



## A CLINICAL STUDY ON ADHIMANTHA AND IT'S MANAGEMENT WITH NAYANAMRITA LAUHA AND TRIPHALADI VARTI

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### ABSTRACT

*Adhimantha* is a disease which has been mentioned by *Sushruta* as an intense feeling of the eye, wherein eye seems to be being extracted out and churned up alongwith the involvement of the half of the head in association with specific features of the particular *Dosha* involved. Glaucoma is a disease which is characterized by raised intra-ocular pressure, optic disc cupping and visual field defect. The clinical study was done on 79 patients of *Kaphaja Adhimantha* in 4 different groups. Group A was treated with *Triphaladi Varti*. Group B was treated with *Nayanamrita Lauha*. Group C was combined group wherein both *Nayanamrita Lauha* and *Triphaladi Varti* were given. Group D was treated with placebo eye drop (*Saurastra Netra Bindu*). After the enrolment of the patients for this study, signs and symptoms such as dimness of vision, heaviness in head, coloured haloes, optic disc changes, IOP and visual field changes were studied before, during and after the treatment. The study indicates that combined group showed better results as compared to other groups.

**KEYWORDS:** *Adhimantha*, Glaucoma, *Nayanamrita Lauha*, *Triphaladi Varti*.

### INTRODUCTION

*Ayurveda*, the science of life is the very foundation stone of medical knowledge in India. History of Indian medicine reveals that it was *Ayurveda* which formed the very beginning of the art of healing. *Ayurveda* which dealt extraneously with all the aspects of life and disease. It was the science which was divided into eight specialties that itself indicates how much advance was the science of life at that time. Of the eight disciplines, *Shalaky Tantra* is claimed to be the second one in order by *Sushruta*.

*Adhimantha* has been contributed to negligence or improper management of *Abhishyanda* both from diagnostic as well as treatment point of view.<sup>[1,2]</sup> Further the disease *Adhimantha* presents the features that are similar to those of glaucoma in modern science. The term glaucoma does not define a disease entity but embraces a composite features of pathological conditions which have the common features of their clinical manifestation that are more or less dominated by the raised intra-ocular pressure and its consequences.<sup>[3]</sup>

The present trend of treating glaucoma is hypotensive medical treatment, meiotic therapy, carbonic anhydrase

inhibitors and osmotic agents.<sup>[4]</sup> In most cases this treatment is followed by surgical treatment. In spite of all these treatment modalities, these treatment modalities have very little effect while surgery is not out of danger. Considering these facts the present study was undertaken to find out its solution for the management of *Adhimantha*.

For clinical study, *Kaphaja Adhimantha* was selected. While *Nayanamrita Lauha* was selected from *Rasendra Sara Sangraha*, *Triphaladi Varti* was selected from *Sushruta Samhita*.

### AIMS AND OBJECTIVES

The study was aimed at-

- To analyse the types of *Adhimantha* and to define them in reference to glaucoma.
- To explore textually the aetiopathogenesis of *Adhimantha* according to *Ayurvedic* concept as well as modern point of view.
- To evaluate the efficacy of the trial drug on *Adhimantha*.
- To find out the effect of the drug on the signs and symptoms of glaucoma as per modern parameters.

## MATERIAL AND METHODS

Selection of patients: Source of data: Patients of Adhimantha-Glaucoma fulfilling the inclusion criteria attending OPD of Shalaky Tantra, IPGT & RA, GAU, Jamnagar.

Proforma: A detailed proforma was prepared incorporating Ayurvedic and modern points.

Inclusion criteria: The patients having features of Adhimantha-Glaucoma and free from any other complications were selected for the clinical study irrespective of their age, sex, caste etc.

Assessment criteria: The criteria for assessment was based on signs and symptoms of disease Adhimanthadescribed in Ayurveda as well as modern texts. In addition to the textual reference, pathological investigations and various eye examinations were also considered for the assessment.

Group A: Total 21 patients were registered in this group. Triphaladi Varti was given 2 drops/3times a day in the form of Eye Drop.

Group B: Total 20 patients were registered in this group. Nayanamrita Lauha was given as an internal medicine in the dose of 250 mg/3 times a day.

Group C: Total 22 patients were registered in this group. Nayanamrita Lauha and Triphaladi Varti were given in a similar dose as a combined therapy.

Group D: It was a placebo group in which 16 patients were registered and given Saurashtra Netra Bindu Eye drop.

### Dose

1. Nayanamrita Lauha 250 mg. 3 times a day with milk for 6 months.
2. Triphaladi Varti 2 drops 3 times a day for 6 months.

### Preparation of Drug

Trial drugs were prepared in Pharmacy of Gujarat Ayurved University, Jamnagar.

1. *Nayanamrita Lauha (Rasendra Sara Sangraha, Netra Roga Chikitsa 2/9-10)* contains *Haritaki, Vibhitaki, Aamalaki, Shunthi, Maricha, Pippali, Karkatshringi, Kachura, Munakka, Kumuda, Mulethi, Bala, Bhrinagraja, Vrahati, Kantakari, Abhrakbhasma,* and *Lauhabhasma*.
2. All the drugs were taken in equal amount. First of all their fine powder was prepared. Then *Bhavanaw* was given to the entire mixture of compound 7 times by *Triphala kwatha* and *Brinagraja Swarasa* respectively. After *Bhavana* the entire compound was allowed to dry. Thereafter the drug was filled in capsules in the dose of 250 mg.
3. *Triphaladi varti* (Su. Ut. 11/9-10, A.H.Ut. 16/24) contains *Haritaki, Aamalaki, Vibhitaki, Mulethi, Haridra, Saindhava Lavana, Shankha Nabhi* and *Samudrafen*. All the drugs were taken in equal amount. Their fine powder was prepared and the entire combination was mixed distilled water which was taken in double amount to that of combination. The drug was then put on distillation

apparatus and its extract was evaporated out in the form of transparent liquid substance which was subsequently used as an eye drop.

*Diet & Restriction:* All the patients were advised to consume *Shatavari, Patola, Amalaki* etc. and avoid food substances having *Katu, Kashaya, Tikta* and *Amla Rasa* and avoid activities causing unnecessary stain on eye.

*Follow-up:* After completion of therapy, patients were followed-up for 6 months. No adverse effects of the medicines were seen.

*Statistical test:* Based on observations, the datas obtained were statistically analysed in terms of mean, standard deviation, standard error and unpaired 't' test was considered at the level of  $p < 0.001$  as highly significant,  $p < 0.05$  or  $p < 0.01$  as significant and  $p < 0.10$  or  $p > 0.01$  as insignificant to assess the results.

*Design of study:* The study was carried out on 120 patients of *Adhimantha*. Out of which 79 completed treatment while 41 patients left the treatment. All patients were selected from OPD, Dept. of *Shalaky*, IPGT & RA, GAU, Jamnagar.

*Ethical clearance:* The study was cleared by the ethical committee of the institute. Written consent from each patient willing to take medicines was taken before the start of the therapy. Those patients who were unable to read or write, their thumb impression was taken.

### Assessment for overall effect of therapy

1. Cured: 100% improvement in the subjective and objective findings.
2. Markedly Improved: 71% to 99% improvement in the subjective and objective findings.
3. Moderately Improved: 51% to 70% improvement in the subjective and objective findings.
4. Improved: 26% to 50% improvement in the subjective and objective findings.
5. Unchanged: Up to 25% improvement in the subjective and objective findings.

## OBSERVATIONS AND RESULTS

Out of 79 patients studied in this work, maximum patients (40.83%) were found in the age group of 45-50 years. Higher incidence (75.9%) was noted in males. maximum patients were Hindus (85.9%).

### Total effect of therapy

In group D (Placebo) no significant results were found in signs and symptoms ( $p > 0.05$ ). In group A (Local Medicine) significant results were observed in symptoms like dimness of vision and heaviness in the head ( $p < 0.05$ ). However highly significant result was observed in watering, itching and pain in the eye ( $p < 0.001$ ). No significant results were observed in signs

like visual acuity, IOP, Disc cupping and visual field ( $p>0.05$ ).

**Table 1: Effect of *Triphaladi Varti* (Local medicine) on the cardinal signs & symptoms of 21 patients of *Kaphaja Adhimantha*.**

Symptoms	Mean score		%	SD	SE	t	p
	BT	AT					
Dimness of vision	2.19	1.90	13.24	0.46	0.10	2.80	$p<0.05$
Heaviness in the head	1.42	1.25	11.97	0.43	0.09	2.64	$p<0.05$
Coloured haloes	1.00	0.85	15.00	0.37	0.14	1.00	$p>0.05$
Changes in glasses	1.40	1.20	14.20	0.44	0.20	1.00	$p>0.05$
Watering, itching, pain	1.28	0.71	44.21	0.51	0.13	4.16	$p<0.001$
Signs							
Visual acuity	2.19	1.90	13.24	0.46	0.10	2.80	$p<0.05$
IOP	1.80	1.76	2.22	0.22	0.05	1.00	$p>0.05$
Optic disc cupping	1.23	1.23	0.00	0.22	0.05	1.00	$p>0.05$
Visual Field	1.50	1.40	6.60	0.31	0.10	1.00	$p>0.05$

**Table 2: Effect of *Nayanamrita Lauha* (Internal medicine) on the cardinal signs & symptoms of 20 patients of *KaphajaAdhimantha***

Symptoms	Mean score		%	SD	SE	t	p
	BT	AT					
Dimness of vision	2.05	1.80	12.19	0.44	0.09	2.77	$p<0.05$
Heaviness in the head	1.35	0.95	29.62	0.48	0.10	3.50	$p<0.05$
Coloured haloes	1.11	0.77	30.60	0.72	0.24	2.27	$p<0.05$
Changes in glasses	1.42	1.14	19.71	0.48	0.18	1.55	$p>0.05$
Watering, itching, pain	1.00	0.50	50.00	0.52	0.16	3.12	$p<0.01$
Signs							
Visual acuity	2.05	1.65	19.51	0.68	0.15	2.63	$p<0.05$
IOP	2.05	2.00	2.43	0.22	0.05	1.00	$p>0.05$
Optic disc cupping	1.45	1.45	0.00	0.22	0.05	1.00	$p>0.05$
Visual Field	1.64	1.57	4.26	0.27	0.07	1.00	$p>0.05$

**Table 3: Effect of *Nayanamrita Lauha* (Internal medicine) & *Triphaladi Varti* (Local medicine) on the cardinal signs & symptoms of 22 patients of *Kaphaja Adhimantha*.**

Symptoms	Mean score		%	SD	SE	t	p
	BT	AT					
Dimness of vision	1.90	1.59	16.31	0.47	0.10	3.18	$P<0.01$
Heaviness in the head	1.45	1.00	31.03	0.58	0.12	2.92	$P<0.01$
Coloured haloes	1.15	0.76	33.91	0.50	0.14	2.71	$P<0.05$
Changes in glasses	1.37	1.00	27.00	0.51	0.18	2.05	$P>0.05$
Watering, itching, pain	1.00	0.37	62.50	0.51	0.12	4.39	$P<0.001$
Signs							
Visual acuity	1.86	1.36	26.88	0.67	0.14	3.14	$P<0.01$
IOP	1.36	1.31	3.67	0.21	0.04	1.00	$P>0.05$
Optic disc cupping	1.54	1.54	0.00	0.21	0.04	1.00	$P>0.05$
Visual Field	1.50	1.44	4.00	0.23	0.05	1.00	$P>0.05$

In group B (Int. Medicine) highly significant results were observed in symptoms like watering, itching and pain ( $p<0.01$ ). Significant results were also seen in dimness of vision and heaviness in the head and coloured haloes ( $p<0.05$ ). Significant results were observed in visual acuity of right eye and left eye ( $p>0.05$ ).

In group C (Combined) highly significant results were observed in symptoms like dimness of vision, heaviness in the head, watering, itching and pain ( $p<0.01$ ). Significant results were seen in visual acuity ( $p<0.01$ ).

Other signs such as IOP, optic disc cupping, and visual field defect remained unchanged. Complete cure and marked improvement was not seen in any patient, 26.5% patients showed moderate improvement, 32.9% patients were improved and 40.5% patients were unchanged.

## DISCUSSION

*Adhimantha* has drawn attention of ancient physicians which is evident from the fact that its description, classification, symptomatology, complication and management are available in literature. Even though the

disease *Adhimantha* has been considered as a curable disease if the treatment is given well in time otherwise the disease results in further deterioration and ultimately blindness ensues.

In this study, maximum patients (40.83%) belonged to age group of 41 to 50 years which shows that this age group is highly suspicious to develop glaucoma. Maximum patients (75.9%) were male and Hindu (85.9%). Maximum patients were labourer (48.33%) and married (95%). Maximum patients were having *Vata-Pitta Prakriti* (38.33%), *Madhyam Sara* (66.66%) and *Madhyam Samhanana* (64.16%). Maximum patients were having pathological optic disc cupping (91.66%) in both eyes. Most of the patients had raised intra-ocular pressure (65.0%) in right eye, (63.33%) in left eye respectively. Mild visual field defect was seen (28.33%) in right eye, (33.33%) in left eye respectively.

## CONCLUSION

The scientific explanation of the disease alongwith its symptomatology has brought out the fact that the disease *Adhimantha* has similarity with glaucoma in its clinical presentation. It is one of the clinically defined conditions of the eye wherein at least more than two symptoms need to be looked for. The clinical presentation of the disease is based on symptoms like blurring of vision, pain in the eye, headache, raised intra-ocular pressure, optic disc cupping and visual field changes.

The improvement shown by combined therapy is significant. Although no significant improvement was noted in optic disc cupping, intra-ocular pressure and visual field changes because of degenerative nature of the disease. This study is one step ahead in the direction of research in this field. In fact the results observed are quite encouraging. This study has definitely laid down the foundation for the further research in this direction.

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