

# Severe Dry Eye Disease Managed with Ayurvedic Protocol: A Clinical Narrative

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## ABSTRACT

**INTRODUCTION:** Dry eye is a multifactorial disease of the ocular surface. The prevalence of dry eye disease (DED) in India is higher than the global average, ranging from 18.4% to 54.3%. The prevalence of DED in India has been increasing over time, from 29.25% in 2010 to 46.71% in 2016 and 54.3% in the current period. In Ayurveda, On the basis of signs and symptoms it can be correlated with Shushkaakshipaka. **MATERIALS AND METHODS :** A 50yrs old female patient presented with complaints of dryness in both eyes, foreign body and burning sensation in both eyes RE> LE since 3 months. Through examinations she was diagnosed with severe dryness of eyes. She underwent Ayurvedic management like Kostasodana with Erendabrista hareetaki, Seka with Yastimadhu and Lodhra Kashaya, Samana Snehapana with Mahatraiphala Ghrita, Nasya with Anutaila and Tarpana with Mahatraiphala Ghrita . **OBSERVATION RESULT:** After successful completion of treatment, the patient had marked improvement in dryness, foreign body sensation, burning sensation of eyes. Schirmer'1 test and tear film breakup time in both eyes showed improvement than before. **DISCUSSION AND CONCLUSION:** The Ayurveda protocol encompassing Vatapitta Shamana line of treatment was found to be effective in severe dry eye disease.

**Keywords:** Shushkaakshipaka, Dry Eye Disease, Seka, Nasya, Tarpana.

## INTRODUCTION:

According to TFOS DEWS II report, published in July 2017, the condition dry eye is defined as “Dry eye is a multifactorial disease of the ocular surface characterized by a loss of homeostasis of the tear film, and accompanied by ocular symptoms, in which tear film instability and hyper osmolality, ocular surface inflammation and damage, and neurosensory abnormalities play etiological roles.<sup>[1]</sup>” Hyper osmolality causes release of chemical substances like inflammatory mediators and proteases which causes histological changes like loss of goblet cells and epithelial cells. The condition gradually progresses to punctuate epitheliopathy and ultimately ocular surface damage. In Ayurveda, Shushkaakshipaka isn mentioned as Sarvagata Netraroga among all the 76 Netrarogas by Acharya Sushruta and mentioned it as Vata predominant Vyadhi characterized by Kunita Vartma (Narrowing of palpebral aperture), Daruna Ruksha Vartma (Hardness and dryness at lid margin and cilia), Aviladarshana (Blurring of vision), Sudarunam Yat Pratibodhane (Difficulty to open the eyes/ Photophobia)<sup>[2]</sup>. According to Acharya Vagbhata, it is a Vata-Pitta predominant Vyadhi and has additional features such as Gharsha (foreign body sensation), Toda (pricking pain), Bheda (Tearing pain), Upadeha (Discharge/stickiness of lids),

Rukshatwa, Darunatwa of Vartma and Akshi (hardness and roughness of the eyelids and eye), Sheetecha (desire for cold), Shula (Pain) and Paka (Inflammation)<sup>[3]</sup>. Hence Vata-Pitta hara treatment was planned.

**PATIENT INFORMATION:**

A 50-year-old female patient was visited the outpatient department I.T.R.A, Jamnagar in January 2025, complaining of dryness, foreign body and Burning sensation, difficulty to open and close bilateral eyes from 3months. No co morbidities, No history of diseases like Sjogren’s syndrome nor Lagophthalmus. No history of any surgery. The patients Nadi, Mutra, Jihwa, Shabda were Sadarana. Mala was Badha. Sparsa was Anushnasheeta, Drik was Spasta, Akriithi was Sthoulya. The patient was of Kapha Vata Prakriithi. The Sara, Samhanana, Pramana, Satmya, Aharasakti, Vayayama sakti, Vaya, Satva were of Madhyama in status

**CLINICAL FINDINGS:**

Unaided Distant Visual Acuity (DVA) was 6/9 in OD (oculus Dexter-the right eye) and 6/9 in OS (oculus sinister-the left eye), aided DVA was 6/6 in OU with spectacle correction of +0.75Dsph. Near visual acuity (NVA) was N 18 in OU without aids and N6 with aided with +2.00Dsph. On Slit lamp examination, Conjunctiva seems lustreless. Mild congestion was seen in the lower palpebral and Bulbar conjunctiva. Pupillary reaction was normal and pseudophakic lens OU. Intra ocular pressure (IOP) within normal limit OU. Posterior segment examination using direct ophthalmoscopy was normal.

**DIAGNOSTIC ASSESSMENT:**

Schirmer 1 test, Tear film break up time (TBUT), Fluorescein staining and Rose Bengal test was done and diagnosed as severe Dry eye in OU.

**Table 1: Diagnostic tests done for Dry eye evaluation**

Diagnostic tests	OD	OS
Schirmer 1 test [Fig 1]	2 mm	3 mm
Tear film break up time (TBUT)	2 sec [Fig 2]	3 sec [Fig 3]
Fluorescein staining	Positive Grade 4	Positive Grade 4
Rose Bengal test	Conjunctival and corneal staining positive Grade 2 [Fig 4]	Conjunctival and corneal staining positive Grade 2 [Fig 5]

**TIME LINE:**

The patient visited OPD on January 5<sup>th</sup> 2025, took one course of IPD course 25 days and continued OPD medication for 1 month, follow up was taken on March 1<sup>st</sup> 2025

**THERAPEUTIC INTERVENTION**

The treatment is proceeded with Kostasodhana, Seka, Samana Snehapana, Nasya and Tarpana.

**Table 2: Treatment intervention done**

Date	Medicine	Duration	Dose and Frequency	Summary
Jan 5 <sup>th</sup>	Kostasodana with Erendabrista hareetaki	3 days	10g HS with half glass lukewarm water.	Complaining of dryness, foreign body and Burning sensation, difficulty to open and close eyes. Complaints of constipation.
Jan 8 <sup>th</sup> to 14 <sup>th</sup>	Seka with Yasti Lodra kashaya	7 days	2 times a day 15 min	
	Mahatraiphala Ghrita	7 days	5g OD	
Jan 15 <sup>th</sup> to 21 <sup>st</sup>	Nasya with Anutaila	7 days	6 drops in each Nostrils, evening	
Jan 22 <sup>nd</sup> to 28 <sup>th</sup>	Tarpana with Mahatraiphala Ghrita	7 days	15 min, evening time.	Patient had moderate relief in the presenting complaints.
Jan 29 <sup>th</sup>	Ropana Putapaka	1 day	5 min, evening time	

Seka, Samana Snehapana and Pratimarsha Nasya was continued for I month and follow up was taken on March 1<sup>st</sup> 2025.

**RESULTS:**

There was improvement in both signs and symptoms. Schirmer’s 1test, Tear film breakup time, Fluorescein staining and Rose Bengal staining showed marked improvement. No adverse events occurred during treatment.

**Table 3: Diagnostic tests repeated on Follow up day (1<sup>st</sup> March 2025)**

Diagnostic criteria	OD		OS	
	Before treatment	After treatment	Before treatment	After treatment
Schirmer 1 test	2mm	6mm	3mm	6mm

Tear film break up time	2sec	4sec [Fig 6]	3sec	5sec [Fig 7]
Fluorescein staining	Positive in all quadrants	Diffuse staining	Positive in all quadrants	Diffuse staining
Rose Bengal test	Conjunctival and corneal staining positive (Grade 2)	Staining reduced- (Grade1) [Fig 8]	Conjunctival and corneal staining positive (Grade 2)	Staining reduced- (Grade1) [Fig 9]

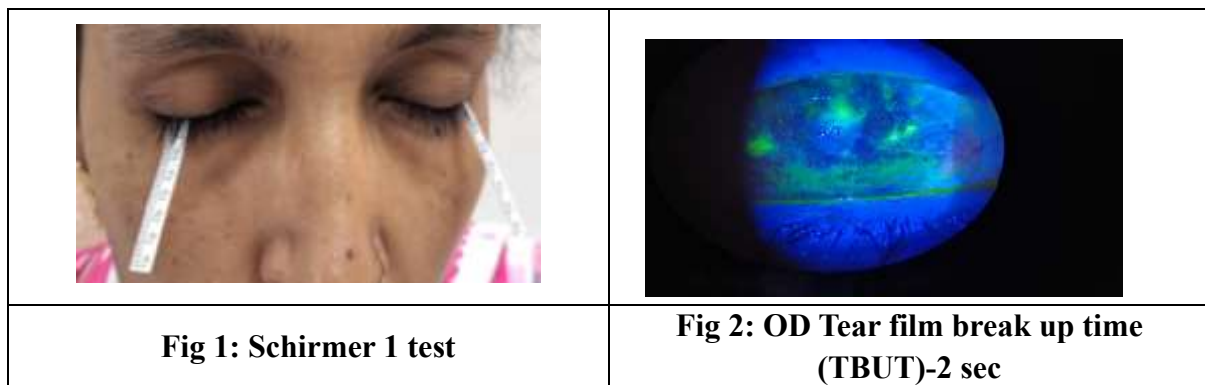
**DISCUSSION:**

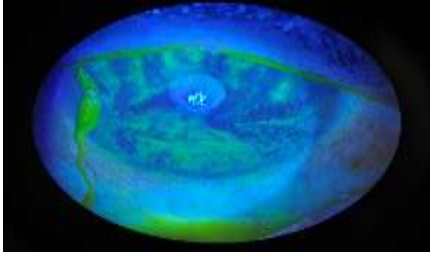

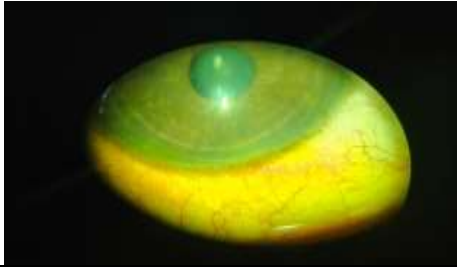
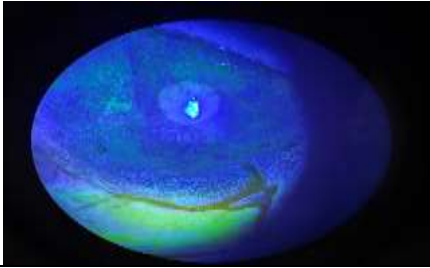



As the patient had the symptoms like dryness, foreign body and burning sensation, the treatment was planned with Vata Pittahara management. As Snehana, Nasya, Seka, Tarpana is mentioned in the treatment line of Shushkaakshipaka. Initially Erendabristahareetaki was given for Kostasodhana, aiming for vatanulomana with properly considering the Prakrithi of patient. Shamana Sneha Pana and Tarpana were done with Mahatriphaladi Ghrita<sup>[4]</sup>. It helps to decrease Rukshata of Vata and Ushnata of Pitta through Snigda and Sheeta Guna respectively. Primarily, it is Vata-Pitta Shamaka and Pacifies vitiated Dosha at a systemic level. It nourishes the ocular tissue locally by improving the Sneha properties like lustre and moisture content of eyes and repair the tissue damage occurred due to excessive evaporation. Anutaila Nasya<sup>[5]</sup> mentioned in the management of Shushkaakshipaka and has the property of Vatapittahara, Snehana and Bruhmana. The Sneha on reaching the Srotas performs Snehana and Bruhmana on the upper part of the Body. Acharya Vagbhata explained that Nasya Dravya, after coming in contact with the Shleshmika kala of Nasa, reaches the Shringataka Marma and spreads in the Murdha. By its potency, it then scratches the morbid Urdhwa Jatrugata Doshas and expels them from Uttamanga and it also provides strength to all sense organs.<sup>[6]</sup> Seka is done with Yasti Lodhra Kashaya helps to pacify the Vata-Pitta and helps in Ropana.<sup>[7]</sup> All of these helps to break the pathology of the Shushkaakshipaka.

**CONCLUSION:**

Dry eye disease was managed by Ayurveda protocol. By observing the Patient, the given protocol was useful in reducing the signs and symptoms like Dryness, Foreign body sensation and difficulty in open and close the eye. Hence can be concluded that Dry eye disease ie. Shushkaakshipaka, a single case study proves the effectiveness in the Ayurveda treatment protocol

Figures :



	
<p><b>Fig 3: OS Tear film break up time (TBUT)-3 sec</b></p>	<p><b>Fig 4: OD- Conjunctival and corneal Rose bengal staining</b></p>
	
<p><b>Fig 5: OS- Conjunctival and corneal staining positive (Grade 2)</b></p>	<p><b>Fig 6: OD Tear film break up time (TBUT) improved to 4sec.</b></p>
	
<p><b>Fig 7: OS Tear film break up time (TBUT) improved to 5sec.</b></p>	<p><b>Fig 8: OD Conjunctival and corneal Rose Bengal staining positive reduced to (Grade 1)</b></p>
	<p><b>Fig 9: OS Conjunctival and corneal Rose Bengal staining positive reduced to (Grade 1)</b></p>

**Patient’s perspective:**

The patient expressed gratitude towards cost effective and less duration taken for the treatment.

**Declaration of patients consent:**

The authors have obtained the appropriate consent/assent from the patient and legal guardian for the use of images for clinical information. Patient’s information will remain confidential and will not be disclosed.

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