



"REVIEW STUDY ON SHUSKASHIPAKA W.S.R TO DRY EYE SYNDROME"

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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 pathogenesis. Vata& Pitta/Rakta vitiation as per Ayurvedic view point are the major contributing pathological factors in its manifestation.

Acharya Sushruta¹ has describe Sushkakshipaka in details the Sushruta samhita (su,su,45/98).There are so many treatment of Shushkakshipaka like Aschyotan, Anjan, Tarpan, but Aschyotan kalpana is very effective, safe, easy available.

Sushkakshipaka is a Sarvagata Akshiroga which may be correlated with Dry eye syndrome in modern ophthalmology in one of the Sarvagata Netra rogas. Dry eye syndrome is a common disorder of the normal tear film that results from production of mucus or lipids normally found in the tear layer.

KEYWORDS-*Ayurveda, Shalakytantra, Sushkakshipaka, Nidan, Dry Eye Syndrome*

INTRODUCTION-

Ayurveda best to us with the knowledge how to prevent disease and how to eliminate its root of cause if it does occur. While modern medicine tends to focus on management of disease. Both system of medicine has their own concept regarding the eye disease and their management. Among many eye diseases which have been described by the ancient classics of Ayurveda, the clinical feature of Sushkakshipaka is having similarity with dry eye.

Sushkakshipaka is one among Sarvagata^[2] Netra Rogas mention by sushruta as well as vagbhata under Sadhya Vyadhis, caused due to affliction of Vata and Pitta Doshas having symptoms of Shushkata(Dry eyes) Gharshna (foreign body sensation), Daha(Burning sensation), Kandu(itching), Raga(redness in eye)

Eye is considered to be the most important and noblest sense organ of human body. Ayurveda and Modern medicines, both sciences have their own concept regarding the eye disease and their management. In Ayurveda samhitas different types of treatment and procedure are suggested to cure the eye diseases. Shushkaakshipaak is one of the *sarvagat vatapittajanya vyadhi*

Dry eye syndrome is a similar entity in the modern ophthalmology which is recognized as clinical disorder in 1920 and described clinically in early 1930's, the greatest amount of information both from an epidemiological and pathogenetic perspective has accrued during the last 10 years³, which indicates that the awareness and incidence of this disease is increasing in recent times. Prevalence of dry eye syndrome is estimated to be 14 to 33% world wide i.e. 1 out of every 3 to 7 patients could have this condition⁴. A recent survey conducted in year 2002, based upon a well characterized population of adult men and women in USA identified a prevalence of 6.7% in women over the age of 50 and 2.3% in men over the age of 55. These rates extrapolate to potentially 9.1 million dry eye patients in USA alone. Even though no authentic prevalence survey has been carried out in India, it is estimated that 45% of patients older than 40 years may have this problem i.e., one out of every 5 above 30 years attending OPD could have this condition⁵.

MATERIAL AND METHODS-**❖ Nidana of Shushkaakshipaka:**

Different *Acharyas* have propounded the *Samanya Nidanas* for the *Netra Roga*⁶

Samanya Nidanas of Netrarogas according to various Acharya:

<i>Nidanas</i>	<i>Su.Sa</i> ⁷	<i>M.N</i> ⁸	<i>B.P</i> ⁹	<i>Y.R.</i> ¹⁰	<i>V.Sen.</i> ¹¹
<i>Ushnabhitaptasya jale pravashaat</i>	+	+	+	+	+
<i>Doorekshanata</i>	+	+	+	+	+
<i>Swapna Viparyayata</i>	+	+	+	+	+
<i>Prasakta Samrodana</i>	+	+	+	+	+
<i>Kopa</i>	+	+	+	+	+
<i>Shoka</i>	+	+	+	+	+
<i>Shukta-Arnala-Amla-Kulattha-Nishevana</i>	+	-	+	-	-
<i>Shiro-Abhigata</i>	+	+	+	+	+
<i>Vega- Vinigraha</i>	+	+	+	+	+
<i>Ati-Sweda</i>	+	+	+	+	+
<i>Dhoom Nisevana</i>	+	+	+	+	+
<i>Chardi Vighata</i>	+	+	+	+	+
<i>Bashpagraha</i>	+	+	+	+	+
<i>Sukshma Nireekshana</i>	+	+	+	+	+
<i>Ati Dravanna Pana/ Dravattatha-Annanishisevitata</i>	-	+	-	+	+
<i>Atimadyapanat</i>	-	+	-	+	+
<i>Ritunamcha Viparyaya</i>	-	+	-	+	+
<i>Ati-Sheeghra-Yanat</i>	-	-	+	-	-
<i>Abhishyanda</i>	+	-	-	-	-

□ **SAMPRAPTI:***Hetu Sevanah*It aggravate *Vata & Pitta Dosha*It aggravate *Raktadhatu* in the *Sira*(Increase *Rukshata & Daha*)These Vitiated *Doshas* towards eye through *sira**Kha-Vaigunya* Present in the *Sravakshi*Produces symptoms *Rukshata Daha AraktaNetrata* Etc.*Shushkaakshipaka***PURVA RUPA OF SHUSHKAAKSHIPAKA:**The *Samanya Purva Rupa* of *Netra Rogas* can be considered here, which is given below¹²:

Sr. No.	<i>Purvarupa</i>	Features
1.	<i>Avilata</i>	Dirty eyes with discharges (<i>Malayuktam</i>)
2.	<i>Sasarambha</i>	Angry look
3.	<i>Ashru</i>	Watering
4.	<i>Kandu</i>	Itching
5.	<i>Upadeha</i>	Stickiness

6.	<i>Guruta</i>	Heaviness
7.	<i>Usha</i>	Burning sensation
8.	<i>Toda</i>	Pricking pain
9.	<i>Raga</i>	Redness
10.	<i>Vartma Kosha Shoola</i>	Pain in the fornices
11.	<i>Vartma Kosha Shookapurnabha</i>	Foreign body sensation in the fornices
12.	<i>Vihanyamana Rupa</i>	Visual disturbances
13.	<i>Vihanyamana Kriya</i>	Subnormal functions of the eye
14.	<i>Kriyaswakshi Yathapura</i>	Reduced activities/movements e.g. blinking

RUPA SHUSHKAKSHIPAKA:

The *Rupa* as described by different *Acharyas* are as follows:

Sr. No.	<i>Rupa</i>	Su.Sa ¹³	A.S. ¹⁴	M.N. ¹⁵	B.P. ¹⁶	Y.R. ¹⁷	<i>Karala</i> ¹⁸
1.	<i>Kunita-Vartma</i> (Narrowing of palpebral aperture)	+	+	+	+	+	+
2.	<i>Daruna Ruksha Vartma</i> (hard and rough lids)	+	+	+	+	+	-
3.	<i>Aavila Darshanam</i> (Blurred vision)	+	-	+	+	+	+
4.	<i>Sudarunam Yat Pratibodhane/Kricchron meela-Nimeelanam</i> (difficulty in opening the lids)	+	+	+	+	+	+

5.	<i>Gharsha</i> (Foreign body sensation)	-	+	-	-	-	-
6.	<i>Toda</i> (Pricking pain)	-	+	-	-	-	-
7.	<i>Bheda</i> (Tearing pain)	-	+	-	-	-	-
8.	<i>Upadeha</i> (Mucoid discharge)	-	+	-	-	-	-
9.	<i>Vishushkatva</i> (Dryness)	-	+	-	-	-	-
10.	<i>Sheeteccha</i> (Liking for cold)	-	+	-	-	-	-
11.	<i>Shula</i> (Crucifying pain)	-	+	-	-	-	-
12.	<i>Paka</i> (Inflammation)	+	+	+	+	+	+
13.	<i>Daha</i> (Burning sensation)	-	-	+	+	+	+
14.	<i>Khara Vartma</i> (Rough lids)	-	-	-	-	-	+

Sadhya-Asadhyata of Shushkaakshipaka¹⁹:

Shushkaakshipaka is a *Sarvagata*, *Sadhya* (Curable) disease. All the *Acharyas* have described it to be an *Aushadha* (*Ashastrakruta*) *Sadhya Vyadhi*.

Updrava:

Acharya Vagbhata has enumerated the *Shushkaakshipaka* in 18 diseases which can acquire chronicity and termed as '*Pilla*²⁰.

Pathya²¹:

Ahara - *Purana Yava*, *Godhooma*, *Shali Dhanya*, *Shashtika Dhanya*, *Kodrava*, *Mudga*, *Shaka*, *Jangala Mamsa*, *Dadima*, *Sita*, *Saindhava*, *Triphala*, *Draksha*, *Nabhasa Jala*, *Ghrita* and other *Kapha-Pitta* suppressive diet.

Vihara - Eye wash with *Triphala*, blood letting, purificatory measures (e.g. *Pancha Karma*),

Regular use of *Anjana* and *Nasya*, looking after the health of one's own feet (e.g. Foot massage and bath, maintaining hygiene, wearing footwear), using umbrella, and maintaining general cleanliness.

*Apathya*²²:

Ahara- Vidahi-Vishthambhi Ahara and *Aushadha, Adhyashana*.

Vihara- Vegavidharana, Krodha, Shoka, Divasvapana, Ratrijagrana, seeing very shining, fast moving and minute objects.

MODERN ASPECT OF DRY EYE SYNDROME

DEFINITION OF DRY EYE:

Dry Eye Workshop 2007²², Dry eye is a multifactorial disease of the tears and ocular surface that results in symptoms of discomfort, visual disturbance, and tear film instability with potential damage to the ocular surface. It is accompanied by increased osmolarity of the tear film and inflammation of the ocular surface.

Dry eye is recognized as a disturbance of the Lacrimal Functional Unit (LFU), an integrated system comprising the lacrimal glands, ocular surface (cornea, conjunctiva and meibomian glands) and lids, and the sensory and motor nerves that connect them. Trigeminal sensory fibres arising from the ocular surface run to the superior salivary nucleus in the pons, from whence efferent fibres pass, in the nervus intermedius, to the pterygopalatine ganglion. Here, postganglionic fibres arise, which terminate in the lacrimal gland, nasopharynx, and vessels of the orbit. Another neural pathway controls the blink reflex, via trigeminal afferents and the somatic efferent fibres of the seventh cranial nerve. Higher centers feed into the brainstem nuclei, and there is a rich sympathetic supply to the epithelia and vasculature of the glands and ocular surface.

This functional unit controls the major components of the tear film in a regulated fashion and responds to environmental, endocrinological, and cortical influences. Its overall function is to preserve the integrity of the tear film, the transparency of the cornea, and the quality of the image projected onto the retina. At the 2007 Dry Eye Work Shop, it was noted that the corneal and conjunctival epithelia are in continuity, through ductal epithelia, with the acinar epithelia

of the main and accessory lacrimal glands and the meibomian glands, which themselves arise as specialized invaginations from the ocular surface. Also, these epithelia have the same embryological derivation. This broader concept, which has additional features, has been termed the Ocular Surface System.²³

An important aspect of the unit is the part played by sensory impulses, which arise from the ocular surface, in the maintenance of resting tear flow. Currently, it is considered that waking tear flow is a reflex response to afferent impulses deriving particularly, but not entirely, from the ocular surface. Sensory input from the nasal mucosa also makes a contribution. Disease or damage to any component of the LFU (the afferent sensory nerves, the efferent autonomic and motor nerves, and the tear-secreting glands) can destabilize the tear film and lead to ocular surface disease that expresses itself as dry eye. Tear film stability, a hallmark of the normal eye, is threatened when the interactions between stabilizing tear film constituents are compromised by decreased tear secretion, delayed clearance, and altered tear composition. Ocular surface inflammation is a secondary consequence. Reflex tear secretion in response to ocular irritation is envisioned as the initial compensatory mechanism, but, with time, inflammation accompanying chronic secretory dysfunction and a decrease in corneal sensation eventually compromises the reflex response and results in even greater tear film instability. Perturbation of the LFU is considered to play an important role in the evolution of different forms of dry eye. The distinctions Aqueous-deficient dry eye and evaporative dry eye were removed from the definition, but are retained in the enteropathogenic classification.²⁴

- Dryness
- Burning or stinging
- Gritty or scratchy sensation
- Sandy sensation

Tearing/discharge symptoms:

- Mucus discharge
- Tearing

Vision symptoms:

- Vision fluctuation
- Vision that improves with tears

Dry eye severity grading scheme

Dry Eye Severity Level	1	2	3	4
Discomfort, severity & frequency	Mild and /or episodic; occurs under environmental stress	Moderate episodic or chronic, stress or no stress	Severe frequent or constant without stress	Severe and/or disabling and constant
Visual symptoms	None or episodic mild fatigue	Annoying and/or activity limiting episodic	Annoying, chronic and/or constant, limiting activity	Constant and/or possibly disabling

Conjunctival injection	None to mild	None to mild	+/-	+/>+
Conjunctival staining	None to mild	Variable	Moderate to marked	Marked
Corneal staining (severity/location)	None to mild	Variable	Marked central	Severe punctuate erosions
Corneal/tear signs	None to mild	Mild debris, decreased meniscus	Filamentary keratitis, mucus clumping, Increased tear debris,	Filamentary keratitis, mucus clumping, Increased tear debris, ulceration
Lid/meibomian glands	MGD variably present	MGD variably present	Frequent	Trichiasis, keratinization, symblepharon
TBUT (sec)	Variable	≤ 10	≤ 5	Immediate
Schirmer score (mm/5 min)	Variable	≤ 10	≤ 5	≤ 2

DISCUSSION –

Drastic change in day-by-day activities including life style, food habits, environmental pollution, industrial and occupational hazards and increased use of systemic medicines have resulted into increased prevalence of many ophthalmic diseases. The diseases of the eye are much more important than any other physical disability since the loss of vision completely disables the patient. Methods of ancient medical sciences among all the others. It is proved science, but needs to be proved its efficacy on the platform of modern parameter, acceptable,

recognized and standard research. In Ayurveda Samhitas different types of treatment and procedure are suggested to cure the eye diseases. Shushkaakshipaak is one of the *sarvagat vatapittajanya vyadhi*

This eye diseases are commonly occurring due to Heena, Ati and Mithya Yog. Eg. Excess use of computer, polluted air, viewing of TV and Excess out door work, excessive driving. So, in Tarpan Procedure Acharya has described use of snigdha and madhur rasatmaka dravya in Vatapittajanya Vyadhi. Detailed description of Shushkakshipaka, and it's Nidanapanchak Pathyaapathya, Sadhya- asadhyata, have been mentioned under the Ayurvedic aspects.

CONCLUSION-

The clinical sign and symptoms of Shushkakshipaak are closely related to Dry eye syndrome. Patients had given advice to avoid causes of Shushkakshipaak is very effective. E.g.- Regular blinking of eye, avoid direct exposure to air conditioners, coolers, hot air, avoid contact lenses, avoid kajal, avoid rubbing of eye, etc. Aschotana ,Bidalaka can be considered as a good alternative treatment in Dry Eye Syndrome.

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