



AN AYURVEDIC MANAGEMENT OF *SHUSHKAKSHIPAKA* (DRY EYE SYNDROME)– A SINGLE CASE STUDY

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3. **ABSTRACT**

4. **Background:** *Acharya Sushruta* has described *Shushkakshipaka* in *Sarvagata Netra Rogaadhyaya* as *Vata* dominating disease whereas *Aacharya Vagbhata* have described it to be a *Vata-Pittaja*. *Shushkakshipaka* is characterized by *Daruna Ruksksha Vartma*, *Avila Darshanam* etc. The disease '*Sushkakshipaka*' can be correlated with Dry Eye Syndrome (DES). **Objectives:** To appraise the Ayurved Management of *Sushkakshipaka* (DES). **Material and Method:** This is a case report of 45 years old woman who approached *Shalaky Tantra* OPD of Government Akhandanand Ayurveda College, Ahmedabad – Gujarat with chief complaints like feeling of dryness in both eyes, burning sensation in eyes, foreign body sensation and blurring of vision from 6 months. The subject was thoroughly examined and diagnosed as *Shushkakshipaka*. The treatment was planned as per *Ayurveda* classics. She was treated with *dipana*, *pachana*, *anulomana*, *shamana aushadhi* with one sitting of *Akshi-tarpana* (for 7 days) and *Anjana* (for 21 days). **Result:-** Due to this treatment patient got complete relief from *Sushkakshipaka* and found excellent result which is discussed in this case study **Discussion:** *Akshi- Tarpana* helps to increase moisture content of ocular surface and repairs the tissue damage occurred due to excessive evaporation which ultimately leads to *Vata-pitta dosha shamana* and *preenana* (lubrication and nourishment) of the eye. *Anjana dravya* spreads into deeper tissue due to its minute particle size through *sira of Netra* and provides nourishment and thus reforms three layers of tear film. **Conclusion:** *Sushkakshipaka* (DES) is effectively treated with Ayurved Management. **Key words:** *Sushkakshipaka*, Dry Eye Syndrome, *Shamana chikitsa*, *Akshi-tarpana*, *Anjana*

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INTRODUCTION

Acharya Sushruta has described *Shushkakshipaka* under the heading of *Sarvagata Netra Roga*. According to *Acharya Sushruta* it is a *Vata* dominating diseaseⁱ whereas *Acharya Vagbhata* has described it as *Vata-Pittaja* disease.ⁱⁱ

In this disease symptoms like *Kunita Vartma* (Narrowing of palpebral aperture), *Daruna Ruksha Vartma* (Crusting of lids), *Aavila Darshanam* (Blurred vision), *Sudarunam Yat Pratibodhane / Kricchronmeela-Nimeelanam* (Stuck eyelids), *Gharsha* (Foreign body sensation), *Toda* (Prickling pain), *Bheda* (Tearing pain), *Upadeha* (Mucoid discharge), *Vishushkatva* (Dryness), *Sheetechchha* (Liking for cold), *Shula* (Crucifying pain), *Paka* (Inflammation), *Daha* (Burning sensation), *Khara Vartma-Akshi* (Rough lids) are mentioned by *Acharya Sushruta* and *Acharya Vagbhata*.^{iii,iv} The signs and symptoms of *Shushkakshipaka* frame a picture of dry eye syndrome in modern science.

“Dry eye is a multifactorial disease of the ocular surface characterised by a loss of homeostasis of the tear film, and accompanied by ocular symptoms, in which tear film instability and hyper osmolarity, ocular surface inflammation and damage, and neurosensory abnormalities play etiological roles.”^v

The term Ocular Surface System represents an elaboration of the Lacrimal Functional Unit, which has been previously used. The ocular surface is a complex unit comprised of various epithelial and glandular tissues (cornea, bulbar and palpebral conjunctiva, lacrimal glands and accessory lacrimal glands) that secrete essential tear film components. These tissues are connected by a continuous epithelium as well as the nervous, immune and endocrine systems. Disease or dysfunction of this functional unit results in an unstable and poorly maintained tear film that cause ocular irritation symptoms and possible damage to the ocular surface epithelium. Tear film has been estimated 40 micrometres thick.

The Schirmer test measures total tear secretions. Normal values of this test are more than 15 mm in 5 minutes. Values of 5-10mm are suggestive of moderate to mild KCS and less than 5 mm of severe KCS.^{vi}

Tear film breakup time (TBUT) is interval between a complete blink and appearance of first randomly distributed dry spot on the cornea. It is an indicator of adequacy of mucin component. Its normal value ranges from 15 to 35 seconds. Values less than 10 seconds imply an unstable tear film.^{vii}

Symptoms suggestive of DES include irritation, foreign body sensation, feeling of dryness, itching, non-specific ocular discomfort. Dry Eye is not curable as per Modern Medicine and management is structured around control of symptoms and prevention of surface damage.

Hence the treatment principle adopted here is the treatments mentioned by *Ayurveda Acharyas* in *Shushkashipaka* with some *Kriyakalpa* which reduces the *Vata-Pitta Dosha*. i.e., *Dipana*, *Pachana*, *Anulomana*, *Shamana Aushadhi*, *Tarpana*, *Anjana*.

MATERIAL & METHOD:

- Patient was selected from OPD no 3. (Shalakyatantra department GAAC)
- Patient was diagnosed on the basis of sign and symptoms of *Shushkashipaka* (Dry eye syndrome)
- Detail History & Examination were carried out.
- Given treatment was based on classical text.
- Subjective criteria were assessed by VAS (visual analogue Scale).

CASE REPORT:

A 45 years old female patient R/o Akhbarnagar, Ahmedabad approached to *Shalaky Tantra* OPD of Government Akhandanand Ayurveda Mahavidyalaya, Ahmedabad – Gujarat on 1st November 2022 with chief complaints of :

CHIEF COMPLAINTS WITH DURATION:

- ❖ *Ubhaya Akshi Vishushkatva* (feeling of dryness) from 6 months
- ❖ *Ubhaya Netra Daha* (burning sensation in eyes) from 6 months
- ❖ *Ubhaya Netra Avila Darshana* (blurred vision) from 6 months
- ❖ *Ubhaya Netre Shookapurnanubhuti – Gharsha* (foreign body sensation) from 4 months
- ❖ *Ubhaya netra kandu kwachit* (itching in eyes sometimes) since 4 months

HISTORY OF PRESENT ILLNESS:

According to patient she was apparently asymptomatic before 6 months. Then gradually patient felt *Vishushkatva* associated with *Daha*, *Avila Darshana*, *Gharsha*, *Toda*, *Kandu* in both eyes. Due to gradually increase in severity of these symptoms, patient was unable to do her routine work she went to Allopathic treatment where she got Artificial tear drops as a treatment. Initially she got relief from suffering up to 1.5 months but then after discontinuation of drops she felt the same complaints. So, with the suggestion of her known person, she came here with a purpose of absolute relief from the complaints.

PAST HISTORY:

- No history of any systemic diseases like hypertension, diabetes.
- No history of any surgery

FAMILY HISTORY:

Not any significant

PERSONAL HISTORY:

- *Ahara - Niramisha*
- *Nidra-7-8 hrs/day*
- *Kshudha- Alpa*
- *Malapravritti- samyaka*
- *Mutrapravritti- 6-8 time/24 hrs*
- **Addiction** – not any

VITALS:

- **Pulse:** 80/min
- **Blood Pressure:** 130/80 mmHg
- **Respiratory rate:** 18/min
- **Temperature:** 98.1 F

DISEASE SPECIFIC EXAMINATIONS:

On examination both eye lids and eye lashes were normal, both eye palpebral conjunctiva congested, right eye bulbar conjunctiva degenerative changes, left eye bulbar conjunctiva pterygium present, both eyes cornea normal, both eyes pupil glow were greyish white and both pupils were reactive.

vision acuity

Vision acuity	Distance Vision without spectacles	Distance Vision with spectacles	Pin Hole Vision	Near Vision without spectacles	Near Vision with spectacles
Right Eye	6/9	6/6	6/9	N/9 (p)	N/6
Left Eye	6/6 (p)	6/6	6/9(p)	N/9	N/9

Schirmer's test – Before treatment	
Right Eye	6mm
Left Eye	5mm

TBUT – Before treatment	
Right Eye	7 sec
Left Eye	8 sec

INVESTIGATIONS:

Routine hematological and urine investigations were normal.

NIDANPANCHAK:

Nidana: Guru, ruksha, amla, katu ahara

Poorvarupa: Avilata, SaSamrambha, Ashru, Kandu, Upadeha

Rupa: Ubhaya Netra Vishushkatva (feeling of dryness)

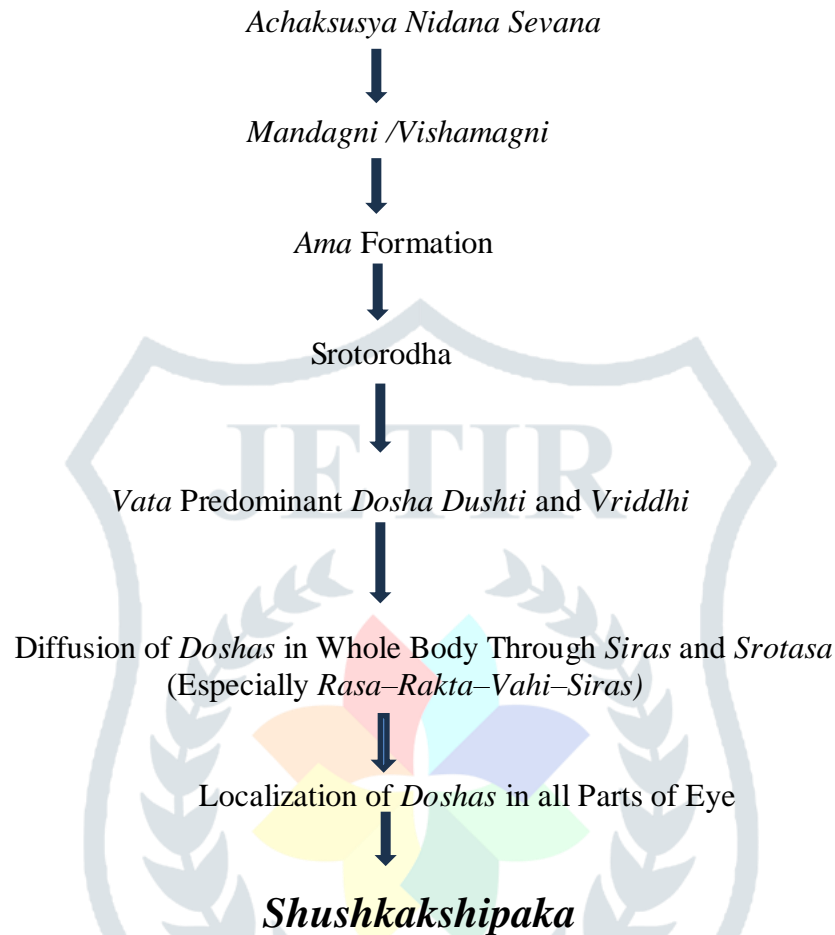
Ubhaya Netra Daha (burning sensation in eyes)

Ubhaya Netra Avila Darshana (blurred vision)

Ubhaya Netre Shookapurnanubhuti – Gharsha (foreign body sensation)

Ubhaya netra kandu kwachit (itching in eyes sometimes)

Samprapti:



SAMPRATI GHATAKA:

Dosha – *Vata–Pittaja*

Dushya – *Rasa, Ashru, Akshi–Sneha, Rakta, Mansa Meda, Majja*

Agni – *Vishamagni*

Srotas – *Rasa – Rakta vahi siras*

Sroto–dushti – *Sanga*

Roga Marga – *Madhyama*

Adhithana – *Sarvagata (Netra)*

Sadhya-asadhya – *Sadhya*

TREATMENT PROTOCOL:

1. *Hingvashtaka churna* – 5 g (BD) with ghee after meals
2. *Avipattikara churna* – 5 g (HS) with lukewarm water
3. *Triphala churna* – 3 g (BD) *netra prakshalanarthe* for 7 days
4. *Triphala churna* – 2 g + *Yashtimadhu churna* – 2 g (BD) *bidalakarthe* for 7 days
5. *Akshi tarpana* with *Jeevantiyadi ghrita* for 7 days (after *bidalaka* has been completed)
6. *Anjana* with *Saindhavadi Rasakriyanjana* (morning) for 21 days (following 7 days gap after completion of *Akshi- tarpana*)

OBSERVATION

Complaints	Before (1/11/2022)		After (22/12/2022)	
	Right Eye	Left Eye	Right Eye	Left Eye
Distance Vision Without Spectacles	6/9 (p)	6/6 (p)	6/9	6/6
Pin Hole vision	6/9	6/9 (p)	6/9	6/9
Near Vision Without Spectacles	N/9 (p)	N/9	N/9	N/9
Schirmer's test	6 mm	5 mm	15 mm	18 mm
TBUT test	7 sec	8 sec	18 sec	20 sec

RESULT

All subjective criteria has been evaluated by vas score.

SYMPTOMS	BT	AT
<i>Ubhaya Akshi Vishushkatva</i> (Feeling of dryness)	++++	-
<i>Ubhaya Netra Avila Darshana</i> (Blurred vision)	++	-
<i>Ubhaya Netre Shookapurnanubhuti – Gharsha</i> (Foreign body sensation)	+++	-
<i>Ubhaya Netra Daha</i> (Burning sensation in eyes)	+++	-
<i>Ubhaya netra kandu</i> (Itching in eyes)	++	-

DISCUSSION:

➤ Number of treatment modalities have been described in *Ayurveda* for the management of *Shushkakshipaka* which can be considered analogues to Dry Eyes. It not only includes localized measures, but

also systemic uses of drugs have also been indicated.

- *Shushkakshipaka* is best treated locally with *Tarpana*, *Anjana* and *Aschyotana* etc. Topical medicines chosen here are *Jeevantyadi ghrita Akashi-Tarpana*, *Saindhavadi Rasakriyanjana*. Here looking at the history of the patient, it seems that the disease is dominated by *vata-pitta dosha*. For this we have selected treatment modalities which have action of *Vata-Pittahara*.
- *Akshi-Tarpana* helps to increase moisture content of ocular surface and repairs the tissue damage occurred due to excessive evaporation which ultimately leads to *Vata- pitta dosha shamana* and *preenana* (lubrication and nourishment) of the eye. *Akshi-tarpana* forms an occlusive film over the surface of the eyeball and improves the composition of tear film by enhancing the mucin and aqueous layers. It prevents frictional damage to the ocular surfaces secondary to lid movement or extra ocular movements. It helps by retaining fluid and maintaining hydration of the ocular surface. It is effective in reducing evaporation rate and blinking rate in patients with dry eye syndrome. It prevents desiccation from corneal tear film and reduces burning sensation in patients with dry eye syndrome. It also reduces reflex tearing and the need for artificial tears and warm compressors. ^{vii}
- *Rasakriyanjana*, a topical treatment, increases the drug's bioavailability by prolonging its time in contact with tissues, reducing dilution, and promoting slow absorption, as is well known. *Anjana dravya* spreads into deeper tissue due to its minute particle size through *sira of Netra* and provides nourishment and thus reforms three layers of tear film.
- **HINGVASTHAK CHURNA^{ix}** is containing *Sunthi*, *Piplai*, *Maricha*, *Ajamoda*, *Shweta Jeeraka*, *Krishna Jeeraka*, *Shuddha Hingu* and *Saindhava Lavana*. It is indicated in *Agnimandya*, *Ajeerna*, *Shoola*, *Grahani*, *Gulma* in *Ayurvedic* literature. It is indicated in all diseases occurs due to *Vata dosha*. Here for *vatanulomana* purpose it is given orally in *Apana kala* with *Ghrita*.
- **AVIPATTIKARA CHURNA** is made up with *Trikatu*, *Triphala*, *Musta*, *Vida Lavana*, *Vidanga*, *Ela*, *Twakpatra*, *Lavanga*, *Trivrutta* and *Sharkara*. It is specially indicated in *Pittaroga*. It contains *Sita* as a major content. So, it can reduce *Vata Dosha* also along with *Pitta Dosha*. *Shushkakshipaka* is a *Vata Pittaja Saravagata Netra Roga*.
- **TRIPHALA CHURNA^x** is given for eye wash twice a day where *Chaksushya* effect of *Triphala* seen locally. *Charaka* mentioned that **Haritaki** is a *rasayana* for the eyes, hence it can be used to prevent the eye diseases. It cleanses the macro and micro circulatory channels, known as “*Srotovishodhini*, and “*Sarvah Dosh Prasamani*”. **Bibhitaki** is an ideal herb for pacifying both *Pitta* and *Kapha*. *Acharaya charaka* quotes *Bibhitaki* as *netre hitam*, meaning it is beneficial for the eyes and it cleanses the *Rasa* (plasma), *Rakta* (blood), *Mamsa* (muscular tissue) and *Medo dhatu*s (adipose tissue) when they act as *dushyas* (vitiating tissues) in the

pathophysiology of a disease formation. *Amalaki* is called *chakshusya*, which means “a *rasayana* for strengthening the eyes, because *Amalaki* enhances *Alochaka Pitta* (a type of pitta that governs the eyes/ vision phenomenon). Because of its high content of Vitamin C, *Amalaki* is a powerful antioxidant.

- **BIDALAKA^{xi}** is one type of *kriyakalpa* in which a paste of medicine is applied over eyelids and periorbital area. *Bidalaka* is useful to control acute symptoms and instant relief. Periorbital skin and skin over lids are thinnest of all over body. Hence paste applied over this skin gets absorbed more rapidly than any other part of body. **YASHTIMADHU** with **TRIPHALA** *lepa* as *Bidalaka* predominantly acts on *rakta* and *pitta* so it acts as *daha shamaka*.^{xii}
- **JEEVANTYADI GHRITA^{xiii}** contains drugs like *Jeevanti*, *Prapoundareeka*, *Kakaoli*, *Sita*, *Ksheera*, *Madhuka*, *Draksha* which are having *Vata Pittahara* and *Brumhana* action. It contains *Triphala* also which is a *Chakshushya Dravya*. *Lodhra* has *Seeta Veerya* and it reduces *Pitta Dosha*. Thus, it helps to increase the moisture content of ocular surface and repair the tissue damage occurred due to excessive evaporation.
- *Ghruta* preparation used in *Akshi-Tarpana* is in the form of suspension containing different particles of the drugs and the particles do not leave the eye as quick as a solution. Tissue contact time and bioavailability is more and hence therapeutic concentration can be achieved by *Akshi-Tarpana*.^{xiv}
- The **SAINDHAVADI RASAKRIYANJANA^{xv}** consists of *Saindhava*, *Devadaru*, *Shunthi*, *Matulunga Swarasa*, *Go Ghruta* and *Stanya*. Due to unavailability of *Stanya*, “*Go Dugdha*” is used as *Pratinidhi Dravya* as indicated by *Acharya Sushruta*.^{xvi}
- This **ANJANA** is having *Chakshushya* and *Tridosha Shamaka* properties. *Madhura* and *Sheeta Veerya* lead to *prasadana karma*. It also acts on the vitiated *Vata* and *rakta / pitta dushti*. The *Vataghna karma* makes an overall attempt to enhance the activity of *Unmesha Nimesha Kriya of vartmapatalas* and improves the nourishment of *Prathama Patala (Tejojalashrita patala)*.
- Also, *Anjana Kriya* improves the qualities of *Tarpaka Kapha* and *Alochaka Pitta* by alleviating the disturbances related to them and enhances the secretions of aqueous, lipid, and mucin contents of the Tear Film of the eye. Because of the above said inherent properties of the drug, after getting absorbed, the ingredients are suspended in *go- dugdha*, which is skin to plasma concentrate thus facilitating drug absorption by ocular tissue. the nutritive elements in *go-dugdha* and *go-ghrita* can nourish the eye as a whole, restoring the overall condition of the eye and promoting tear film maintenance.^{xvii}

➤ **SAINDHAVADI RASAKRIYANJANA** spreads into deeper tissue due to its minute particle size through *Sira of Netra* and provides nourishment and thus reforms three layers of tear film.

CONCLUSION:

Akshi-tarpana with *JEEVANTYADI GHRITA* followed by *Anjana karma* using *SAINDHAVADI RASAKRIYA* showed significant results in signs & symptoms of *Shushkakshipaka*. This line of treatment showed considerable improvement subjectively and objectively. Thus, it can be concluded that the *Ayurvedic* approach is helpful in the treatment of *Shushkakshipaka* along with internal medicine.

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