



Case Study

## AYURVEDIC MANAGEMENT OF SEVERE DRY EYE SYNDROME & COMPLICATIONS: A CASE STUDY

Preeti Pahwa<sup>1\*</sup>, Ashu Vinaik<sup>2</sup>, Priya Patel<sup>3</sup>, Jasmine Kaur<sup>3</sup>

<sup>1</sup>Associate Professor, <sup>3</sup>PG Scholars, Dept. of Shalakya, Patanjali Ayurveda Mahavidyalaya, Haridwar, Uttarakhand.

<sup>2</sup>Professor, Shri Krishna Ayush University Kurukshetra, Haryana.

### Article info

#### Article History:

Received: 25-08-2021

Revised: 15-09-2021

Accepted: 20-10-2021

Published: 15-11-2021

#### KEYWORDS:

Dry Eye Syndrome, *Shushkakshipaka*, *Nasya*, Keratoconjunctivitis Sicca.

### ABSTRACT

Dry eye syndrome (DES) is a common condition that causes pain and can lead to vision problems. Modern living has given rise to a massive increase in the incidence of vision threatening dry eye disease, around 10-30% of population living in industrialized countries suffer from dry eye syndrome (DES). According to Second International Dry Eye Workshop (DEWS II) in 2017 offered dry eye as it is a multifactorial ocular surface disorder defined by a loss of tear film homeostasis and ocular symptoms, in which tear film instability and hyperosmolarity, as well as ocular surface inflammation and injury, play a part in the etiology. If it is not controlled with in time it can lead to corneal blindness. Ayurveda proposes a comprehensive systemic & topical strategy in the treatment of dry eye syndrome, in contrast to the available modern medical treatment. In this publication, a case study of a *Shushkakshipaka* with many complications who was treated with dynamic Ayurvedic treatments & after continuous efforts patient got very significant results is being discussed here.

### INTRODUCTION

**MYTH-***Dry eye syndrome is not a serious disease.*

**FACT-***If dry eye syndrome is not treated properly, it can lead to severe eye problems, including blindness.*<sup>[1]</sup>

Dry eye syndrome, known medically as keratoconjunctivitis sicca, is an umbrella term for a condition of severely dry eyes caused by a lack of proper tear production and distribution. Basically, dry eye syndrome manifest in one or two ways: Aqueous tear deficient dry eye or evaporating dry eyes. In general terms, dry eye is caused by disturbances of the lacrimal function unit, an integrated system comprising the lacrimal gland, ocular surface and lids and the sensory and motor nerves that connect them. Dry eye affects between 5-34 percent of people worldwide, and the prevalence of the condition rises considerably with age. Dry eyes make it difficult to see well, especially when reading, driving, and using computers and phones. <sup>[2,3]</sup>

Other's symptoms of dry eye include burning sensation, itching, tearing foreign body sensation, frequent blinking, redness, eye pain, eye fatigue, blurring of vision. No remedial measure for the prevention and cure of this pathology prevails in the domain of modern medicine except using ocular surface lubricants, computer glasses. Though lubricating drops can reduce the effects of Dry Eye, but its preservatives are harmful to eye. Dry Eye has no direct & appropriate reference in *Ayurveda* ancient texts of *Shalakya*. However similar clinical manifestation can be observed in a disease called as *Shushkakshipaka*. It is considered as *Vata-pittaja Vyadhi* having symptoms like *Gharsha* (foreign body sensation), *Vishushkatwama* (dryness in eyes) and *Kricchronmeela-Nimeelanama* (difficulty in opening & closing the eyes).<sup>[4]</sup>

In Ayurveda classic specific treatment has been mentioned for *Shushkakshipaka* such as *Snehana*, *Nasyama*, *Pariseka*, *Tarpana*, *Aschotana*, *Vidalaka* etc.<sup>[5]</sup>

### Case Report

A conscious, well oriented female patient, aged 24 years, came to OPD of Shalakya Tantra, Patanjali Ayurveda College on 19-01-2019 with chief complaints of redness in both eyes, mucus discharge, burning sensation, photophobia & pain in both eyes with crust

#### Access this article online

Quick Response Code



<https://doi.org/10.47070/ayushdhara.v8i5.815>

Published by Mahadev Publications (Regd.)  
publication licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0)

formation around both upper & lower eye lids, RE > LE since February 2017. Eye opening was very difficult for her.

**History of Present Illness:** Before 2016 she was fine enough. Then she developed severe bacterial conjunctivitis (mentioned in old reports) 2-3 times, every time taken steroids & antibiotics but she had recurrence of acute episodes in year 2016 & 2017. Punctal cautery was being done in February 2018. For 5 months she was better, but again her foreign body sensation, redness, dryness, ocular discomfort and photophobia came back. She was diagnosed as a case

of severe Dry Eye Syndrome with upper & lower lid crust lesions.

**Treatment history:**

She was using Tobramycin + Moxifloxacin eye drop, Naphazoline + Chlorpheniramine + phenylephrine eye drop, Chloramphenicol +dexamethasone+polymyxin B eye ointment, oral Cefotaxime, Serratiopeptidase, Prednisolone & antioxidants.

**History of past illness:** No past history of any systemic diseases like Asthma, Hypertension or Diabetes. No Surgical history.

**Family History:** Nothing Significant.

**Ocular Examination:**

Ocular structures	Right Eye	Left Eye
Adnexa	Multiple crusts on eyelids with mucus discharge	Crust on eye lids with mucus discharge
Conjunctiva	Congested	Congested
Sclera	No abnormalities	No abnormalities
Cornea	No abnormalities	No abnormalities
Anterior chamber	Normal depth	Normal depth
Pupil	Round, regular, reactive to light	Round, regular, reactive to light
Lens	Greyish black	Greyish black

**Visual examination:** Distant visual acuity in RE was 6/24 and LE 6/18. Best corrected visual acuity in both eyes was 6/6.

**Diagnostic assessment:** Schirmer-1 test, Tear film break up time was done before treatment to confirm the diagnosis of Dry eye.

**Assessment before treatment**

Name of test	Right eye	Left eye
Schirmer-1 test	0	4
TBUT	3 sec	4 sec

**Treatment schedule:** Indoor treatments were planned as per the acute condition of the patient & patient got significant improvement in total 5 sittings of procedures, which were decided as per the ocular condition.

**Shodhan treatment given in first visit January 2019**

Treatment given	Drug name	Duration
Deepana Pachana	Chitrakadi Vati, Ajmodadi churn	3 days
Snehapana in increasing amount	Patoladi ghrita	4 days
Virechana	Trivrit lehayam anupana drakshadi kwath	1 day (15 vegas)

**FOLLOWED BY: Therapeutic regimen followed in multiple visits**

Treatment Procedure	1 <sup>st</sup> visit Jan 2019	2 <sup>nd</sup> visit April 2019	3 <sup>rd</sup> visit August 2019	4 <sup>th</sup> visit Dec2019	5 <sup>th</sup> visit Feb 2021	Days
Nasya	Madhuyasthi tail	Ksheerbala tail	Ksheerbala tail	Anu tail	Anu tail	7,7,5,5,3
Anjana	-	-	Keshanjana 1 drop morning	Keshanjana 1 drop bd	Keshanjana <sup>[6]</sup> 1 drop bd	5,5
Seka	Patola, Priyangu, Lodhra, Erandmool, Mulethi, Musta kwatha	Patola, Priyangu, Lodhra, Erandmool, Mulethi, Musta ksheerpaka	Patola, Priyangu, Lodhra, Erandmool, Mulethi, Musta ksheerpaka	Patola, Erandmool, Mulethi, Musta kwath bd	Patola, Erandmool, Mulethi, Musta kwath bd	7,7,5,5

<i>Vidalaka</i>	<i>Mulethi, Erandmool, Vacha, Manjistha</i> (fine powder paste with rose water)	-	-	-	-	3
<i>Kizhiswedana</i>		-	<i>Tulsi &amp; Fresh Haridra kalka</i>	<i>Manjishta + Daruharidra</i>	<i>Manjistha + Daruharidra</i>	5,5,6
<i>Aschotana</i>	<i>Mulethi kwath</i> 10 drops each eye	<i>Mulethi kwath</i> 10 drops each eye	<i>Durvadi ghrith</i> 10 drops each eye	-	-	3,3,5
<i>Shirodhara</i>	<i>Khseerbala tail + Madhuyasthi tail</i>	<i>Khseerbala tail + Madhuyasthi tail</i>	<i>Khseerbala tail</i>	<i>Ksheerbala tail</i>	-	5,5,5,5
<i>Tarpana</i>	<i>Durvadi ghrith</i>	<i>Patoladi ghrith + Durvadi ghrith</i>	<i>Durvadi ghrith</i>	<i>Patoladi ghrith</i>	<i>Patoladi ghrith</i>	5,7,7,5,3
<i>Matra vasti</i>	-	-	-	<i>Ksheerbala tail 90 ml</i>	-	5

### Oral & Topical Medications

1. *Aarogyavardhini vati* 500mg bd
2. *Kaishore guggulu* 500mg bd
3. *Avipattikar choornam* 10 gm at bed time for *Nitya virechana* for 15 days after that 4gm empty stomach
4. *Patoladi ghrith + Jeevantyadi ghrith* 10 ml twice a day
5. *Dashmool + Mulethi kwath* 40 ml twice a day
6. *Patoladi ghrith + Durvadi ghrith* 4 drops in each eye at bed time
7. *Keshanjana* 1 drop Morning

All these medications were given for 1 year with rest period of 1 month after every 3 months & after 1 year only oral *Ghrith* medicine and topical medicine is continued.

### Results:

This study showed marked improvement in signs and symptoms of the disease as shown in the following tables. There were no major side effects of the treatments, only in first sitting after *Vidalaka* patient complained of mild itching, so that treatment we stopped. Further there is no reoccurrence of signs & symptoms till date. After every visit patient was recovering slowly.

#### Assessment after 1<sup>st</sup> Visit

	Right Eye		Left Eye	
	BT	AT	BT	AT
Schirmer-1 Test	0mm	5mm	4mm	8mm
TBUT	3 sec	5 sec	4 sec	7 sec

#### Assessment after 2<sup>nd</sup> visit

	Right Eye		Left Eye	
	BT	AT	BT	AT
Schirmer-1 Test	2 mm	6 mm	7 mm	9 mm
TBUT	3 sec	5 sec	5 sec	6 sec

#### Assessment after 3<sup>rd</sup> visit

	Right Eye		Left Eye	
	BT	AT	BT	AT
Schirmer-1 Test	10mm	12mm	8mm	13mm
TBUT	6 sec	7 sec	6 sec	8 sec

#### Assessment after 4<sup>th</sup> visit

	Right Eye		Left Eye	
	BT	AT	BT	AT
Schirmer-1 Test	12mm	15mm	10mm	15mm
TBUT	8 sec	8 sec	8 sec	9 sec

### Follow-up visit in September 2020 (Indoor treatments were not given due to COVID Pandemic)

#### Assessment:

Schirmer -1 test – Right eye – 13 mm Left Eye- 17 mm

TBUT was not done due to some technical issues with slit lamp.  
Patient was quite comfortable.

**Assessment after 5<sup>th</sup> visit**

	Right Eye		Left Eye	
	BT	AT	BT	AT
Schirmer-1 Test	12mm	14mm	16mm	22mm
TBUT	9 sec	10 sec	10 sec	12 sec

**Assessment in every visit**

Assessment	1 <sup>st</sup> visit				2 <sup>nd</sup> visit				3 <sup>rd</sup> visit				4 <sup>th</sup> visit				5 <sup>th</sup> visit			
	RE		LE		RE		LE		RE		LE		RE		LE		RE		LE	
	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT
Schirmer test (mm)	0	5	4	8	2	6	7	9	10	12	8	13	12	15	10	15	12	14	16	22
TBUT (sec)	3	5	4	7	3	5	5	6	6	7	6	8	8	8	9	9	9	10	10	12
IOP (mm of Hg)	17	13	17	15	14	13	15	15	13	14	12	13	15	16	14	13	12	13	14	16
Vision unaided	6/24	6/24	6/18	6/18	6/24p	6/18	6/24	6/18	6/24p	6/24	6/18p	6/12p	6/18p	6/18p	6/12p	6/12	6/24	6/18	6/12p	6/12
Aided Vision	6/6p	6/6p	6/6	6/6	6/6p	6/6	6/6	6/6	6/6	6/6	6/6	6/6	6/6	6/6	6/6	6/6	6/6	6/6	6/6	6/6

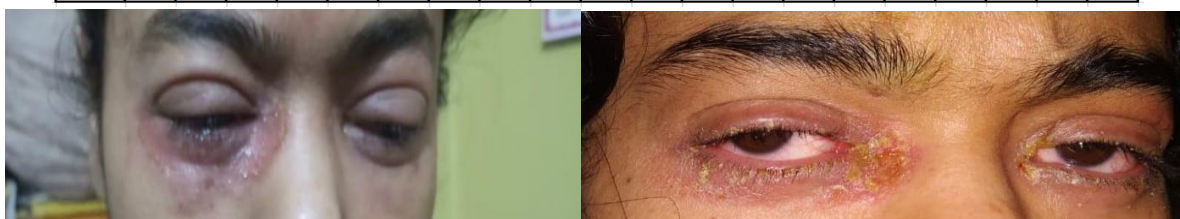


Figure-1 and Figure-2 At the time of first visit (January 2019)



Figure-3 After 2<sup>nd</sup> visit of treatment (April 2019)

Figure-4 After 3<sup>rd</sup> visit of treatment (August 2019)

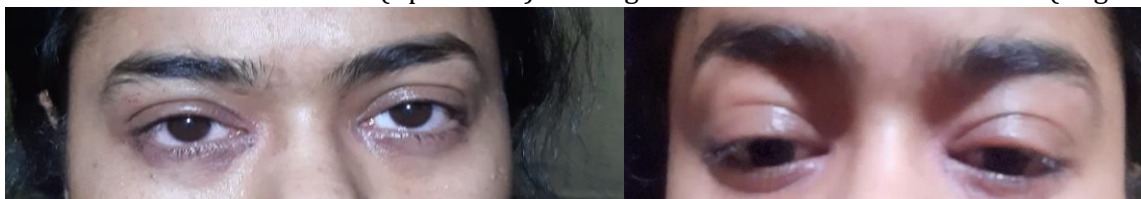


Figure-5: After 4<sup>th</sup> visit of treatment (December 2019)

Figure-6: After 5<sup>th</sup> visit of treatment (February 2021)

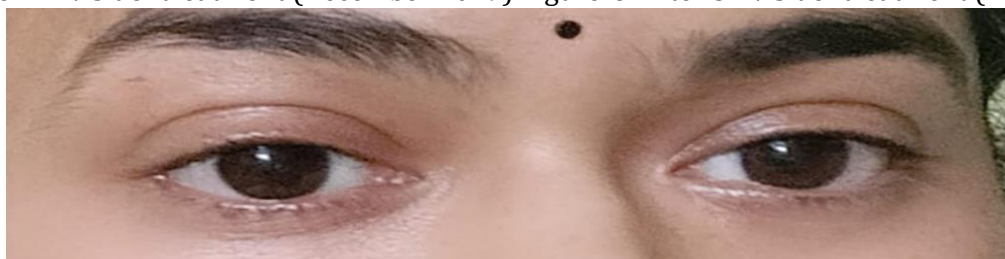


Figure -7 Last OPD visit (July 2021)

**DISCUSSION**

Rasa dhatu contributes to the aqueous part of the tear film, while Mamsa and Medho dhatu contribute to the non-aqueous part. Any factor that causes the Vatapitta and dhatus to become unstable will cause the

tear film to become unstable, resulting in Shushkakshipaka. Irritation, pricking pain, sticky eyelids, trouble blinking, a desire for cold foods, and suppuration are all indications of Shushkakshipaka.

The line of treatment of *Shushkakshipaka* includes *Snehapana*, *Akshi Tarpana*, *Nasya* and *Netra Parisheka* & some *Keraliya Kriyakalpas* also included like *Kizhiswedana* (a kind of *Avgunthana*) Owing to the chronicity of the disease, there is a need for adoption of a treatment which will help in removing the pathology of the disease from its roots hence, *Virechana* & *Matrabasti* has been adopted. *Ksheerabala taila matrabasti* balances the *Rasa*, *Mamsa*, and *Medho dhatu* while also calming *Vata* and *Pitta dosha*. Most of the medicines used here have *Vata*, *Pitta shamka*, *Shodhan* & *Ropan* properties, which increases *Deha* and *Indriya bala* thus it normalizes the *dhatu* which in turn results in the normalization in functions of tear film. *Keshanjana* was also prepared & used here and found very effective as mentioned in *Astanga Hridaya* for *Shushkakshipaka*. Medicine for *Nasya* and *Tarpana*, *Snehpan*, *Shirodhara* were selected as per the classical reference. *Nasya* was done with *Anutail* and *Madhuyasthi* tail as it is indicated in *Shushkakshipaka*. *Anutail* having *Tridosahara* properties. In *Astanga Samgraha*, it is explained that *Nasa* being the doorway to *Shirah* (head). "*Nasa hee sirshodwaram*". the medicine taken through nostril reaches *Shringatak*, a *Siramarma* through *Nasashrota* and enters the *Murdha* (Brain), through *Netra* (eyes), *Shrotra* (Ears), *Kantha* (Throat) and puts out the morbid *Doshas* from *Urdhwajatru* and throw them out from *Uttamanga*, hence it breaks the pathology of *Shushkakshipaka*. *Tarpana* was done with *Durvadi Ghrita* & *Patoladi ghrita*. When used in the eyes, the medicated *Ghrita* has the ability to trespass into minute pathways of the body, thus when used in the eyes, it cleans the deeper layers of *Dathus*. It also gives the lubrication to the ocular surface and definitely helps to check the epithelial damage of conjunctiva and cornea. The disease *Shushkakshipaka* is *Vata Pitta* dominant. Drug used to prepare *Durvadi Ghrita* are having dominantly *Madhura Rasa*, *Sheeta Virya* and *Madhura Vipaka*. Because of these properties it is *Vata-pittashamaka* property. *Patoladi ghrith* also is *Pitta shamaka* & *Chakushya* in nature. As a result, the *Doshas* (*Vata-Pitta*) involved in the *Shushkakshi-paka* are pacified

(Dry Eye). As a result, the *Shushkakshipaka* pathology will be broken.

## CONCLUSION

Thus, it can be concluded that above *Ayurvedic* approach helps in production of tear, reduces burning sensation, photophobia and discomfort of eye. *Nasya*, *Tarpana*, *Seka*, *Aschotana*, *Kizhiswedana* and *Shirodhara* showed significant result in sign & symptoms of dry eye & improved quality of life of patient. As patient was female, so was more worried about beauty of the eyes and after taking this sequence of treatments her eye lids crest formation & itching also recovered. This study emphasizes on the importance of classical approach of *Ayurveda* in successful management dry eye and its complications.

## REFERENCES

1. Steven L Maskin Reversing dry eye syndrome: practical ways to improve your comfort vision Appearance published in 2007 1<sup>st</sup> edition Kindle edition
2. The definition and classification of dry eye disease: report of the Definition and Classification Subcommittee of the International Dry Eye WorkShop (2007). *Ocul Surf.* 2007 Apr;5(2):75-92. doi: 10.1016/s1542-0124(12)70081-2.
3. American academy of ophthalmology <https://www.aao.org/eyenet/article/the-tfos-dry-eye-workshop-ii>
4. Pt. Hari Sadisiva Sastri Paradakara *Astanga Hridaya Sarvangasundra* & and *ayurveda rasayana* commentary reprint 2015 Chaukambha Publications New delhi uttatantra 15/16-17 pp 829.
5. Pt. Hari Sadisiva Sastri Paradakara, *Ashtanga Hridaya Sarvangasundra* & and *Ayurveda rasayana* commentary reprint 2015 Chaukambha Publications New delhi, Uttatantra 16/28 pp 832.
6. Dr. Brahmanand Tripathi *Astanga Hridaya Uttatantra* with Nirmala commentary, Varanasi: Chakumba Surbharti Prakashan; 1999 uttatantra 16/30 pp 993.

### Cite this article as:

Preeti Pahwa, Ashu Vinaik, Priya Patel, Jasmine Kaur. *Ayurvedic Management of Severe Dry Eye Syndrome & Complications: A Case Study.* AYUSHDHARA, 2021;8(5):3542-3546.

<https://doi.org/10.47070/ayushdhara.v8i5.815>

Source of support: Nil, Conflict of interest: None Declared

### \*Address for correspondence

**Dr.Preeti Pahwa**

Associate Professor,

Dept. of Shalakya,

Patanjali Ayurveda Mahavidyalaya,

Haridwar, Uttarakhand.

Email: [drpreeti25@gmail.com](mailto:drpreeti25@gmail.com)