CASE REPORT

Shushkakshipaka (dry eye syndrome): A case study

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ABSTRACT

Ashru-tear secretion is an integral component of the ocular surface physiology; when compromised (quantitatively or qualitatively) lead to *shushkakshipaka* (dry eye syndrome) with various ocular discomfort symptoms and ultimately the patient may land in corneal blindness.Local, systemic and environmental factors play a major role in its pathogenisis. Vata& Pitta/Rakta vitiation as per Ayurvedic view point are the major contributing pathological factors in its manifestation. Contrary to the available modern medical treatment / management regimen; Ayurveda propounds a systematic systemic/ holistic treatment approach in the treatment of dry eye syndrome. A patient of *shushkakshipaka* was treated with such treatment protocol, is presented as a case study in this article

Key words: : *Ashru, Shushkakshipaka,* dry eye syndrome, *Keratoconjunctivitis sicca*

INTRODUCTION

Tear secretion provides continuous moisture and lubrication on the ocular surface to maintain comfort, corneal, and conjunctival health and vision. The lacrymal gland, globlet cells, and meibomian glands produce different secretions, which compositely form a layer on the eye termed as a tear film. Abnormalities of any of the components of the secretion (quantitatively or qualitatively) lead to the instability of the tear film, resulting in drying of the ocular surface and the syndrome.

Ayurveda describes a similar condition called *Shushkakshipaka*, which matches etymological[1] derivation and clinical picture[2] *Shushkakshipaka* is mentioned in the classical literature of Ayurveda under *Sarvagata Netraroga* (diseases affecting all parts of the eye). Based on our current knowledge of dry eye syndrome, it is more appropriate to consider[3] it as an ocular surface inflammatory syndrome rather than simply a tear film insufficiency. Indeed the term keratoconjunctivitis sicca, used for decades to describe the ocular surface disease that develops in dry eye, by definition, acknowledges an inflammatory aetiology.

Tear substitutes are the only treatment modality with modern medical science. The duration of action of these tear substitutes is variable and are advised as per the need, only providing symptomatic relief. The preservatives present in these formulations are also a cause of dry eye, whereas those available without preservatives (e.g., are not cost-effective.

As per Ayurveda, each patient of dry eye needs a different approach as the etiology and pathology are variable. *Vata-Pitta/ Rakta*[2] vitation in *shushkaksipaka* is the basic pathology due to disturbed system biology which needs a holistic approach to deal with the problem.

We describe a patient with dry eye who was regularly taking medicines and seeking consultation for the problem for a period of 5 years, which included antibiotics orally and topically, artificial tear supplements, and lubricating eye ointment. However, even after that patient had slight symptomatic relief and turned to *Ayurvedic* medicines for relief.

The patient, a 39-year-old woman, Hindu by religion, housewife, living presently in Jamnagar presented at the OPD of *Netraroga* (*Shalakya* department) I.P.G.T. and R.A. Hospital, Gujarat Ayurveda University, Jamnagar, on December 04, 2008. She complained of pain in both eyes, foreign body sensation, and dryness in eyes for the past 5 years.

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Submission Date: 09-05-10 Accepted Date: 16-05-11

Access this article online	
Quick Response Code:	Website: www.ijaronline.com
	DOI: 10.4103/0974-7788.83185

She was a pre diagnosed case of dry eye since November 2003 at Command Hospital (SC), Pune. Her problem started in Pune when she was 33 years old after she suffered from malaria fever in October 2002 for which she took treatment, following which she had an attack of asthma; she was given medicine for inhalation (name and record of the inhaled medicine not available with the patient).

On the very first day of using inhaler, she developed white ulcerative patches in oral cavity in November 2002, but she continued using the inhaler for 1 month, as doctor advised her to use that till her asthma problem persisted. Since then, she was under treatment in Command Hospital in Pune with regular follow-ups. She was treated on the line of oral candidiasis with mild symptomatic relief but oral ulcers persisted thereafter. Along with the patches, she had excessive salivary secretion. After 9 months in August 2003 along with her oral complaint, her ocular complaints started. She had mild blurred vision in 2003, although on examination she had distant visual acuity 6/6 in both eyes. She later complained of foreign body sensation, and burning and whitish discharge in both eyes, more in left eye. At that time her eye examination revealed greasy lid margins in both eyes (L>R),locked meibomian orifices foamy discharge on outer surface, and Schirmer's readings of 10 mm in 05 min (Rt. eye) and 02 mm in 05 min (Lt. Eye). A diagnosis of evaporative dry eye due to chronic meibomitis was made and treatment was given with doxycycline, hot compression over lids, and hypotear plus eye drops.

Later a diagnosis of oral Lichen planus was made and treatment with Triamcidone acetonice paste initiated. Later a further diagnosis of generalized Xerosis was made for which local application of liquid paraffin, glycerine, and water (1:1:2) was prescribed.

In December 2008, the distant visual acuity had become 6/12p in the right eye and Lt. eye 6/9p in the left eye. There was no tear meniscus present and a lot of mucous debris was seen. On fluoresceine staining corneal and conjunctival epithelial defects were seen. The tear film break up time was 3–5 sec in both eyes, and the Schirmer's test was 0 mm in both eyes after 5 min.

Samprapti (Pathogenisis)

Taking lead from the onset of the disease after a drug reaction and evidence of lichen planus (oral ulcers); the basic pathological factors as per *Ayurvedic* aspect were thought to be *pittaja* one which led to deranged *Dhatwagni* (metabolism) which ultimately led to malformation and hypoformations of body tissue, resulting in *Vata* dominance and *Kapha* depletion.

Treatment

All oral and local modern medicines were stopped. Considering this condition as *Shushkakshipaka* (dry eye) wherein vitiation of *Vata* and *Pitta doshas* is described,[2] she was treated with following medicines.

- *Anu taila*[4]: *Pratimarsha nasya* (two drops) twice daily, morning and evening.
- *Rasayana choorna*[5]: 3 g
- *Saptamrita Lauha*: 1 g
- *Praval Pishti*: 125 mg
- *Raupya Makshika bhasma*: 125 mg

Two times mixed with honey and *ghrita* in unequal amount followed by milk twice a day for 1 h. before breakfast and 3 hrs after dinner.

- *Shatavarex* powder: 5 g bd in milk taken with above compound.
- *Dashmoola Kwatha*: 50 ml + Eranda Taila (5 ml)
- *Kesha Anjana*[6]: one drop bd morning and at bed time.

Along with the above medicines, she was advised simple lifestyle modifications that can significantly improve irritation from dry eyes. For example, drinking 8–10 glasses of water each day to keep the body hydrated and flush out impurities, making a conscious effort to blink frequently, especially when reading or watching television and avoiding rubbing the eyes as this only worsens the irritation.

The patient took this treatment for 1 week, with marked relief in symptoms of pain and foreign body sensation. She was advised to continue the same treatment for 1 more week.

On next visit, she complained of abdominal distension. Hence even while, continuing with the same ocular treatment, 5 gm *Hingvashtaka Choorna* twice daily for 7 days was added. One month after starting the treatment, she had marked relief in symptoms but with occasional irritation. Mucous debris still persisted, so eye irrigation with *Shunthi Ghrisht Dugdha* (Su.Ut 9/23-24) twice daily continuing along with previous treatment regimen.

One month later, she had no complaint of pain. Occasional irritation and photophobia were present. Slit lamp examination revealed very few mucus debris and Schirmer's test was 8 mm in both eyes after 5 min.

After 2 months (Feb 2009), patient had no pain and no irritation. was reported by the patient and pain abdomen was also relived . Visual acuity was 6/6 Partial in both eyes.

In April 2009, *Anu Taila—Pratimarsha Nasya* was replaced by *Ksheer Bala Taila* and *Hingvashtaka choorna* was replaced

by *Avipattikara Choorna* 3 gm bd before meals and since then, patient is not having any type of complaint with both subjective and objective relief and Schirmer's reading being 10 mm in both eyes after 5 min. Addition of *Ksheer bala taila* and *Avipattikara Choorna* better combated *Vata-Pitta* pathology of the present patient. Her abdominal pain also got relieved by the addition of *Avipattikara Choorna*.

Conclusions

In the present case drug induced auto immune reaction was responsible for oral lichen planus[7,8] and dryness of the eyes which probably was over looked hence patient could not get the relief. Thus taking a holistic view point in the understanding of the disease *shushkakshipaka* (dry eye syndrome) and planning the treatment protocol accordingly; has proved much effective than the prevailing management modalities. Subjective and objective parameters clearly indicates that this condition of dry eye, in which the three components of tear film were involved, was not only due to chronic meibomitis but due to autoimmune reaction too. a. Hence, systemic and holistic approach to treat the disease *Shushkakshipaka*, (*Sarvagata Vata-Pitta/Raktaja Netra Roga*) and managing this humeral imbalance, along with local/ topical therapeutical procedurs, the condition could be managed well.

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*[9] and without normalzing/altering them we cannot treat dry eye syndrome optimally.

Vata-pittahara oral, local, *nasya* (*Snehana*) therapy was initiated with the prescribed medicine. But *Vata* was managed first with *Anutaila nasya* and *Dashmool kwatha* + Castor oil orally. A close watch on *Jatharagni* (digestion) was kept and corrected as well. With this treatment, ocular discomfort was relieved and then *Avipattikarchoorna* was added for regular *pitta, virechana* action as well as the *Anu taila nasya* was replaced with *Ksheer Bala taila*, *Brihmana nasya*. Milk + Shunthi Seka (irrigation)[10] was added as another local snehana and it relieved the mucous debris too.

Thus, *snehana* with *Anutaila, Ghrita, Eranda sneha, Ksheerbala taila* systemically and *Keshanjana*, Milk+ *Shunthi* locally on eye and *Pitta-virechana* along with *Vata-pitta hara* oral *Rasayana* (anabolic) medicines worked well in relieving the ocular discomfort.

Thus, as we can conclude that the dry eye is a condition for which modern medicine has no treatment except for the symptomatic management; the holistic approach of *Ayurvedic* system of medicine provided both subjective and objective relief to the patient.

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How to cite this article: Dhiman KS. Shushkakshipaka (dry eye syndrome): A case study. Int J Ayurveda Res 2011;2:53-5.
Source of Support: Nil, **Conflict of Interest:** None declared.