



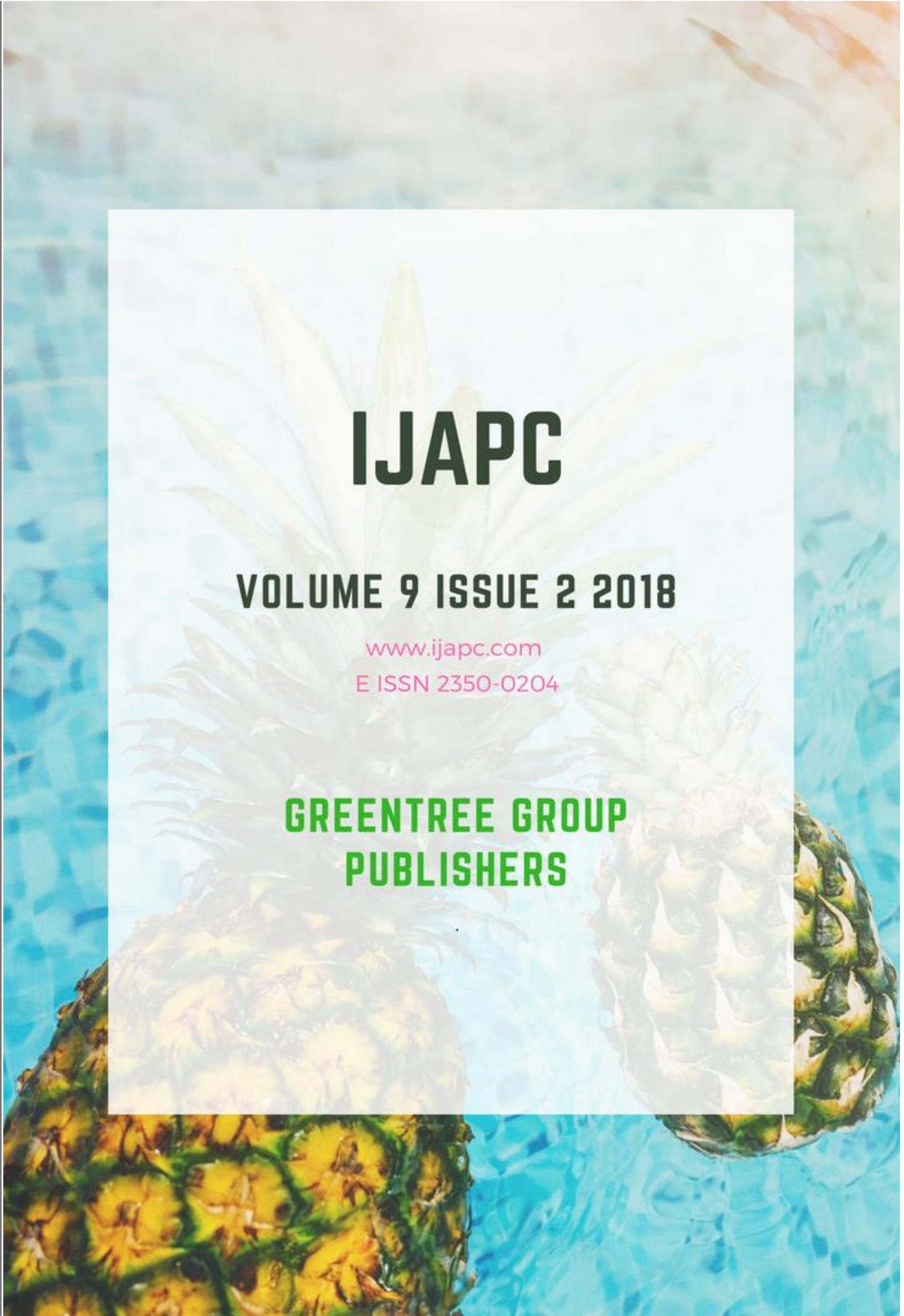
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A Clinico-Comparitive Study on Effect of *Gambhari*, *Amalaki* & *Haritaki Aschyotana* and *Katphala Aschyotana* in the Management of *Shukthika* w.s.r. to Conjunctival Xerosis

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ABSTRACT

Introduction: The Xerosis of conjunctiva is a symptomatic condition in which conjunctiva becomes dry, lustreless and non wettable. These patches almost always involve the interpalpabral area of the temporal quadrants and often nasal quadrants as well. Typical xerosis may be associated with conjunctival thickening, wrinkling and pigmentation.

Xerosis is correlated with Shukthika as per Ayurvedic reference. In this disease, a small elevated blackish spot resembling shell appears in shukla mandala. There are various non invasive as well as safe treatment modalities told in Ayurvedic classics for the treatment of Shukthika.

Gambhari, Amalaki & Haritaki Aschyotana and Katphala Aschyotana are the two medicines mentioned in Susruta Samhitha in the management of Shukthika. Hence an attempt is made with such a set of simple and effective measures picked up from Ayurvedic treatise i.e. topical instillation of Gambhari, Amalaki & Haritaki eye drops and Katphala eye drops in Shukthika and an assessment has been made as regard to the efficacy of both and the same will be compared in the present study.

Materials & Methods: Patients with the classical features of Shukthika were selected. Forty patients of Shukthika were randomly selected and equally divided into the following two groups. In Group A Gambhari, Amalaki and Haritaki Aschyotana was performed (7 or 8 drops once in a day) for 30 days. In Group B Katphala Aschyotana was performed (7 or 8 drops once in a day) for 30 days.

Results: In general topical instillation of Gambhari, Amalaki & Haritaki eye drops was found to be more efficacious when compared to topical instillation of Katphala eye drops. Symptoms like pain in eyes, dryness and no. of patches responded more with Gambhari, Amalaki & Haritaki Ashchyotana whereas symptoms like burning sensation and size of the patch responded more with Katphala Aschyotana.

Conclusion: As per Susruta samhita, the **causative dosha in Shukthika is PITTA** and hence treatment involves mitigating this pitta dosha. It is told in Susruta samhita that the causative



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dosha should be eliminated. Both Gambhari, Amalaki & Haritaki Ashchyotana and Katphala Ashchyotana are having properties to eliminate pitta dosha. Both the medicines tried in the present research are pittahara and are considered best for the eyes. Both Gambhari, Amalaki & Haritaki ashchyotana and Katphala ashchyotana are cost effective, safe and easy procedure which can be done by the patient himself in their own homes.

KEYWORDS

Shukthika, Gambhari, Amlaki, Haritaki, Kataphala, Conjunctival Xerosis



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INTRODUCTION

The word Ayurveda is a combination of two words: 'Ayus' and 'Veda'. Veda is derived from the Sanskrit root 'Vid' meaning 'Jnane'. Therefore, Ayurveda is the knowledge or science of Ayus. Charaka has comprehensively defined 'Ayu' as a unified state of physical body – Sarira, cognitive organs – Indriyas, mind – Manas and soul – Atma and therefore signifies a living human being.

Shalakya is an important branch of Ayurveda which deals with disease manifesting above the clavicular region. Acharya Nimi is considered as the supreme authority in Shalakya tantra but it was Acharya Susruta who explained the subject in a systematic manner in Uttaratantra of Sushruta samhitha.

The Xerosis of conjunctiva is a symptomatic condition in which conjunctiva becomes dry, lustureless and non wettable. These patches almost always involve the inter-palpabral area of the temporal quadrants and often nasal quadrants as well. Typical xerosis may be associated with conjunctival thickening, wrinkling and pigmentation¹. It occurs in two groups of cases: (i) as a sequel of a local ocular affection and (ii) associated with general disease. The first type is cicatricial degeneration of the conjunctival epithelium

and glands following trachoma, burns, diphtheria, etc. commencing in isolated spots, ultimately involving the whole conjunctiva and cornea. Prolonged exposure due to ectropion or proptosis, where in the eye is not properly covered by lids, also in a dry eye².

Based on a deficient serum retinol, there are more than 125million preschool ages children with Vitamin A deficiency among whom close to 4 million have an ocular manifestation of some kind, termed broadly as Xerophthalmia. Management as per modern medical science includes oral and intramuscular supplementation of Vitamin A³.

Xerosis is correlated with Shukthika as per Ayurvedic reference. In this disease, a small elevated blackish spot resembling shell appears in shukla mandala⁴. There are various non invasive as well as safe treatment modalities told in Ayurvedic classics for the treatment of Shukthika. These can be done on O.P.D. level and as well as by the patient himself and are cheap and convenient.

Gambhari, Amalaki & Haritaki aschyotana and Katphala aschyotana are the two medicines mentioned in Susruta Samhitha in the management of Shukthika⁴. Hence an attempt is made with such a set of simple and effective measures picked up from Ayurvedic treatise i.e. topical instillation of



Gambhari, Amalaki & Haritaki eye drops and Katphala eye drops in Shukthika and an assessment will be made as regard to the efficacy of both and the same will be compared in the present study.

Ethical Committee Approval no.
AMC/89/2013-14 Date 26/4/2013

METHODOLOGY

Introduction

Shukthika is a disease of Netra, comes under the classification of Shukla Gata Roga according to Susruta Samhita. Shukthika is co-related to 'Conjunctival Xerosis'.

The symptoms are –

- a. Raised, silvery white, foamy, triangular patch of keratinized epithelium, situated on the bulbar conjunctiva in the inter-palpebral area¹
- b. Multiple spots/dots resembling oyster shell (shukthi) on sclera⁴
- c. Burning sensation in eyes⁵
- d. Pain in eyes⁵
- e. Diarrhoea⁵
- f. Thirst⁵
- g. Fever⁵

Gambhari, Amalaki & Haritaki Ashchyotana and Katphala Ashchyotana are the two formulations mentioned in Susruta Samhita in the management of Shukthika⁴. Hence topical instillation of Gambhari, Amalaki & Haritaki eye drops

and Katphala eye drops was selected for this study.

The aim and objectives of the present study were –

- To evaluate the efficacy of Gambhari, Amalaki & Haritaki Aschyotana in the management of Shukthika.
- To evaluate the efficacy of Kataphala Aschyotana in the management of Shukthika.
- To compare the efficacies of both the groups in the management of Shukthika.

Ethical Committee Approval Number-
AMC/89/2013-14 Date 26/4/2013

Method of collection of data –

Source of Data

Patients with the classical features of Shukthika were selected from the OPD and IPD of Shalakyta Tantra of Shri. J.G.C.H.S. Ayurveda Medical College Hospital, Ghataprabha

Inclusion criteria –

1. Patients irrespective of age, sex, socioeconomic status and religion were included for the study.
2. Patients with clinical features of Shukthika were taken for the study after proper screening.

Exclusion criteria –

1. Patients who were on supplementation with vitamin A.



2. Patients having any inflammatory disease of the eye.

3. Patients suffering from chronic debilitating systemic diseases.

Groups of treatment –

40 patients of Shukthika were randomly selected and equally divided into the following two groups –

Group A – Gambhari, Amalaki and Haritaki Aschyotana was done.

Dose – 7 or 8 drops once in a day⁶

Duration – 30 days

Group B - Katphala Aschyotana was done.

Dose – 7 or 8 drops once in a day⁶

Duration – 30 days

FOLLOW UP:

The patients of both the groups were followed up every 30 days for 2 months.

Assessment criteria –

Patients were assessed with subjective and objective parameters formulated for

Shukthika before and after treatment and data was subjected to student's paired and unpaired 't' test.

Subjective Parameters –

1. Pain in eyes.
2. Burning sensation
3. Dryness

Objective Parameters –

1. Size of patch
2. Number of patches

RESULTS

Forty patients of Shukthika were treated by randomly dividing them into two groups. Group A patients were given Gambhari, Amalaki & Haritaki Ashchyotana and Group B were given Katphala Ashchyotana. The effects noted in these groups are being described under the respective headings (Table 1 and 2).

Table 1 Effects of Gambhari, Amalaki & Haritaki Ashchyotana on Shukthika

Group A	Mean Score		% of reduction in mean score	SD of Mean (\pm)	SE of Mean (\pm)	't' Value	P Value
	BT	AT					
Pain in eyes	1	0.60	40%	0.28	0.06	3.559	< 0.01
Burning sensation	1.40	0.95	32.14%	0.31	0.07	3.943	< 0.01
Dryness	1	0.40	60%	0.42	0.09	5.339	< 0.01
Size of Patch	2.20	1.5	31.81%	0.49	0.11	6.658	< 0.01
No: of Patches	1.4	0.75	46.42%	0.57	0.12	4.951	<0.01

In general topical instillation of Gambhari, Amalaki & Haritaki eye drops was found to be more efficacious when compared to

topical instillation of Katphala eye drops. Symptoms like pain in eyes, dryness and no. of patches responded more with



Gambhari, Amalaki & Haritaki
ashchyotana whereas symptoms like

burning sensation and size of the patch
responded more with Katphala aschyotana.

Table 2 Effect of Katphala Ashchyotana on Shukthika

Group B	Mean Score		% of reduction in mean score	SD of Mean (\pm)	SE of Mean(\pm)	t'Value	P Value
	BT	AT					
Pain in eyes	0.90	0.65	27.77%	0.17	0.03	2.517	<0.01
Burning sensation	1.1	0.65	40.90%	0.31	0.07	3.943	<0.01
Dryness	1	0.6	40.00%	0.28	0.06	3.559	<0.01
Size of Patch	2.3	1.55	32.60%	0.53	0.12	7.550	<0.01
No: of Patches	1.3	0.85	34.61%	0.59	0.13	3.327	<0.01

DISCUSSION

DISCUSSION ON REVIEW OF LITERATURE

Susruta has explained 76 types of Netra rogas and Shukthika is one among them. The features of Shukthika can be correlated to Conjunctival Xerosis because the main symptoms resemble muscle or sukta (oyster shell) developing on the sclera. Conjunctival Xerosis is clear indicator of Vitamin A deficiency and if left untreated accounts to major ophthalmic complications like Keratomalacia, and structural damages like Xerophthalmic fundus etc.

According to our classics, pitta dosha is responsible for Shukthika. Due to ahara and vihara the pitta dosha undergoes chaya followed by prakopa and sthana samsraya in the eyes to manifest the disease.

This study was designed as a comparative study, in order to compare the efficacy of

Gambhari, Amalaki & Haritaki
Ashchyotana and Katphala Ashchyotana.

DISCUSSION ON MODE OF ACTION OF ASHCHYOTANA

In ashchyotana medicines are allowed to flow. This should be used in the initial stages and can be used in acute conditions. The medicine is poured in the required dosage at the inner canthus. The medicine thus used flows through conjunctival sac and passes to nose. The volume of conjunctival sac is 7 microml and the volume of 1 drop is 50 microml. Obviously the medicine is either wasted or reaches nose for the trans-nasal absorption. Acharyas have described dharanakala of ashchyotana. These are 200 matras for snehana, 100 matras for lekhana and 300 matras for Ropana. Eye drops can't be retained so this dharanakala means instilling appropriate. Now, if we consider 100 matra is equal to one and half minute as told by Kasturishastri, the lekhana drop should be used every 10 to 15 seconds into



8 times. In the same way, each drops every 18 seconds for 10 times for Snehana and each drop every 22 to 24 seconds for Ropana.

Basically, the idea behind this procedure is to use medicine by the use of fat and water soluble extracts from the herbs and other ingredients, keep them in contact with the epithelium of conjunctiva and cornea, thereby transferring essential elements to them.

DISCUSSION ON CLINICAL FEATURES

The cardinal feature of Shukthika, the Conjunctival Xerosis, was present in all patients. Pain in eyes was present in 65% of patients. Burning sensation was present in 95% of cases. Diarrhoea was present in 75% of cases. 87.5% of cases were having increased thirst. Fever was present in 92.5% cases.

Response in group A

After treatment with topical instillation of Gambhari, Amalaki & Haritaki Ashchyotana in group A, pain in eyes reduced by 40% which is highly significant (p value – < 0.01), burning sensation reduced by 32.14% which is highly significant (p value – < 0.01), dryness reduced by 60% which is highly significant (p value – < 0.01), size of patch reduced by 31.81% which is highly significant (p value - < 0.01), number of patches reduced by

46.42% which is highly significant (p value - < 0.01).

Response in group B

After treatment with topical instillation of Katphala Ashchyotana in group B, pain in eyes reduced by 27.77% which is highly significant (p value – < 0.001), burning sensation reduced by 40.90% which is highly significant (p value – < 0.001), dryness reduced by 40% which is highly significant (p value – < 0.001), size of patch reduced by 32.60%, which is highly significant (p value - < 0.001), number of patches reduced by 34.61% which is highly significant (p value - < 0.01).

DISCUSSION ON ACTION OF MEDICINE

As per Susruta samhita, the **causative dosha in Shukthika is PITTA** and hence treatment involves mitigating this pitta dosha. It is told in susruta samhita that the causative dosha should be eliminated. Both Gambhari, Amalaki & Haritaki Ashchyotana and Katphala Ashchyotana are having properties to eliminate pitta dosha. Both the medicines tried in the present research are pittahara and are considered best for the eyes.

Gambhari, Amalaki & Haritaki Ashchyotana– Gambhari, Amalaki & Haritaki Ashchyotana is used in the treatment of eye diseases. Gambhari is a drug which is pittahara, hrudya and



rasayana Amalaki is tridosahara, rasayana and chakshushya. Haritaki is a drug said in the treatment of eye diseases and is having properties like tridosahara and chakshushya.

Katphala Ashchyotana – Katphala is a drug which is Kaphavatahara, Ruchya, Dahahara, Mukharogashamaka, Dhatuvikarajit and used in treatment of eye diseases.

CONCLUSION

- Shukthika can be compared to Conjunctival Xerosis in which conjunctiva becomes dry, lustureless and non wettable. These patches almost always involve the inter-palpal area of the temporal quadrants and often nasal quadrants as well. Typical xerosis may be associated with conjunctival thickening, wrinkling and pigmentation accompanied by pain in eyes, burning sensation in eyes, diarrhoea, thirst and fever.
- Most common etiology of Shukthika is improper ahara and vihara causing chaya followed by prakopa and stana samsraya of pitta dosha in the eye. Etiological factors concerned with Conjunctival Xerosis are Vitamin A deficiency.
- In the present study Shukthika was found to be more prevalent in pre-school

age children, students, women in reproductive age and alcoholics.

- In general topical instillation of Gambhari, Amalaki & Haritaki eye drops was found to be more efficacious when compared to topical instillation of Katphala eye drops.
- Symptoms like pain in eyes, dryness and no. of patches responded more with Gambhari, Amalaki & Haritaki ashchyotana whereas symptoms like burning sensation and size of the patch responded more with Katphala aschyotana.
- Both Gambhari, Amalaki & Haritaki ashchyotana and Katphala ashchyotana are cost effective, safe and easy procedure which can be done by the patient himself in their own homes.
- Follow-up studies showed recurrence of symptoms in those who did not follow pathyapathya.



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