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## A Clinical Study to Evaluate Efficacy of *Jalaukavcharana* in the Management of *Kaphaja Netra Abhishyanda* w.s.r. *Vernal Kerato Conjunctivitis*

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### ABSTRACT

**Context:** Eyes are gateways of external world, visual defects tantamount to the obliteration of the world. Among 76 eye diseases *Abhishyanda* is a *Sarvagata Netraroga*. *Acharyas* quoted that *Abhishyanda* is a root cause of almost all the eye disorders. On reviewing the clinical presentation from the classical *Ayurvedic* text, *Vernal Kerato Conjunctivitis* resembles *Kaphaja Abhishyanda*. *VKC* is recurrent, bilateral, interstitial, self limiting allergic inflammation of the conjunctiva having periodic seasonal incidence. According to modern science treatments of *Vernal Kerato Conjunctivitis* mainly aims at NSAIDs, Corticosteroids, Mast cell stabilisers etc which usually provides Symptomatic Relief. Hence a study was designed to find a better solution of the problem.

**Aims & Objectives-** 1.To establish relation between *Kaphaja Abhishyanda* and *Vernal Kerato Conjunctivitis*. 2. To evaluate the efficacy of *Jalaukavacharan* in patients of *Kaphaja Abhishyanda*. **Materials & Methods** -Fifteen clinically diagnosed patients of *Kaphaja Netra Abhishyanda* /*Vernal Kerato Conjunctivitis* were randomly selected from OPD/IPD of Rishikul Campus, Haridwar. *Jalaukavacharana* was done in three sittings for each eye with a gap of three days. **Results-** 53.3 % Patients were Marked Improved 26.3% Patients were Moderately Improved and 20% Patients were Mild Improved.

### KEYWORDS

*Kaphaja Abhishyanda* , *Jalaukavacharana* , *Vernal Kerato Conjunctivitis*



**Greentree Group**

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## INTRODUCTION

“*Sarvendriyanam Nayan Pradhanam*”. This quotation itself gives the importance of eyes (Netra). *Aacharya Sushruta* has described 76 eye diseases with their treatment both in medicinal and surgical way. Among 76 eye diseases *Abhishyanda* is a *Sarvagata Netraroga*<sup>1</sup>. Though it has been said that the disease *Abhishyanda* is a curable entity, but if it takes a chronic course it may lead to complications like *Adhimantha*<sup>2</sup>. *Acharyas* quoted that *Abhishyanda* is a root cause of almost all the eye disorders<sup>3</sup>. In day to day practice of ophthalmology, the rate of occurrence of *Abhishyanda* is more due to present style of living and unhygienic practices of people and being the foremost part of the eye, the conjunctiva is frequently exposed to foreign bodies and exogenous organisms. According to *Acharya Sushruta* and *Acharya Vagbhatta Kaphaja* *Abhishyanda* is characterized by *Kandu*(itching), *Guruta*(heavy lids), *Akshishopha*(edema), *Muhur-pichchhil* *Srava*(ropy discharge), *Updeh* (stickiness), *Annana abhinanda* (anorexia) etc<sup>4,5</sup>

On reviewing the clinical presentation from the classical *Ayurvedic* text, clinical features of Vernal Kerato Conjunctivitis resembles *Kaphaja Abhishyanda*. The disease spring catarrh nomenclature is indicative of season

*Vasanta Ritu*, it is the *Kapha Prakopa* period of the year as per the *Ayurvedic* principles and childhood age group is the *Kapha* dominating period of life. VKC is recurrent, bilateral, interstitial, self limiting allergic inflammation of the conjunctiva having periodic seasonal incidence, also known as warm weather conjunctivitis or Spring catarrh<sup>6</sup>. It is a common disease in this modern era due to environment pollution. Vernal keratoconjunctivitis (VKC) is the most troublesome, wherein the patient suffers from intense itching, grittiness, mucoid discharge, redness, lacrimation, photophobia<sup>7</sup>, and so on. The disease is chronic / refractory and becomes worse during the warm months – more common in summer. Rarely it may cause corneal ulcer or keratoconus effecting vision. Mast cell stabilizers, NSAIDs and topical corticosteroids are the treatment options<sup>8</sup>, but usually symptomatic relief is the outcome. On the other hand, drug sensitivity, increasing resistance, preservative-induced dry eye as well as the complications of the corticosteroids, for example, cataract, glaucoma, and increased risk of bacterial and fungal infections restrict the long-term use of these medicines. In view of magnitude of problem, the discomfort it causes to the patient and the



cost of treatment, there is a need of develop of a treatment which is free of side effects, cheaper and has a significant effect in relieving the symptoms of the patients. In *Ayurveda* various treatments had been mentioned for *Kaphaja Abhishyanda* including *Raktamokshana*<sup>9</sup>. It is safely indicated in all mankind including the patients having poor threshold to pain.

Application of *leech* mitigates diseases in eyes. *Jalukavacharana* has the property to subside immediately the pain, swelling, burning sensation and redness<sup>10</sup>. Hence, present study is an attempt undertaken to scientifically study the effect of *Jalaukavacharana* in the management of *Kaphaja Abhishyanda* w.s.r. to Vernal kerato Conjunctivitis.

## AIMS AND OBJECTIVES

1. To establish relation between *Kaphaja Abhishyanda* and Vernal kerato conjunctivitis.

2. To evaluate the efficacy of *Jalaukavacharan* in patients of *Kaphaja Abhishyanda*.

**Clinical study:** Patients from O.P.D of *Shalakya* deptt. were selected randomly for the proposed study.

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## INCLUSION CRITERIA

- Patients of either sex age between 4-40 years.
- Patients presenting with Sign and symptoms of vernal kerato conjunctivitis.

## EXCLUSION CRETERIA

- Patient suffering from infective conjunctivitis and other ocular infections.
- Patients suffering from bleeding and clotting disorders
- Patients with positive results of HIV and HbsAg

**STUDY DESIGN:** For this study 15 patients were selected on the basis of inclusion & exclusion criteria

## Investigations-

- Hb%
- Absolute Eosinophil Count.
- CT
- BT
- HbsAg
- Conjunctival cytology
- HIV

**PROCEDURE** - *Chittrakadi Vati* and *Hingvastak churna* was given to patient for *Deepana Pachana*.

**PURVAKARMA**<sup>11</sup>-Fresh leeches were taken and a mixture of turmeric paste in water was applied upon them.



**PRADHAN KARMA**<sup>12</sup>-Site taken for *Jalaukavacharana* in *Kaphaja Netrabhishyanda* was Palpebral Conjunctiva. Site was cleaned with water. Then lid was everted and the active Jaluka was made to suck in the palpebral part of conjunctiva. The leech when starts sucking the blood, elevates its neck assuming the shape of a horse shoe. Once leeches start sucking the blood, leech was covered with wet gauze. When itching or pricking pain was produced at the site of application it was inferred that the leech is now sucking the pure blood(after having sucked the vitiated blood). When sucking pure blood leech was removed. If it does not withdraw, a little turmeric powder or common salt powder was sprinkled on the sucking part of the leech.(su.su.13/20-21)

**PASCHAT KARMA**<sup>13</sup>- After it falls off, its body was sprinkled with *Haridra* .

Held at its tail end by thumb and fingers of the left hand and its body kneaded slowly in the downward direction with thumb and fingers of the right hand and Made it vomit all the blood it has consumed. Eye was moped with cotton. *Seka* with *Triphla* was given and the eye was bandaged using 2 drops of *Jatyadi ghrita* .

*Madhu* was applied in eyes twice a day in the gap period.

**DURATION OF THERAPY**-Three sittings with a gap of two days. Intermittently, *Madhu* was applied in eyes in this gap.

**CLINICAL ASSESSMENT** –The signs and Symptoms were assessed by adopting a suitable scoring method .The details are as follow-

**Table 1.**Subjective criteria

REDNESS	0- Absent (vessels normal) 1- Mild (some vessels definitely injected above normal) 2- Moderate (diffusely red eye with individual vessels dilated but still discernible) 3- Severe (intensely red eye with intensive dilatation of conjunctival vessels which are still but not easily visible)
ITICHING	0 – Absent 1 - A mild continuous itch (can be localized) not requiring eye rubbing 2 - A definite itch, the subject would like to rub eye 3 - An incapacitating itch which would require significant eye rubbing
WATERING (LACRIMATION )	0 – Absent 1 - Mild (eyes feel slightly watery) 2 - Moderate (occasional need to wipe eyes) 3 - Severe (tears rolling down cheeks)



PHOTOPHOBIA	0 – Absent 1 - Photophobia only during exposure to sunlight) 2 - Intermittent photophobia 3 - Continuous photophobia
CONJUNCTIVAL HYPERTROPHY	0-Absent 1-Diffuse conjunctival hypertrophy 2-Few Cobble stone Papillae 3-Giant Papillae with Mucous

## OBSERVATIONS

Age wise distribution shows that 13.3% were in age group 0-10 years, 66.7% were in age group of 10-20 years, 20% were in 20-30 years. In analysis 53.3% of Patients were male and rest 46.6% were Females. Maximum cases i.e., 11 patients (73.3 %) were Hindus and 54 patients (26.6%) were Muslims. On considering the nature of occupation, it was found that all patients 100% were students. In analysis 30 patient (100%) were found unmarried during study. Analysis of socio-economic status showed that the majority of the patients belonged to

middle class i.e., 10 patients, whereas 3 patients were from upper middle class of the society. Two patients were reported from Lower class. In this study majority of the patients i.e., 96.7% had sound sleep while rest of the 3.3 % patients had disturbed sleep.

In this study maximum patient i.e 56.7% were of *kapha-vata prakriti*, 23.3% were having *vata-pitta*, 20% had *pitta-kapha prakriti*. Above table highlights the chronicity wise distribution, which indicates that maximum number of the patients i.e. 73.3 % with chronicity more than 1 year and 26.7% with chronicity less than 1 year .

**Table 2** Effect of Therapy

Symptoms	Media		Wilcoxon Signed Rank W	P-Value	% Effect	Result
	BT	AT				
Redness RE	2	1	-3.508 <sup>a</sup>	0.000	71.9	Sig
Redness LE	3	1	-2.771 <sup>a</sup>	0.006	65.3	Sig
Itching RE	3	0	-3.473 <sup>a</sup>	0.001	89.5	Sig
Itching LE	3	0	-3.531 <sup>a</sup>	0.000	81.6	Sig
Watering RE	2	1	-3.473 <sup>a</sup>	0.001	76.5	Sig
Watering LE	2	0	-3.176 <sup>a</sup>	0.001	66.7	Sig
Photophobia RE	2	0	-3.256 <sup>a</sup>	0.001	76.9	Sig
Photophobia LE	1	0	-3.500 <sup>a</sup>	0.000	77.8	Sig
PCH RE	3	0	-3.477 <sup>a</sup>	0.001	81.6	Sig
PCH LE	2	1	-3.482 <sup>a</sup>	0.000	73.0	Sig
Trantas Spots RE	0	1	-3.577 <sup>a</sup>	0.004	38.1	Sig
Trantas Spots LE	0	0	-2.236 <sup>a</sup>	0.025	41.5	Sig

**Table 3** Percentage Relief in Therapy

Symptom	% Reilef
	Group A
Redness RE	71.9
Redness LE	65.3
Itching RE	89.5
Itching LE	81.6
Watering RE	76.5
Watering LE	66.7
Photophobia RE	76.9
Photophobia LE	77.8
PCH RE	81.6
PCH LE	73.0
Trantas Spots RE	38.1
Trantas Spots LE	41.5

## CONCLUSION

- Based upon the detailed conceptual description , it can be concluded that *Kaphaja Abhishyanda and Vernal*

## PROBABLE MODE OF ACTION OF *JALAUKAVACHARANA*-

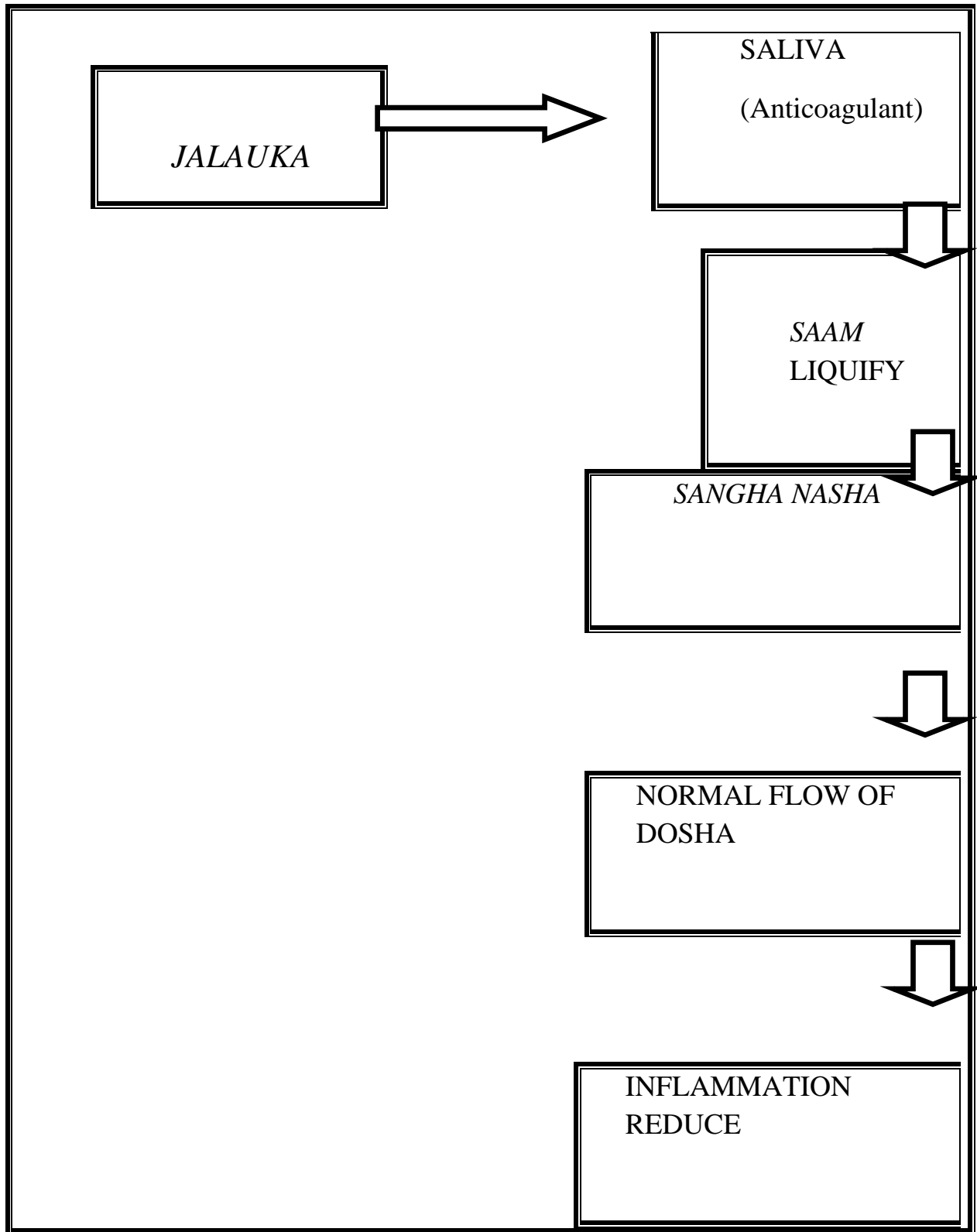
From modern point of view, the treatment of disease conditions with medicinal leeches is termed as Hirudotherapy (*Jalaukavacharana*). From modern perspective, The saliva of leech contains following biochemicals<sup>14</sup>-

**Table 4-** Chemical Constituents of Jalauaka -

1.	Hirudin, calin, Destabilase, Hirustasin	Anti coagulant
2.	Bdellins,Eglins	Anti inflammatory
3.	Histamin	Acetylcholine
4.	Tryptase inhibitor	Inhibit proteolytic enzyme of host mast cells.

kerato conjunctivitis , both are nearly same entities.

- Jalaukavacharana* showed statistically significant result on subjective parameters.







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