CASE REPORT

Ayurvedic Management of *Shushkakshipaka* w.s.r. To Dry Eye Syndrome - A Single Case Study

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ARTICLE INFO

Article history: Received on: 04-02-2024 Accepted on: 15-03-2024 Published on: 31-03-2024

Key words: Ashru, Dry eye syndrome, Nasya, Shushkakshipaka, Tarpana

ABSTRACT

Eyes are one of the most powerful tools that anyone can have; hence, all efforts should be made to protect the eyes. In today's era, people depend more on machines like computers in all sectors of life. These cause some heat and radiation which certainly causes ill effects on the eyes. Tear (*Ashru*) secretion is an integral component of the ocular surface physiology; when compromised (quantitatively or qualitatively) leads to *shushkakshipaka* (dry eye syndrome) with various ocular discomfort symptoms and ultimately the patient may land in corneal blindness. Local, systemic, and environmental factors majorly affect its pathogenesis. *Vata* and *Pitta/Rakta* vitiation as per *Ayurvedic* viewpoint are the major contributing pathological factors in its manifestation. A 28-year-old female patient approached *Shalakya* OPD of SKGAC and H, Kurukshetra, complaining of irritation, foreign body sensation, eye fatigue, and pain in the periorbital region along with a feeling of dryness for 1 year. The patient had slight symptomatic relief but when medications were discontinued the condition used to reoccur, so she turned to Ayurvedic treatment for relief. In *Ayurveda* classics, specific treatment has been mentioned for *Shushkakshipaka* such as *Snehana* (~in-take of Ghee), *Tarpana* (~retention of ghee over eyes), *Nasya* (~Nasal medication), and *Pariseka* (~ocular irrigation). A patient of *shushkakshipaka* was treated with such treatment protocol, is presented as a case study in this article. Contrary to the available modern medical treatment *Ayurveda* propounds a systematic approach in the treatment of dry eye syndrome.

1. INTRODUCTION

Dry eye syndrome is one of the most common problems affecting the general population and can cause problems that range in severity from mildly irritating to debilitating. Dry eye syndrome is a general term that describes the state of the front of the eye, called the tear film. The lacrimal gland, goblet cells, and meibomian glands produce different secretions, which compositely form tear film on the eye. Tear secretion provides continuous moisture and lubrication on the ocular surface to maintain comfort, corneal, and conjunctival health and vision.^[1] Abnormalities of any of the components of the secretion (quantitatively or qualitatively) lead to instability of the tear film along with symptoms such as irritation, burning sensation, itching, tearing,

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Department of ShalakyaTantra, Institute for Ayurved Studies and Research, Kurukshetra, Haryana, India. Email: poonamdevi56208@gmail.com foreign body sensation, frequent blinking, redness, eye pain, eye fatigue, and blurring of vision. $^{[2]}$

Dry eye has no direct reference to *Ayurveda* classics. *Ayurveda* describes a similar condition called Shushkakshipaka under Sarvagata Netraroga (diseases affecting all parts of the eye).^[3] It is a *Vata-Pittaja/Raktaja Vyadhi* having symptoms such as *Gharsha* (foreign body sensation), *Vishushkatwama* (feeling of dryness in eyes), and *Kricchronmeela-Nimeelanama* (difficulty in opening the eyes).^[4]

The overall prevalence of dry eye in India, based on the Ocular Surface Disease Index is 29.25%.^[5] Tear substitutes are the only treatment modality in modern medical science. The duration of action of these tear substitutes is variable and are advised as per the need, only providing symptomatic relief.

As Vata-Pitta/Rakta is the basic pathology due to disturbed system biology which needs a holistic approach to deal with the problem, In *Ayurveda* classics, specific treatment has been mentioned for *Shushkakshipaka*

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such as *Snehana* (~in-take of Ghee), *Tarpana* (~retention of ghee over eyes), *Nasya* (~Nasal medication), and *Pariseka* (~ocular irrigation).^[6]

In this study, a case of dry eye is treated with *Nasya* with *Ksheerabala* 101 Aavarthi Taila, Tarpana with Jeevantyadi Ghrita,^[7] Pariseka with Saindhavmisrita Ksheer^[7] along with Oral medication Saptamrutprash, and Capsule with Uttama Rasayana and Snigdhaakshi Eye drop.

2. CASE REPORT

A 28-year-old female patient approached Shalakya OPD of SKGAC and H, Kurukshetra, complaining of irritation, foreign body sensation, eye fatigue, and pain in the periorbital region along with a feeling of dryness for 1 year. She was regularly taking medicines for a period of 1 year which included artificial tear supplements, and lubricating eye ointment. The patient had slight symptomatic relief but when medications were discontinued the condition used to reoccur, so she turned to *Ayurvedic* treatment for relief.

2.1. History

Not significant.

2.2. Family History

Not relevant.

2.3. Dashvidh Priksha

- 1. Prakriti-VaatPittaja
- 2. Vikriti-VaatPitta/rakta
- 3. Sara-Mansa
- 4. Samhanana-Madhyam
- 5. Pramana- Madhyam
- 6. Satmaya-Madhyam
- 7. Satva-Madhyam
- 8. Ahara Shakti-Madhyam
- 9. Vyaam Shakti-Madhyam
- 10. Vaya-Yuvavastha

2.4. Ashtavidha Pariksha

- 1. Nadi-Pittaja
- 2. *Mootra*-Pale yellow
- 3. Mala-Normal in color and consistency
- 4. Jihwa-Pink/Uncoated
- 5. Shabda-Clear, Sharp
- 6. Sparsha-Dry
- 7. Drika-Dry/Lustureless
- 8. Akriti-Madhyam (Weight-62 kg, Height-5'3").

2.5. Clinical Findings

- Temp.-Afebrile.
- Pulse rate-78/min
- Respiratory Rate-15/min
- Blood Pressure-110/80 mmHg
- Systemic examination was within normal limits.

2.5.1. Ocular examination

On torch light examination, the cornea was clear in both eyes, the anterior chamber was normal in both eyes; pupils were of normal size and normal in reaction.

On slit lamp examination, both eyes show mild nasal interpalpebral conjunctival staining with fluorescein.

2.5.2. Visual examination

In both eyes, distant visual acuity was 6/18. The best corrected visual acuity in both eyes was 6/6 with $(-1.50/-0.75 \text{ at } 150^\circ)$.

IOP in both eyes was 16 mm Hg.

2.6. Diagnostic Assessment

Tear Film Tests--Schirmer- Strip test, Tear film break up time, and Fluorescein staining was done before treatment to confirm the diagnosis of Dry Eye.^[1]

Grading of Dry Eye-Based on the severity of signs and tear film tests recommended by Dry Eye Workshop (DEWS) Report (2007).

- 1. Saptamrutprash-Yashtimadhu, Haritaki, Bibhitaki, Amalaki, Loha Bhasma, Saindhav, Pippali, Ela, Twak, Khandasharkara, Ghee, Honey.
- Uttam Rasayana-Triphala, Rasanjan, Guduchi, Yasthi, Yashad, Kasis, Abhrak, Makshik, Kantaloha, Rajat Bhasma, Darvi, Satavari.
- 3. *Snigdhaakshi* eye drop---*Yasthi, Mridvika, Durva,* Cow milk, Cow ghee.

3. RESULTS

There was an improvement in both signs and symptoms. Tear Film Tests-Schirmer Strip test, Tear film break-up time, and Fluorescein staining showed marked improvement. No adverse or unanticipated events were reported during the study.

4. DISCUSSION

According to *Ayurveda*, dry eye is not merely an ocular surface disorder; rather this is one of manifestation of the deranged metabolism/ depreciation of body tissues. Ashru (tear film) is the byproduct of Rasa, Meda, and Majja dhatus^[8] and without normalizing/altering them we cannot treat dry eye syndrome optimally.

The line of management in Shushkakshipaka (Dry eye) includes Nasya, Tarpana, Seka, and Anjana. Medicines for Nasya, Tarpana, and Seka were selected as per the classical reference.^[9] Nasya was done with Ksheerabala Taila as it is indicated in Shushkakshipaka. Ksheerabala Taila has Tridoshahara properties. Nasa is the gateway to Shira, so the drug administered through the nostrils reaches Shringataka (A Sira Marma by Nasa Srota), Spreads in the Murdha (brain) along with Marma of Netra (eye) scratches the morbid Doshas in the supra clavicular region and expels them from Uttamanga. Hence, the effect of the drug is Tridoshahara; hence, it breaks the pathology of Shushkakshipaka. Tarpana was done with Jeevantyadi Ghrita as it is indicated in Shushkakshipaka. Considering the Dosha karma, Jeevantyadi Ghrita appears to be predominantly Vata-Pitta Shamaka by its Snigdha Guna and Sheeta Virya. It also gives lubrication to the ocular surface and helps to check the epithelial damage of the conjunctiva and cornea. Netra seka was done with Saindhavmisrita Ksheer (Tridosha Shamaka) to modify the local tissue pathology by its attributes and mobilize the toxins that are eliminated from the affected tissue. Along with this oral medication also pacifies the Doshas (Vata-Pitta) involved in the Shushkakshipaka (Dry Eye). Hence, it will break the pathology of Shushkakshipaka.

5. CONCLUSION

Thus, it can be concluded that the *Ayurvedic* approach is helpful in the treatment of dry eye. *Nasya, Tarpana,* and *Pariseka* along with oral medication showed significant results in signs and symptoms of dry

eye. This study emphasizes the importance of the classical approach of *Ayurveda* in dry eye syndrome.

6. ACKNOWLEDGMENTS

None.

7. AUTHORS' CONTRIBUTIONS

All the authors contributed equally in the design and execution of the article

8. FUNDING

Nil.

9. ETHICAL APPROVALS

This study does not require ethical clearance as it is a case report.

10. CONFLICTS OF INTEREST

Nil.

11. DATA AVAIBALITY

This is an original manuscript, and all data are available for only review purposes from the principal investigators.

12. PUBLISHERS NOTE

This journal remains neutral with regard to jurisdictional claims in published institutional affiliations.

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How to cite this article:

Devi P, Vinaik A, Tanwar M. Ayurvedic Management of *Shushkakshipaka* w.s.r. To Dry Eye Syndrome - A Single Case Study. IRJAY. [online] 2024;7(3);14-17. **Available from:** https://irjay.com **DOI link-**https://doi.org/10.48165/IRJAY.2024.70303

Level 3 (Severe dry eye)					
Name of test	Right eye	Left eye			
Schirmer-strip test	5 Mm	6 Mm			
Tear film break-up time	4 Sec	5 Sec			
Fluorescein staining	Positive	Positive			

Treatment adopted							
Treatment given	Drug Name	Duration	Dosage				
Nasya (2 Sitting)	Ksheerabala Taila	7 Days Each	6 Drops Each Nostril				
Tarpana (2 Sitting)	Jeevantyadi Ghrita	7 days Each	30 Gm Each day				
Pariseka (2 Sitting)	Saindhavmisrita Ksheer	7 days Each	200ml Each day				
Oral Medication	Saptamrutprash	30 Days	10 Gm				
	Uttam Rasayana		500 mg				
Eye Drops	Snigdhaakshi	30 Days	1-1 Drop tds				

Improvement in tear film test						
Diagnostic criteria	Right eye		Left eye			
	Before treatment	After treatment	Before treatment	After treatment		
Schirmer-strip test	5 mm	13 mm	6 mm	15 mm		
Tear film break-up time	4 s	10 s	5 s	12 s		
Fluorescein staining	Positive	Negative	Positive	Negative		