



Research Article

EFFECT OF *TRAYUSHNADI ANJANA* IN THE MANAGEMENT OF *KAPHAJA ABHISHYANDA* W.S.R VERNAL KERATOCONJUNCTIVITIS: A PILOT STUDY

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ABSTRACT

Vernal Keratoconjunctivitis is an unusually severe sight threatening allergic eye disease, in which patient suffers from intense itching, photophobia, tearing and heaviness in eyes and so on. It occurs mainly in children of age group between 5 to 20 years mainly and the disease requires long term medications. On reviewing the clinical presentation from all the Ayurvedic texts it is found that Vernal Keratoconjunctivitis ensembles with *Kaphaja Netra Abhishyanda*. Ayurvedic treatment could bring very promising result in bringing down the signs and symptoms of Vernal Keratoconjunctivitis with the following. **Aim and Objective:** To evaluate the efficacy of *Trayushnadi Anjana* in *Kaphaja Netra Abhishyanda*/Vernal Keratoconjunctivitis. **Material and Methods:** 15 clinically diagnosed patients of *Kaphaja Netra Abhishyanda*/ Vernal Keratoconjunctivitis were randomly selected from OPD/IPD of Rishikul Ayurvedic College and Hospital, Haridwar. Local application of eye-ointment *Trayushnadi Anjana* on lower fornix was given 2 times a day on each eye, for 15 days. Results: 6.7% patients were cured, 33.3% patients were marked improved 33.3% patients were moderately improved and 26.7% patients were mild improved. **Conclusion:** *Trayushnadi Anjana* showed good results in itching, stickiness, watering and redness in both the eyes of patients who were selected for this study.

KEYWORDS: Vernal Keratoconjunctivitis, *Kaphaja Abhishyanda*, *Trayushnadi Anjana*.

INTRODUCTION

Vernal keratoconjunctivitis is a type of allergic conjunctivitis^[1] which is a disease of early age group and becoming more important cause of corneal visual impairment and blindness. The majority of affected patients are male under the age of 20years.^[2] And more patients tend to outgrow the condition by age 30.^[3] The disease is more common in warm and dry climate.^[4] In this disease child suffers from intense itching, photophobia, tearing and heaviness in eyes and so on.

In Ayurveda, clinical pictures of *Abhishyanda* nearly simulate with the term conjunctivitis which is also an ocular inflammatory disease causing great threat to the vision.

Kaphaja Abhishyanda^[5] (one of four types of *Abhishyanda*) as explained in Ayurvedic literature has the relevance with Vernal Keratoconjunctivitis. It is characterized by *Kandu* (itching), *Guruta* (heaviness of lids), *Akshishopha* (edema), *Muhur-Pichchhilsrava* (ropy discharge), *Updeha* (stickiness), *Annana-abhinanda* (anorexia)^[6] etc.

Drugs being used in modern ophthalmology gives symptomatic relief and long term use of these medicines are so costly and having large ground of adverse effects like preservatives induced dry eye, steroid induced cataract and steroid induced glaucoma etc. So there is need to find out an effective Ayurvedic treatment which can treat the disease without causing other complications in the eye and develop significant relief in the symptoms of the patients. The pilot study was planned to evaluate the Ayurvedic drug on the chronicity of the disease and planned

Aim and objective

To evaluate the efficacy of *Trayushnadi Anjana*^[7] in *Kaphaja Abhishyanda*/Vernal keratoconjunctivitis.

Formulation of ingredients table

All the herbal drugs were taken in equal amount (200gm each) and decoction was made in eight times of water (11lt) till it remains 1/4th of it^[8], then 1/4th part (2.8lt) of this decoction was filtered and again boiled till it became thicker. After this all

the *Ghana Satva* (320gm) was dried in tray drier at temperature 35-45°C and powdered.

Now *Saindhava Lavana* and *Manahshila* were added in 1/7th part of above powdered drug and

mixed well. At the end vaseline was taken as base ingredient and then the whole powder was mixed in liquid Vaseline in the ratio of 40:60.

Table 1: The contents of Trayushnadi Anjana and the proportion

Drug	Latin Name	Family	Part Used	Ratio
Shunthi	<i>Zingiber officinale</i>	Zingiberaceae	Root (Rhizome)	200gm
Marich	<i>Piper Nigrum</i>	Piperaceae	Dried unripe Fruit	200gm
Pippali	<i>Piper Longum</i>	Piperaceae	Dried Fruit	200gm
Haritaki	<i>Terminaliachebula</i>	Combretaceae	Dried Fruit	200gm
Vibhitaki	<i>Terminaliabellirica</i>	Combretaceae	Dried Fruit	200gm
Amalaki	<i>Emblikaofficinale</i>	Euphorbiaceae	Dried Fruit	200gm
Tagar	<i>Valerianawallichii</i>	Valerianaceae		200gm
Manahshila (As ₂ S ₃)	-	-		1/7 th part of <i>Ghana</i>
Saindhava Lavanna	-	-		1/7 th part of <i>Ghana</i>

MATERIALS AND METHODS

Selection of Patients

Patients from O.P.D of *Shalaky Tantra* department were selected randomly for the proposed study.

Inclusion Criteria

- Patient willing and able to follow the treatment.
- Patients aged between 5-20 years.
- Patients, presenting with sign and symptoms of *Kaphaja Abhishyanda*/Vernal keratoconjunctivitis.

Exclusion Criteria

- Patients having complications like corneal xerosis, phlyctenular keratoconjunctivitis corneal ulcer, trachoma, dacryocystitis, and infective conjunctivitis.
- Patients having with any systemic diseases e.g- worm infestation.

Investigations

- CBC
- TLC
- DLC

- ESR
- Absolute eosinophil count
- Conjunctiva cytology
- Stool-ova Test

Procedure

- In all the patients *Deepan-Pachan (Chitrakadi Vati* 1 to 2 tab thrice a day with lukewarm water) was given for 3 to 7 days according to *Kostha*, prior to *Anjana Karma*.

- *Trayushnadi Anjana* (ointment form for local application) for 15 days.

Dose: 2 *Harenu* (60mg approx) local application of ointment *Trayushnadi Anjana* on lower fornix, 2 times a day

Follow up Study: After completion of treatment, there were 2 follow ups at the interval of 15 days.

Clinical Assessment

The sign and symptoms were assessed by adopting a suitable grading method. The details are as follows.

Table 2: Subjective Parameters

1.	<i>Guruta</i> (heaviness on lids)	0- No heaviness on lids 1- Heaviness on lids only in the morning 2- Intermittent heaviness on lids 3- Continuous heaviness of lids
2.	<i>Kandu</i> (itching)	0- No itching 1- Itching only on exposure to dust or other allergens 2- Intermittent itching 3- Continuous itching affecting routine work
3.	<i>Upadeha/ Pihchila Srava</i> (Ropy discharge)	0- No ropy discharge 1- Ropy discharge only in morning time 2- Ropy discharge with no mopping required 3- Continuous ropy discharge, mopping required

4.	Muhu-muhursrava (repeated lacrimation)	0- No repeated lacrimation 1- Lacrimation on exposure to dust/sunlight 2- Intermittent repeated lacrimation 3- Continuous lacrimation affecting daily routine
5.	Photophobia	0- No photophobia 1- Photophobia on exposure to sun light 2- Intermittent photophobia 3- Continuous photophobia affecting routine work.
6.	Burning sensation	0- No burning sensation 1- Only on exposure to sun light 2- Intermittent burning sensation 3- Continuous burning sensation affecting routine work
7.	Anna-Nabhinanda (Anorexia)	0- No Anorexia 1- Anorexia
Objective Parameters		
1.	Palpabral Conjunctival congestion	0- Congestion absent 1- Congestion with clear pattern of blood vessels 2- Congestion with poorly visible pattern of blood vessels 3- Velvety conjunctiva with loss of blood vessels pattern
2.	Bulbar Conjunctival congestion	0- Congestion absent 1- Brownish bulbar conjunctiva 2- Conjunctival congestion in palpebral aperture 3- Complete congestion in bulbar conjunctiva
3.	Palpabral Conjunctiva Hypertrophy	0- Conjunctival hypertrophy absent 1- Diffuse conjunctival hypertrophy 2- Cobble stone papillae 3- Giant cauliflower like papillae with copious mucus
4.	Bulbar Conjunctiva Hypertrophy	0- Heaping absent 1- Slight heaping on conjunctiva <180° 2- Heaping of conjunctiva <360° circumcorneal encroachment 3- Heaping of complete bulbar conjunctiva
5.	Horner Tranta's Spot	0- No tranta's spot. 1- Tranta's spot 1-2 in no. 2- Tranta's spot 3-5 in no. 3- >5 Tranta's spot

RESULTS AND DISCUSSION

OBSERVATIONS

Age wise distribution shows that 46.7% patients were in age group 5-10 years, 6.7% were in age group 10-15 years and 46.7% were in 15-20 years. In analysis 66.7% male patients were found during study and rest 33.3% were female. Maximum cases i.e. 14 patients (93.3%) were found of Hindu religion, 1 patients (6.7%) of Muslim religion. Analysis of socio-economic status showed that the majority of the patients belonged to middle class i.e. 73.3%, whereas 26.7% patients were from upper middle class of the society. It was observed that the

73.3% patients were consuming vegetarian diet whereas, 26.7% patients were on mixed diet. Most of the patients i.e. 53.3% had good appetite, 40.0% had medium appetite and rest i.e. 6.7% had poor appetite. Most of the patients i.e. 73.3% were having regular bowel habits, while 13.3% patients had irregular bowel habit and 13.3% patients were having constipation. In this study maximum patient i.e. 86.7% had no family history of allergy, 13.3% had family history of allergic disease. In this study maximum patient i.e., 53.3% were of *Kapha-Vata*

prakriti, 13.3% were having *Kapha-Pitta*, 33.3% had *Vaat-pitta Prakriti*. The chronicity wise distribution indicates that maximum number of the patients i.e. 33.3% with chronicity less than 1 month and 53.3% with chronicity more than 6 months and 13.3% patients were with chronicity between 1to 6 months.

Table 3: Effect of therapy

Symptoms	Median		Wilcoxon Signed Rank W	P- Value	% Effect	Result
	BT	AT				
<i>Guruta</i> (Heaviness on lids) RE	0	0	-2.121 ^a	0.034	85.7	Sig
<i>Guruta</i> (Heaviness on lids) LE	0	0	-2.121 ^a	0.034	85.7	Sig
<i>Kandu</i> (Itching) RE	2	1	-3.314 ^a	0.001	71.0	Sig
<i>Kandu</i> (Itching) LE	2	1	-3.286 ^a	0.001	70.0	Sig
<i>Updeha</i> (Stickiness) RE	1	0	-3.276 ^a	0.001	77.8	Sig
<i>Updeha</i> (Stickiness) LE	1	0	-3.276 ^a	0.001	77.8	Sig
<i>Muhur-muhursrava</i> (Repeated Lacrimation) RE	2	0	-3.153 ^a	0.002	70.8	Sig
<i>Muhur-muhursrava</i> (Repeated Lacrimation) LE	2	0	-3.286 ^a	0.001	75.0	Sig
Photophobia RE	1	0	-2.000 ^a	0.046	50.0	Sig
Photophobia LE	1	0	-2.000 ^a	0.046	50.0	Sig
Burning Sensation RE	1	0	-2.070 ^a	0.038	66.7	Sig
Burning Sensation LE	1	0	-2.271 ^a	0.023	61.5	Sig
Palpabral Conjunctival hypertrophy RE	2	2	-1.407 ^a	0.263	NA	NS
Palpabral Conjunctival hypertrophy LE	2	2	-1.391 ^a	0.215	NA	NS
Bulbar Conjunctival hypertrophy RE	1	1	-1.276 ^a	0.273	NA	NS
Bulbar Conjunctival hypertrophy LE	1	1	-1.217 ^a	0.327	NA	NS
Horner Tranta's Spots RE	0	0	-1.857 ^a	0.063	66.7	NS
Horner Tranta's Spots LE	0	0	-1.000 ^a	0.317	25.0	NS
<i>Anna-nabhinanda</i> (Anorexia)	1	0	-2.565 ^a	0.010	65.0	Sig

Table 4: Percentage reliefs in Therapy

Symptoms	Percentage relief
<i>Guruta</i> (Heaviness on lids) RE	85.7 %
<i>Guruta</i> (Heaviness on lids) LE	85.7 %
<i>Kandu</i> (Itching) RE	71.0 %
<i>Kandu</i> (Itching) LE	70.0 %
<i>Upadeha</i> (Stickiness) RE	77.8 %
<i>Upadeha</i> (Stickiness) LE	77.8 %
<i>Muhur-muhur Srava</i> (Repeated Lacrimation) RE	70.8 %
<i>Muhur-muhur Srava</i> (Repeated Lacrimation) LE	75.0 %
Photophobia RE	50.0 %
Photophobia LE	50.0 %
Burning Sensation RE	66.7 %
Burning Sensation LE	61.5 %
Palpabral Conjunctival Congestion RE	71.4 %
Palpabral Conjunctival Congestion LE	65.6 %
Bulbar Conjunctival Congestion RE	63.6 %
Bulbar Conjunctival Congestion LE	68.2 %
Palpabral Conjunctival hypertrophy RE	NA
Palpabral Conjunctival Hypertrophy LE	NA
Bulbar Conjunctival Hypertrophy RE	NA

Bulbar Conjunctival Hypertrophy LE	NA
Horner Tranta's Spots RE	66.7 %
Horner Tranta's Spots LE	25.0 %
Anna-nabhinanda (Anorexia)	65.0 %

Probable Mode of Action of Trayushnadi Anjana

By the administration of *Trayushnadi Anjana* eye ointment in the lower fornix of eyes, absorption of the drug occurs through various layers of the eyes and the drug spread to the deeper tissues through *Sira*, *Srotasa* and *Sandhi* of *Netra*, due to properties of *Trayushnadi Anjana* like, *Chakshushya*, *Rasayana*, *Rakta-Shodhaka*, *Sothahara*, *Vedanasthapaka* and *Ushna Veerya*. It also eliminates the *Doshas* through *Aushadha Prabhava* and relief in the symptoms of disease by two ways:

1. *Kapha Dosha Lekhana, Vaatanulomana*
2. Proper production of *Uttarottara Dhatu*

By these property of this drug it give relieve in the sign and symptoms of disease *Kaphaja Abhishyanda* like, *Kandu*, *Updeha*, *Snigdha-pichhila Srava*, *Guruta* etc.

CONCLUSION

Trayushnadi Anjana showed statistically highly significant results in *Kandu* (Itching in eyes), *Updeha* (stickiness in eyes), *Palpabral* and *bulbar conjunctival congestion* in both the eyes, *Muhurmuhursrava* (repeated lacrimation) in left eye and rest of parameters showed significant result except *Palpabral* and *bulbar conjunctival hypertrophy* and *Horner Tranta's spots*.

DISCUSSION

- Ingredients of drug *Trayushnadi Anjana* are having *Karmas* (actions) like, *Shothahara*, *Vedana-Sthapana*, *Raktashodhaka*, *Rasayana*, *Shool-prashamana*. So it may act as anti-inflammatory, analgesic, blood purification action, anti-oxidant and immunomodulator.
- It has high bioavailability due to thick consistency, so it remains in contact to cell for long time and give maximum efficacy to the drugs.

- It has high potency and penetration power because it is a combination of herbo-mineral drug, which make them *Yogavahi* as it is a property of *Rasaushadhi*.

So by the above mentioned properties drug may help in the management of inflammation, infection and do healing of the diseases.

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