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## Research Article

### A PILOT STUDY ON THE ROLE OF SHADANGA GUGGULU AND MADHU SHIGRU ĀŚYOTANA IN THE MANAGEMENT OF ABHISHYANDA WITH SPECIAL REFERENCE TO CONJUNCTIVITIS

Surangi K.G. <sup>1\*</sup>, Shamsa Fiaz <sup>2</sup>

<sup>1</sup>MS Scholar, Department of Shalakyā Tantra, National Institute of Ayurveda, Rajasthan, India

<sup>2</sup>HOD, Department of Shalakyā Tantra, National Institute of Ayurveda, Rajasthan, India

\*Corresponding Author Email: surangikg@gmail.com

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#### ABSTRACT

Abhishyanda is a sarvagata netra roga which involves all parts of the eye and considered as a dreadful disease because it gives rise to all other eye diseases. Conjunctivitis is the inflammation of the conjunctiva manifest itself in many grades and types. This study was planned to evaluate the efficacy of Shadanga Guggulu, Madhu shigru Āśyotana and Thriphalādi Parisheka for all types of Abhishyanda or conjunctivitis and to identify the causative factors for Abhishyanda as per Ayurveda perspective. Fifteen patients with cardinal features of all types of Abhishyanda/conjunctivitis were selected as per the inclusion and exclusion criteria complaining of burning sensation, fuming sensation, excessive lacrimation, hot tearing, yellowish eye, redness in eye, pain in eye, foreign body sensation, heaviness of eye, swelling in eyelids, itching sensation, sticky discharge and headache. Patients were assessed before treatment, on the 3<sup>rd</sup> day, after treatment and after the follow up period. Identified 11 causative factors such as day sleep, inadequate sleep at night, working in dusty environment, repeated eye strain, generally take bath after immediate exposure to heat, excess vinegar and sour edibles. On the 3<sup>rd</sup> day fuming sensation of eyes totally disappeared and 78.57% of eyes released hot tearing, swelling of eye lids and pain in eyes and 75% eyes free from burning sensation. After the trial most of the symptoms disappeared except redness of eyes (42.85%), foreign body sensation (92.85%), itching sensation (78.57%) and sticky discharge (92.85%). It can be concluded that the selected drugs proved to be cost effective and good remedy for treating all types of Abhishyanda/conjunctivitis.

**Keywords:** Abhishyanda, Conjunctivitis, Shadanga Guggulu, Madhu shigru Āśyotana, Thriphalādi Parisheka

#### INTRODUCTION

Ayurveda is a holistic science which deals with preventive and curative aspects of diseases. Eye diseases are explained under the branch of Shalakyā Tantra which deals with all diseases occurring above the clavicle. Abhishyanda is a sarvagata netra roga which involves all parts of the eye and considered as a dreadful disease because it gives rise to all other eye diseases such as Adhimantha and Hatādhimantha.<sup>1, 3</sup> Hence it should be treated promptly<sup>1</sup>. Abhishyanda is derived from two words, “Abhi” and “Syandana.” “Abhi” means more or profuse and “Syandana” means discharge or secretion; the combined meaning is profuse discharge from all parts of the eye. Abhishyanda is four types i.e Vātaja, Pittaja, Kaphaja and Raktaja<sup>1, 2, 3</sup>. It can be correlated with conjunctivitis based on its clinical signs and symptoms. Conjunctivitis is commonly referred to as “red eye” or “pink eye” and is defined as an inflammation of the conjunctiva which manifest itself in many grades and many types; but it is commonly having infective or allergic origin. The most common characteristics of conjunctivitis are conjunctiva hyperemia and ocular discharge<sup>4</sup>. Conjunctivitis has worldwide distribution, affecting all ages, races, social strata, both genders and is a very common ocular pathology.<sup>5</sup> Present study was planned to develop cost effective drug without any side effects helpful in all types of Abhishyanda or conjunctivitis. Hence Shadanga Guggulu<sup>6</sup>, Madhu shigru Āśyotana<sup>7</sup> and Thriphalādi Parisheka which are commonly used in Eye OPD of National Institute of Ayurveda, Jaipur were selected. Shadanga Guggulu is an important formulation particularly recommended in eye diseases associated with

inflammatory conditions. Madhu shigru Āśyotana is widely recommended in all types of Abhishyanda.

#### AIMS AND OBJECTIVES

1. To evaluate the efficacy of above drugs in all varieties of Abhishyanda/Conjunctivitis.
2. To identify the causative factors for Abhishyanda as per Ayurveda perspective.

#### MATERIAL AND METHODS

Fifteen patients attended to eye OPD in the National Institute of Ayurveda, Jaipur, Rajasthan, India with cardinal features of all types of Abhishyanda or conjunctivitis were selected as per the inclusion and exclusion criteria.

#### Inclusion Criteria

All patients within the age group of 15-65 years, with signs and symptoms of Abhishyanda irrespective of any type of conjunctivitis and who is willing to participate in the present study were selected irrespective of their race, religion, sex, caste and socio-economic status.

#### Exclusion Criteria

Patients having any other known ocular pathology such as opacities, raised IOP etc. were excluded.

### Diagnosis Criteria

Patients were diagnosed by signs and symptoms of all types of Abhishyanda such as burning sensation, fuming sensation, excessive lacrimation, hot tearing, yellowish eye, redness in eye, pain in eye, foreign body sensation, heaviness of eye, swelling in eyelids, itching sensation, excess of secretion and headache. ESR was done before and after the treatment.

### Assessment Criteria

The assessment was done before treatment, on the 3<sup>rd</sup> day and after 7 days of treatment. Also the follow up was done on the 14<sup>th</sup> day. The signs and symptoms were assessed by self-designed scoring system, described in the Table 1.

### Method of drug preparation

Shadanga Guggulu contains six ingredients namely *Terminalia berelica* (Vibhitaka), *Terminalia chebula* (Haritaki), *Phyllanthus emblica* (Āmla), leaves of *Trichosanthes cucumerina* (Patōla), leaves of *Azadirachta indica* (Ariṣṭa) and leaves of *Adathoda vasica* (Vāsā) with *Commiphora mukul* (Gugul). As per the authentic references it can be prepared as a gugal preparation, a decoction or a grita guggulu preparation. For this study gugal preparation was prepared at the department of Rasa Shastra and Baishajya Kalpana, NIA, Jaipur.

Madhu shigru Āśyotana contains honey (Madhu), leaves of *Moringa olefera* (Shigru patra) and rock salt (Saindhava lavana). It is prepared every day at the eye OPD in the ratio of 1 part of Shigru patra swarasa (fresh juice of leaves), 4 parts of bee honey and a pinch of powdered rock salt for 5ml of above mixture.

Thriphalādi parisheka contains equal quantity of powder of *Terminalia berelica* (Vibhitaka), *Terminalia chebula* (Haritaki), *Phyllanthus emblica* (Āmla), *Glycyrrhiza glabra* (Yashtimadhu), leaves of *Azadirachta indica* (Ariṣṭa) and leaves of *Moringa olefera* (Shigrupatra). Also prepared daily in the eye OPD.

### Drug administration procedure

1. Shadanga Guggulu- Given orally 1g, 2 times per day with lukewarm water for 7 days
2. Madhu shigru Āśyotana – Topically administered one drop in each eye, 2 times per day for 7 days
3. Thriphalādi parisheka– 30 ml of decoction poured in each eye for 3min 7 days.

### Data analyzing and Statistical methods

For the analyzing of signs and symptoms; each individual taken as two because two eyes were considered separately. All the data was analyzed by Microsoft Excel-2007 and presented as percentages.

### OBSERVATIONS AND RESULTS

Fifteen patients were selected for the present study but one patient dropped on the 2<sup>nd</sup> day. Thus 14 patients were assessed and all of them belonged to urban area. According to demographic data majority of the patients were females (79%) and belonged to 2 main religions, Hindus (53%) and Islam (47%). Maximum number of patients were in the age group of 15-25years (43%), 36-45years (29%) and 26-35 years (21%). There were 64% of married patients, 57% were vegetarians. As per the economic status, 50% were poor and 50% were middle economic group.

None of them showed related family history. Considering their treatment history, 37% were taking allopathic treatment and 14% preferred Ayurvedic treatment and the rest did not take any medicine.

Considering causative factors maximum patients (64.28%) showed habit of day time sleeping. Inadequate sleep at night, involved work in dusty environment, very often got worried and who had constant eye straining profession (57.14%). Hot tempered (50%), generally take bath immediate after exposure to heat (35.71%), habit of taking excessive liquids at night (35.71%), habit of taking excess vinegar and other sour edibles (35.71%), usually sleeping with elevated pillow (35.71%) were the other significant causes.

As per the figure 1, all the patients showed excess of lacrimation and congestion in any part of the conjunctiva. Apart from these 93% had itching sensation of eyes, burning sensation (87%) and sticky discharge (87%) were observed.

On the 3<sup>rd</sup> day fuming sensation of eyes totally disappeared (100%) and 78.57% of eyes got relief from hot lacrimation, swelling of eye lids and pain in eyes and 75% eyes were free from burning sensation. Also 53.57% got relief from excessive lacrimation, foreign body sensation, and heaviness of eyes. Further observed 57.14%, 46.42% and 21.42% got relief from headache, sticky discharge and itching sensation respectively. But all patients had persistence of redness on 3<sup>rd</sup> day of treatment.

After the trial (on the 8<sup>th</sup> day) burning sensation, fuming sensation, discharge, hot lacrimation, pain in eyes, swelling of eye lids, heaviness of eyes and headache disappeared 100%. Redness of eyes, foreign body sensation, itching sensation and sticky discharge relieved by 42.85%, 92.85%, 78.57% and 92.85% respectively. After the follow up period of 7 days all the signs and symptoms totally disappeared except redness of eyes (71.43%) and itching sensation (71.43%).

### DISCUSSION

The following study shows that this disease is prevalent in the age group of 15-25years (43%) and 36-45years (29%). This may be due to exposure to polluted environment and outdoor activities. Due to busy life style and lack of nutritious food they had decreased immunity. All subjects belonged to urban which indicates increased risk to environmental pollution, smoky and dusty environment; these are the causative factors for conjunctivitis as per modern view. Maximum number of patients showed habit of day time sleeping (64.28%) and excessive intake of liquids at night (35.71%) which aggravates Kapha Dosha and increased tendency to acquire Kaphaja Abhishyanda. Inadequate sleep at night (57.14%), constant eye strain (57.14%) and worries (57.14%) are the causative factors of Vāta Dosha aggravation and cause Vātaja Abhishyanda. Habit of taking excess vinegar and other sour edibles (35.71%) and hot temper (50%) aggravates Pitta Dosha and Rakta Dosha which may cause Pittaja and Raktaja Abhishyanda respectively. Constant eye strain leads to pain in eye and constant rubbing of eyes with chances of inflammation. Generally after bath immediate exposure to hot sunlight/heat (35.71%) causes dilated blood vessels to rupture due to quick changes in temperature causing congestion in conjunctiva (Raktaja Abhishyanda).

Hyperemia and ocular discharge are the cardinal symptoms of conjunctivitis. Almost all the patients presented these features. After the trial most of the symptoms disappeared completely except redness of eyes (42.85%), foreign body sensation

(92.85%), itching sensation (78.57%) and sticky discharge (92.85%).

**Table 1: Scoring system for symptoms**

Symptom	Scoring System			
	1- No	2 - Mild	3 - Moderate	4 - Severe
01. Dāha (Burning sensation)	No Burning sensation	Occasionally present, not disturbing daily routine	Frequently present, disturbing daily routine	Present throughout disturbing daily routine
02. Bāshpatā (Fuming sensation)	No fuming sensation	Occasionally present, not disturbing daily routine	Frequently present, disturbing daily routine	Present, throughout disturbing daily routine
03. Atiaśrutā (Excessive Lacrimation)	No excessive lacrimation	Occasionally present, no need to wipe with handkerchief	Frequently present, needs to wipe with handkerchief and not disturbing daily routine	Present throughout the day, needs to wipe with handkerchief disturbing daily routine
04. Ushnāśrutā (Hot tearing)	No hot tearing	Hot tearing		
05. Pitaka nēthratā (Yellowish eye)	No yellowish discoloration	Pale yellowish discoloration	Marked yellowish discoloration	
06. Rakta nēthratā (Redness in eye)	No congestion	Congestion in tarsal conjunctiva only	Congestion in bulbar conjunctiva only	Congestion in both bulbar and tarsal conjunctiva
07. Tōda (Pain in eye)	No pain	Occasionally present and not disturbing daily routine	Frequently present and disturbing daily routine	Present continuously disturbing daily routine
08. Gharshanatā (Foreign body sensation)	No foreign body sensation	Occasionally present and not disturbing daily routine	Frequently present and disturbing daily routine	Present continuously disturbing daily routine
09. Gurutā (Heaviness of eye)	No heaviness	Occasionally present and not disturbing daily routine	Frequently present and disturbing daily routine	Present continuously and disturbing daily routine
10. Shōphatā (Swelling in eyelids)	No swelling	Swelling in one eye lid with mild discomfort	Swelling in both eye lids with intermediate discomfort	Swelling in either of lid and feeling discomfort
11. Kandutā (Itching sensation)	No itching sensation	Occasionally present without need for rubbing	Frequently present and needs to rub occasionally	Present continuously, needs to rub frequently
12. Pichchilarāva (Sticky Discharge)	Absent	Present only on waking up	Intermittently present	Present throughout the day
13. Shirah Shoola (Headache)	No headache	Occasionally present and not disturbing daily routine	Frequently present and disturbing daily routine	Present throughout the day and disturbing daily routine

**Table 2: Incidence of signs and symptoms in percentage**

Signs and Symptoms	Percentage															
	Before trial				3 <sup>rd</sup> day				After trial				After follow up			
	0	1	2	3	0	1	2	3	0	1	2	3	0	1	2	3
Burning sensation	14	36	29	21	75	18	7	0	100	0	0	0	100	0	0	0
Fuming sensation	79	21	0	0	100	0	0	0	100	0	0	0	100	0	0	0
Discharge	7	43	39	11	54	36	4	7	100	0	0	0	100	0	0	0
Hot Lacrimation	68	21	11	0	79	21	0	0	100	0	0	0	100	0	0	0
Redness of eyes	7	32	14	46	0	43	21	36	43	50	7	0	71	21	7	0
Pain in eyes	36	29	36	0	79	21	0	0	100	0	0	0	100	0	0	0
Foreign body sensation	36	25	32	7	54	46	0	0	93	7	0	0	100	0	0	0
Heaviness of eyes	32	51	7	0	54	46	0	0	100	0	0	0	100	0	0	0
Swelling eye lids	54	39	7	0	79	21	0	0	100	0	0	0	100	0	0	0
Itching sensation	7	21	29	43	21	21	57	0	79	21	0	0	71	21	7	0
Sticky discharge	14	59	27	0	46	46	7	0	93	7	0	0	100	0	0	0
Headache	36	29	36	0	57	29	14	0	100	0	0	0	100	0	0	0

0- Not significant, 1- Mild, 2- Moderate, 3- Severe

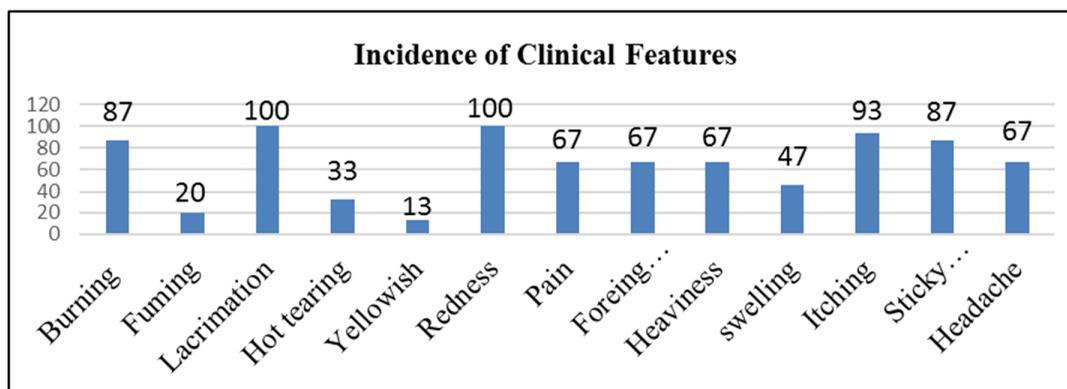


Figure1: Incidence of signs and symptoms

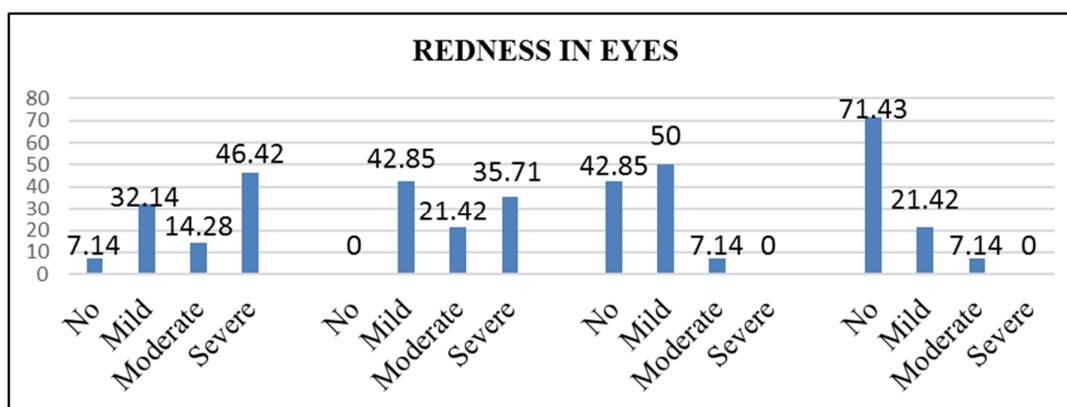


Figure 2: Incidence of redness in eyes

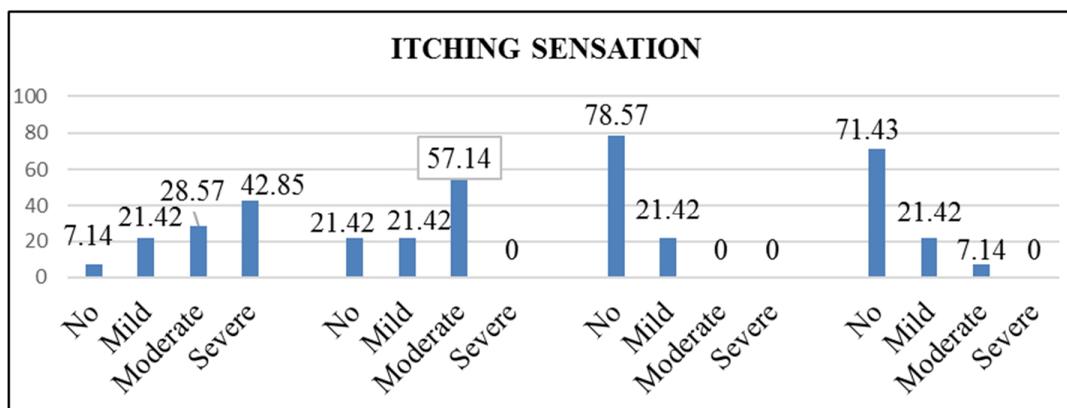


Figure 3: Incidence of itching sensation in eyes

After the follow up period of 7 days all the signs and symptoms completely disappeared but redness of eyes and itching sensation were partially present (28.57%). It was observed that those patients who had incomplete in itching sensation had history of Allergic Rhinitis and hence needed treatment for that condition also. Due to frequent rubbing of eyes there was mild (21%) or moderate (7%) redness in these patients.

#### CONCLUSION

It can be concluded that the selected drugs, Shadanga Guggulu, Madhu shigru Āśyotana and Triphalādi Parisheka proved to be cost effective and good remedy for treating all types of

Abhishyanda/conjunctivitis. But those who suffered from other diseases like Allergic Rhinitis associated with similar signs and symptoms should be treated according to Prati purusha sidhantha at the same time for getting complete relief.

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