

A Clinical Evaluation of Triphala Ghrita Akshitarpana in the Management of Shushkaakshipaka

Dr.Vaarsha Sutar

BAMS M.S.(Shalakya -Netra)

(Assistent Proffesor)

Institute-Dr.S.P.Patil Ayurved Medical College & Research Care
korochi Ichalkaranji Kolhapur

Abstract

Ayurveda is a comprehensive science that emphasizes preservation of health along with prevention and management of diseases. It is systematically classified into eight specialized branches, among which Shalakya Tantra specifically deals with disorders of the organs located above the clavicle, including the eyes. The eye is one of the most delicate, valuable and continuously functioning sensory organs of the human body. Due to constant exposure to environmental factors and lifestyle related stressors, the eyes are highly susceptible to vitiation of doshas. Adequate tear secretion is essential for maintaining ocular health, lubrication and comfort. Tears are produced by the combined secretions of the lacrimal gland, goblet cells and meibomian glands, which together form the tear film. Reduction in tear production or disturbance in tear film composition results in dryness of the eyes, which is described in Ayurveda as Shushkaakshipaka. The condition is characterized by symptoms such as foreign body sensation, photophobia and ocular dryness, and is commonly assessed using the Schirmers test. Tarpana therapy is considered one of the most effective treatments for eye disorders in Ayurveda. In the present study, Triphala Ghrita Tarpana showed significant improvement in the symptoms of Shushkaakshipaka, and the results were found to be statistically significant.

Keywords: Ayurveda, supraclavicular region, Tarpana, Triphala Ghrita

Introduction

Ayurveda is one of the oldest medical sciences in the world and provides a holistic approach to health maintenance and disease management.¹ It aims not only at curing illness but also at preserving physical, mental and social well being. Ayurveda is divided into eight branches collectively known as Ashtanga Ayurveda.² Among these, Shalakya Tantra is a specialized branch that deals with the prevention and treatment of diseases affecting the organs of the head and neck region, particularly the eyes, ears, nose, throat and oral cavity.

The eye is an extremely important sensory organ that enables perception of the external world and plays a vital role in daily activities throughout life. Unlike other organs, the eyes function continuously without rest, making them vulnerable to fatigue and pathological changes. Therefore, special attention is required for the protection and maintenance of ocular health. Acharya Vagbhata has

emphasized that continuous efforts should be taken throughout life to preserve vision, as loss of eyesight renders day and night indistinguishable and makes life meaningless irrespective of material wealth.³

Ayurvedic classics provide a detailed description of the etiology, classification and management of eye diseases. According to these texts, vitiated doshas travel upward through the channels and blood vessels towards the head region and localize in the eyes, leading to various ocular disorders. These diseases are classified based on predominance of doshas, site of involvement, prognosis and therapeutic approaches.

Tears play a crucial role in maintaining ocular surface integrity.⁴ They provide constant lubrication, nourishment and protection to the cornea and conjunctiva, ensuring comfort and clear vision. In Ayurveda, dryness of the eyes due to reduced tear secretion is described as Shushkaakshipaka, which is categorized under Sarvagata Netra Roga by Acharya Sushruta.⁵ From a modern perspective, tears consist of three layers namely aqueous, mucous and lipid

layers, which are secreted by the lacrimal gland, goblet cells and meibomian glands respectively.⁶ Any imbalance or deficiency in these components leads to instability of the tear film and causes evaporative dry eye.⁷

Clinically, Shushkaakshipaka presents with symptoms such as foreign body sensation, intolerance to light, dryness and irritation of the eyes. Objective assessment can be done using the Schirmers test to evaluate tear secretion.⁸ Ayurveda advocates Tarpana therapy as an effective local treatment for eye disorders, wherein medicated ghee is retained over the eyes for a specified duration. Triphala Ghrita, due to its unctuous, cooling and nourishing properties, is particularly beneficial in relieving dryness and discomfort of the eyes.⁹ Its snehana action helps restore tear film stability and provides symptomatic relief in Shushkaakshipaka.

Aim

- To evaluate the therapeutic effect of Triphala Ghrita Tarpana in patients suffering from Shushkaakshipaka.

Objectives

- To assess the efficacy of Triphala Ghrita Tarpana in the management of Shushkaakshipaka.
- To observe and record any adverse effects associated with the use of Triphala Ghrita.
- To conduct a detailed conceptual and clinical study of Shushkaakshipaka.

Review of Literature:

■ Shushkaakshipaka

Reduction in tear formation and disturbance of the tear film leads to dryness of the eyes, which is termed as Shushkaakshipaka in Ayurveda. The Samprapti Ghataka of Shushkaakshipaka are described as follows¹⁰:

- Dosha:**
 - According to Sushruta, Vata predominance
 - According to Ashtanga Hridaya, Vata and Pitta predominance
- Dhatu: Rasa, Meda and Majja
- Dushya: Rakta and Ashru
- Srotas: Ashruvaha Srotas
- Sadhyasadyata: Sadhya

- Upashaya: Use of cold and warm therapeutic measures

The diagnosis of Shushkaakshipaka was made based on classical symptoms and confirmed by Schirmers test, correlating the condition with dry eye syndrome.

Triphala Ghrita

त्रिफलासिद्धं सर्पिर्नेत्रतर्पणमिष्यते ।

चक्षुष्यम् पित्तशमनं बल्यं दृष्टिप्रसादनम् ॥ (Su.U. 18/46)

Ingredients and Proportion

- Kalka of Triphala 1 part
- Ghrita 4 parts
- Drava dravya (water) 16 parts

Method of Preparation

Triphala Ghrita is prepared in accordance with the classical guidelines described in Sharangadhara Samhita for ghrita kalpana. The raw drugs used for the preparation of Triphala namely Haritaki, Bibhitaki and Amalaki are first cleaned thoroughly and shade dried. The drugs are then properly authenticated and standardized to ensure quality and purity. After drying, the drugs are coarsely powdered using a mixer grinder to obtain yavakuta churna and stored in moisture free containers to prevent contamination.

Kalka is prepared from the yavakuta churna of Triphala. One part of this kalka is taken and mixed with four parts of cow ghee. Sixteen parts of water are added as the drava dravya. The mixture is heated on mild flame with continuous stirring for a specific duration until complete evaporation of water occurs and classical signs of ghrita siddhi such as clear appearance, pleasant aroma and absence of moisture are observed. After attaining siddhi lakshanas, the ghrita is filtered and stored in airtight containers for therapeutic use.¹¹

Properties of Ingredients

Dravya	Latin Name	Rasa	Veer ya	Vipa ka	Gun a	Karma
Haritaki	Terminalia chebula	Kasha ya, Madhura	Ushna	Madhura	Laghu, Ruks ha	Tridosha g hna, Rasayana, Chakshushya
Bibhitaki	Terminalia bellirica	Kasha ya	Ushna	Madhura	Laghu, Ruks ha	Kapha Pitta Shamak, Chakshushya
Amalaki	Emblica officinalis	Amla Pradhana	Sheeta	Madhura	Laghu, Ruks	Rasayana, Tridosha Shamak,

	lis				ha	Chakshu hya
Go Ghrita	Cow ghee	Madh ura	Shee ta	Madh ura	Guru, Snigd ha	Tridosha Shamak, Chakshu hya, Balya

Therapeutic Significance

Triphala Ghrita possesses unctuous, cooling and rejuvenating properties which make it highly beneficial in ocular disorders caused by dryness and doshic imbalance. The combined action of Triphala and ghrita helps pacify aggravated Vata and Pitta doshas, nourish ocular tissues and improve tear film stability. Due to its chakshushya and rasayana properties, Triphala Ghrita is especially useful in Akshitarpana therapy for the management of Shushkaakshipaka.

Materials and Methods

Selection Criteria

Inclusion Criteria

1. Patients aged between 20 and 65 years were selected for the study.
2. Patients clinically diagnosed with Shushkaakshipaka were included.
3. Patients were selected irrespective of gender, marital status, religion, educational background or socioeconomic status.
4. Patients willing to participate in the study were included.
5. Patients presenting with one or more of the following symptoms were selected:
 - o Foreign body sensation
 - o Photophobia
 - o Dryness of eyes
 - o Positive Schirmers test

Exclusion Criteria

1. Patients with serious congenital ocular anomalies were excluded.
2. Patients suffering from severe systemic illnesses were excluded from the study.

Investigations

All patients included in the study underwent routine laboratory investigations to assess their general health status and to rule out systemic illnesses that could influence the outcome of the treatment. In addition to routine tests, selected specific investigations were carried out wherever clinically indicated.

A. Blood Investigations

- Complete blood count including erythrocyte sedimentation rate
- Random blood sugar level

B. Urine Examination

- Routine urine analysis
- Microscopic examination

C. Special Investigations

- Immunoglobulin G test for tuberculosis in suspected cases
- Mantoux test to exclude tubercular pathology
- Biopsy of the fistulous tract in clinically suspected cases of tubercular fistula
- Screening for human immunodeficiency virus to rule out acquired immunodeficiency syndrome

D. Radiological Investigations

- Chest X ray in posteroanterior view to exclude pulmonary tuberculosis or other thoracic pathology

Methods

A total of ten patients diagnosed with Shushkaakshipaka were selected for the present clinical study. All patients fulfilling the inclusion criteria and none of the exclusion criteria were enrolled after obtaining informed consent. Each patient received the same treatment protocol and was observed throughout the treatment period and follow up.

Treatment

The selected patients were treated with Triphala Ghrita Akshitarpana as the principal therapeutic intervention.

- Duration of treatment: Fifteen days
- Follow up period: Fifteen days after completion of treatment

Procedure of Akshitarpana

Before administering Akshitarpana, Purva Karma was performed for all patients. This included gentle local oleation around the orbital region using tila taila, followed by mild fomentation to facilitate better absorption of the medicated ghrita. After completion of Purva Karma, a circular boundary was carefully constructed around each eye using dough

prepared from black gram powder to prevent leakage of ghrita.

Triphala Ghrita was liquefied by placing it in a warm water bath to attain a suitable temperature. The patient was then asked to lie in a comfortable supine position and close the eyes gently. The liquefied Triphala Ghrita was slowly poured into each eye from the medial canthus up to the level of the eyelashes. The patient was instructed to gradually open and close the eyes to allow uniform spreading of ghrita over the ocular surface.

The ghrita was retained over the eyes for a duration of fifteen minutes daily. After completion of the stipulated time, the medicated ghrita was gently removed using a sterile dropper and cotton swabs. The dough boundary was then removed carefully. Mild fomentation was provided using cotton dipped in warm water to enhance comfort and remove residual ghrita.

Following the procedure, patients were advised to avoid exposure to bright light, wind and dust. The use of protective sunglasses was recommended during the treatment period to prevent ocular irritation.

Associated Lifestyle Modifications

Along with the therapeutic procedure, patients were counseled regarding simple lifestyle measures that help reduce dryness and irritation of the eyes. These included:

1. Conscious blinking while watching television or reading for prolonged periods
2. Regular use of dark protective goggles outdoors
3. Washing the eyes gently with clean water at regular intervals
4. Maintaining adequate hydration by consuming eight to ten glasses of water daily
5. Avoidance of frequent rubbing of the eyes, as it aggravates irritation
6. Adoption of regular eye care practices and maintaining proper ocular hygiene

Statistical Analysis

The collected data were statistically analyzed using the paired t test to evaluate the significance of the treatment effect before and after intervention. A p value of less than 0.05 was considered statistically significant.

Assessment Criteria

The assessment of patients was carried out based on both subjective and objective parameters. Each parameter was graded using a standardized scoring system to evaluate the severity of symptoms before and after treatment.

1. Foreign Body Sensation

- No sensation: 0
- Very mild occasional sensation: 1
- Moderate sensation causing discomfort: 2
- Severe continuous sensation: 3

2. Photophobia

- No sensitivity to light: 0
- Discomfort only on exposure to bright light: 1
- Intermittent photophobia during routine activities: 2
- Persistent photophobia even in normal light: 3

3. Dryness of Eye

- No dryness: 0
- Occasional dryness without discomfort: 1
- Intermittent dryness with irritation: 2
- Continuous dryness affecting daily activities: 3

4. Schirmers Test

- More than 10 mm wetting: 0
- Between 10 and 7.5 mm: 1
- Between 7.5 and 5 mm: 2
- Less than 5 mm: 3

❖ Observations and Results

The response to Triphala Ghrita Akshitarpana was carefully observed and documented in individual case records. Clinical data were collected before the initiation of treatment and after completion of the treatment period. Changes in symptoms and Schirmers test values were recorded to assess therapeutic efficacy.

The observations demonstrated a marked reduction in the severity of foreign body sensation, photophobia and ocular dryness in most patients following treatment. Improvement was also observed in Schirmers test values, indicating enhancement in tear secretion and tear film stability.

The response of treatment was observed and recorded on a case paper and data collection by clinical study.

Sr. No.	Assessment criteria		Foreign body sensation	Photophobia	Dryness of eye	Schirmer's test
1.	Case 1	BT	2	2	2	2
		AT	0	0	1	0
2.	Case 2	BT	2	3	2	2
		AT	1	2	1	0
3.	Case 3	BT	2	1	0	2
		AT	1	0	0	1
4.	Case 4	BT	0	1	2	2
		AT	0	0	1	1
5.	Case 5	BT	1	1	2	0
		AT	0	1	1	0
6.	Case 6	BT	0	2	3	2
		AT	0	0	1	1
7.	Case 7	BT	2	3	2	1
		AT	0	1	1	0
8.	Case 8	BT	2	2	3	3
		AT	1	1	2	1
9.	Case 9	BT	3	2	2	2
		AT	1	1	1	1
10.	Case 10	BT	0	2	0	2
		AT	0	0	0	0

(BT- Before Treatment, AT- After Treatment)

(BT- Before treatment, AT- After treatment, S.D- Standard Deviation, S.E.- Standard Error of mean)

Results:

Effect of *Triphala ghrita* on cardinal symptoms of *Shushkaakshipaka* is as follows

Cardinal Symptom	N	Mean BT	Mean AT	S.D.	S.E.	't'	P value	Result
Foreign body sensation	10	1.4	0.4	0.67	0.211	4.7393	P<0.001	H.S.
Photophobia	10	1.9	0.6	0.455	0.143	9.09	P<0.001	H.S.
Dryness of eye	10	1.8	0.9	0.322	0.101	8.91	P<0.001	H.S.
Schirmer's test	10	1.8	0.5	0.455	0.143	9.09	P<0.001	H.S.

Results

The overall effect of *Triphala Ghrita* *Akshitarpana* on the major clinical features of *Shushkaakshipaka* was statistically analyzed. The comparison of mean scores before and after treatment revealed significant improvement in all assessed parameters.

There was a substantial decrease in the mean score of foreign body sensation, reflecting effective relief from ocular irritation. Photophobia showed considerable improvement, suggesting better tolerance to light exposure. Dryness of the eyes also reduced markedly, indicating restoration of ocular lubrication. Schirmers test values improved significantly, confirming enhanced tear production following therapy.

Statistical analysis using the paired t test showed that the observed improvements were highly significant, with p values less than 0.001 for all cardinal symptoms. This indicates that the therapeutic

effect of Triphala Ghrita Akshitarpana was not due to chance and was clinically meaningful.

Discussion

Shushkaakshipaka is described in Ayurvedic literature as a Sarvagata Netra Roga and is primarily caused by the vitiation of Vata and Pitta doshas. The condition is characterized by reduced tear formation and increased dryness of the ocular surface, leading to symptoms such as foreign body sensation, photophobia and irritation. From a modern perspective, this condition closely resembles dry eye syndrome.

Schirmers test is widely used to evaluate tear secretion and serves as an objective tool to assess the severity of dryness. In Shushkaakshipaka, decreased tear secretion is attributed to the predominance of ruksha and ushna qualities of aggravated Vata and Pitta doshas.

Akshitarpana is a classical ocular therapeutic procedure recommended for diseases associated with dryness, weakness and degeneration of the eyes. The procedure provides direct nourishment to ocular tissues by retaining medicated ghrita over the eyes for a specific duration. Ghrita is considered superior among all unctuous substances due to its ability to pacify Vata and Pitta, penetrate subtle channels and nourish body tissues.

Triphala Ghrita possesses chakshushya, rasayana and tridosha pacifying properties. The madhura vipaka and sheeta veerya of Triphala Ghrita counteract the pathological dryness and heat associated with Shushkaakshipaka. Its snigdha and guru qualities help restore the moisture of the ocular surface and stabilize the tear film. Local administration through Akshitarpana ensures prolonged contact of the medicated ghrita with ocular tissues, thereby enhancing its therapeutic action.¹²

The statistically significant improvement observed in the present study supports the effectiveness of Triphala Ghrita Akshitarpana in reducing symptoms and improving tear secretion in patients with Shushkaakshipaka.¹³

Conclusion

Shushkaakshipaka is an ocular disorder predominantly caused by aggravation of Vata and Pitta doshas, resulting in dryness, irritation and reduced tear secretion. The condition presents with symptoms such as foreign body sensation,

photophobia, dryness of eyes and reduced Schirmers test values.

Akshitarpana is an effective local therapeutic procedure indicated for such conditions. Triphala Ghrita, owing to its unctuous, cooling and rejuvenating properties, plays a significant role in alleviating the doshic imbalance responsible for Shushkaakshipaka. The present study demonstrates a considerable reduction in symptom severity and improvement in tear secretion following treatment.

The statistical analysis showed a highly significant difference between pre treatment and post treatment values, with p values less than 0.001. Hence, Triphala Ghrita Akshitarpana can be considered a safe and effective Ayurvedic treatment modality for the management of Shushkaakshipaka.

Bibliography:

- 1) Dr. Kaviraj Atridev Gupta , *Ashtang Hrudayam Sutrasthan* by Chaukhambha Prakashan, Varanasi, 2016 edition, *Adhyaya 1, shlok* no. 5.
- 2) Trikamaji J. *Sushrut Samhita of Sutrasthana* with Nibandhsangraha commentary of Shri Dalhanacharya, Chaukhambha Sanskrit Prakashan , Varanasi, ,1994 edition, *Sutrasthana, shlok* no. 8.
- 3) 'Review of Siddha ghrita in the management of Netra rogas' by Vd. Gayatri Kashikar and Vd. Indira Ujagare, Rashtriya Shikshan Mandal's Ayurvediya Magazine, Issue no. 8, January 2020, ISSN- 0378-6463, page no. 25.
- 4) Khurana A. K., Khurana Aruj K, Khurana bhavana, comprehensive ophthalmology, chapter 16, Published by Jaypee brothers Medical Publishers (P) Ltd, sixth edition 2015, page no. 388.
- 5) Kaviraj Ambika Datt Shastri, *Sushrut Samhita* part 2, *Uttartantra adhyaya 6/4*, edition reprint 2016, published by Chaukhambha Sanskrit sansthan, Varanasi, Page no. 33.
- 6) Khurana A. K., Khurana Aruj K, Khurana bhavana, comprehensive ophthalmology, chapter 16, Published by Jaypee brothers Medical Publishers (P) Ltd, sixth edition 2015, page no. 388.

- 7) Bowling Brad, Kanski's Clinical ophthalmology, eighth edition 2016, page no. 120.
- 8) Dr. Supriya Muddalwar, Dr. Nilakshi Pradhan and Dr Pravin Bhat, Role of Shatavari Tarpan in Shushkaakshipaka – A case study, Satyanveshanam today, Volume VI Issue I, ISSN: 2395- 1826, page no. 19.
- 9) Khurana A. K., Khurana Aruj K, Khurana bhavana, comprehensive ophthalmology, chapter 16, Published by Jaypee brothers Medical Publishers (P) Ltd, sixth edition 2015, page no. 389.
- 10) Prof. Dr. Vidwansa Narayan J, Netraroga vidnyan, Shalakya 1, Chapter 7 Published by Vimal Vision Publication, Pune first edition, 27 Nov 2015, Page no. 196.
- 11) *Dravyaguna vigyan* (2nd Volume), Chaukhambha Bharati Academy, Varanasi, Priyavat Sharma, 4th edition, P: 562.
- 12) Kaviraj Ambika Datt Shastri, *Sushrut Samhita* part 2, *Uttartantra adhyaya* 6/4, edition reprint 2016, published by Chaukhambha Sanskrit sansthan, Varanasi, Page no. 53.
- 13) Kaviraj Ambika Datt Shastri, *Sushrut Samhita* part 2, *Uttartantra adhyaya* 6/4, edition reprint 2016, published by Chaukhambha Sanskrit sansthan, Varanasi, Page no. 53.

