution by pollens and others allergens was relatively high due to eminent prevalence of vegetative flora in that region.
- Results of conjunctival cytology before treating with Triyushanadi Anjana showed that there were

type I and type IV hypersensitivity reactions occurred, which are according to textual reference; but the effect of Triyushanadi Anjana could not be concluded because of unavailability of samples of conjunctival tissues in sufficient No after treatment.

The results of both therapies are quite effective which were also signified statistically although percentage relief in clinical features were more in trial (Triyushanadi Anjana) than standard group (Sodium Cromoglycate 2% eye drops),

No toxic/side effect was observed during and after the trail with both therapies. However initially few irritations was observed after application of Triyushanadi Anjana to conjunctiva, but it was reduced up to large extent by keeping the eyelide closed for five minutes after application of drug. The Triyushanadi Anjana is also a cost effective drug in comparison to sodium cromoglycate 2% eye drops