

Conceptual Analysis of Shushkakshipska (Dry Eye Syndrome)

Dr. Shruti. B. Meti¹, Dr. Vinod Jadhav², Dr. V. P. Naganur³

¹PG Scholar, ²Professor and HOD, ³Professor, Guide,

^{1,2,3}Department of PG Studies in Shalakyta Tantra,

Shri Vijay Mahantesh Ayurvedic Medical College, Ilkal, Karnataka, India

ABSTRACT

Netra is one of *pradhana anga*, our eye sight is most important senses, 80% of what we perceive comes through our sense of sight. By protecting the eyes we can reduce the odds of blindness, visionloss. When there is *Akshipaka* associated with *Shushkata* is known as *Shushkakshipaka*¹. It is caused by vitiation of *Vata*, *Pitta* and *Rakta dosha*. Dry eye syndrome (KSK) Keratoconjunctivitis sicca is multifactorial disease of ocular surface due to loss of homeostasis of tear film, characterized by symptoms of discomfort, irritation, visual disturbance.

KEYWORDS: *Shushkakshipaka, Keratoconjunctivitis sicca, Dry eye syndrome*

How to cite this paper: Dr. Shruti. B. Meti | Dr. Vinod Jadhav | Dr. V. P. Naganur "Conceptual Analysis of Shushkakshipska (Dry Eye Syndrome)" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-6 | Issue-2, February 2022, pp.1373-1378, URL: www.ijtsrd.com/papers/ijtsrd49439.pdf



Copyright © 2022 by author (s) and International Journal of Trend in Scientific Research and Development Journal. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0) (<http://creativecommons.org/licenses/by/4.0>)



1. INTRODUCTION

Chanakya in *Neeti Samhita* explains that “*Sarvasya gatrasya shiras pradhanam, Sarvendriyanam Nayanam pradhanam*”. Head is the prime important part in the body and among all *Indriyas nayanam* is prime important. So *Charak* in *matrashitiya adhyaya* explained *Anjana* initially, as eyes are important organ in the body similar to sun among other planets, clouds, air². Man should make all the efforts to protect the eyes from external hazards, and diseases. *Shushkakshipaka* is one among such disease which involves whole eye. In present era, change in life style causes many disorders of eye like, Cataract, refractive errors, Diabetic retinopathy, Allergic conjunctivitis, Glaucoma, Dry eye syndrome. Dry eye is recognized as disturbance in Lacrimal Functional Unit, it is integrated system comprising of Lacrimal glands, Ocular surface, lids and sensory and motor nerve which connects them. This functional unit controls the major components of tear film in a regulated fashion and respond to environmental, endocrinological, and cortical influences. Dry eye is

multifactorial disease of tears and ocular surface that results in symptoms of discomfort, visual disturbance, tear film instability with potential damage to ocular surface. It is accompanied by increased osmolarity of tearfilm and inflammation of ocular surface³. *Shushkakshipaka* is one such disease explained under *Sarvagatanetraroga by Sushruta and Vagbhata* as it affects all the *netramandalas* and it is one of *Sadhya Vyadi*⁴.

The concept of *Nidana, Samprapti, Poorvaroopo, Laxanas, Chikitsa, Upashaya, Anupashaya, Sadhyasashyata, Pathyapathya* concerned to *Shushkakshipaka* are discussed here.

Nidana

Acharyas had described *hetu* of all *Netra rogas* in general as

(*Su –Sushruta samhita, MN –Madhava nidhana, BP –Bhava Prakash, VS –Vanga sena, YR – Yoga Ratnakara*)

No	Nidana	Su ⁵	MN ⁶	BP ⁷	VS ⁸	YR ⁹
1	<i>Ushnabitaptasyajalepraveshat</i>	+	+	+	+	+
2	<i>Durekshanat</i>	+	+	+	+	+
3	<i>Swapnaviparyaya</i>	+	+	+	+	+
4	<i>Samrodhana</i>	+	+	+	+	+
5.	<i>Kopa</i>	+	+	+	+	+
6	<i>Shoka</i>	+	+	+	+	+
7	<i>Sukta-aranala-amla-kulathanishevana</i>	+	-	+	-	-
8	<i>Shiroabhigata</i>	+	+	+	+	+
9	<i>Vegavinigraha</i>	+	+	+	+	+
10	<i>Atisweda</i>	+	+	+	+	+
11	<i>Dhoomanishevana</i>	+	+	+	+	+
12	<i>Chardivighata</i>	+	+	+	+	+
13	<i>Bashpagraha</i>	+	+	+	+	+
14	<i>Sukshma nireekshana</i>	+	+	+	+	+
15	<i>Atidravannapana/ Dravattatha-anna- nishi sevitata</i>	-	+	-	+	+
16	<i>Atimadhya panat</i>	-	+	-	+	+
17	<i>Rituviparyaya</i>	-	+	-	+	+
18	<i>Atisheeghra yanat</i>	-	-	+	-	-
19	<i>Abhishyanda</i>	+	-	-	-	-

Table no 1 showing the nidanas according to different Acharyas

Shushkakshipaka Nidanas are not explained separately, The *samanya nidhanas* which may cause *Shushkakshipaka* are discussed here

- **Aharaj nidana**

- Shukta, Aranal, Amla, Kulattha Nishevana

These are the drugs which are dominant in *Amla, Katu, Kashaya. Katu rasa atisevana* causes *shosha* and *daha* in various parts of body. *Amla rasa atisevana* causes *Akshi Sankoch*¹⁰. Among these Shukta and Aranal are fermented foods, these contain histamines, which causes vasodilatation and causes Allergic manifestations. *Kulattha Kashaya rasa, Ushna in veerya, rooksha, teekshna in guna, Amla vipaka, Kulattha is Vidahi ahara, Pitta and Raktaprakopaka*¹¹. *Shushkakshipaka* is *Vata, pitta, rakta* predominant disease *kulattha* intake is ideal *nidhana* for *Shushkakshipaka*

- **Atimadyapaanat:**

These are *Pittakarak* and *Amla, vidahi, ushna veerya, teekshna, vyavayi, vikasi*¹² in nature. Alcohol is diuretic making the person to urinate more and causing dehydration, leading to dry eye. Past studies investigating the association between the alcoholic consumption and dry eye. In one experimental study alcohol was found to be secreted into tears, increasing tear film osmolarity and shortning tearfilm break uptime¹³.

- **Atidravannapana/ Dravattatha-anna- nishi sevitata**

Atidrava annapana specially at night caused increase in the abdominal pressure which may increase extracellular fluid volume. Hence pressure is exerted on arterioles specially micro circulation in eyes, which causes occlusion and inflammatory changes.

- **Viharaj nidhana**

- **Swapna viparyaya:**

Improper sleeping habits, sleeping at day time and working during night time this causes improper drainage of tears and aqueous humour.

- **Shiroahigata**

Head injury may cause damage to Lacrimal apparatus, in cases of paralysis, bells palsy the affected side side eye do not close properly, blinking rate may decrease causing dry eye

- **Vegavinigraha**

- *Vata* and *vit nighraha* causes *Shirashoola* and *drishti vikaras*
- *Kshavatu nighraha* causes *Shiroruja* and *indriya dourbalya*

- *Bashpa nigraha* causes *Akshi rogas*, Clogging may causes decrease in tear production by lacrimal apparatus, instability of tear film, dryness of ocular surface
- *Chardi nigraha* causes *Akshi kandu*

➤ **Dhoom nishevana**

Excess exposure to dust, wind, sun light may cause damage to anterior segment of eye, ocular injury occurs due to oxidative stress¹⁴

➤ **Sookshma nireekshana**

Visualising minute objects for long duration like Computers, handloom workers there is reduced blinking rate, which in turn causes evaporative dry eye

➤ **Rutu viparyaya**

Changes in climate has impact on eyes. In cold condition causes constriction of blood vessels in eye, excess hot condition *Vasant rutu* indulging in *pittakara vihara* causes *Abhishyanda* (Keratoconjunctivitis sicca)

➤ **Atisheeghra yaanat**

By travelling in bike, running fast without covering the face. One has to expose to fast blowing air, dust, Bowman's layer of cornea and tear film gets destroyed. Causing evaporative dry eye.

➤ **Abhishyanda**

Is main reason for almost all eye diseases, cause for *Sandi adigata rogas* is *Abhishyanda*. So treat the *Abhishyanda* in *poorvaroopa* stage only.¹⁵

• **Manasika Nidana**

- **Prasakta Samrodhana:** Contineous weeping for long time where there is stimulation of lacrimal glands, secreting more fluids and washes away nutrients, conjunctival sac and lacrimal apparatus looses its defence mechanism against diseases.
- **Shoka, Kopa:** Changes in endocrine and cardiovascular system towards biology of grieving, this impacts the brain and neurotransmitters further impact on eyes.

SAMPRAPTI¹⁶:

In Ayurveda, separate pathogenesis for *Shushaksipaka* is not described. Therefore the general *samprapti* of *netra roga* can be considered here. Aggravated *Doshas* circulating in the channels when go upwards and takes *SthanaSamshraya* in *Netra mandala&Patalas* causes *Netra rogas*.

Samprapti Ghatakas

Dosha	Vata pitta and Rakta
Dushya	Rasa and Rakta
Srotas	Rasa Raktavahasrotas
Srotodushti	Sanga
Rogamarga	Madhyama
Adhishtana	Netra Mandalas

Table no 2 showing the Samprapti ghatakas

PURVARUPA

Purvaroopa or prodromal symptoms in *Netra rogas* in general are

Avila, Sasamrambha, Ashru, Kandu, Upadeha, Guru, Uusha, Toda, Raga, SashoolaVartmakosha, Shukapoomnabha, Vihanyamana roopa

Few of above purvaroopas are also present in prodromal symptoms of *Shushkakshipaka*, *Acharya sushruta* explains to treat the the disease in *poorvaroopa* stage only or else it causes *balavan roga*¹⁸

- *Avilata: Ashrupoorna*
- *Sasambrambha: Shofayukta*
- *Ashru*
- *Kandu*
- *Guru, Uusha, toda, raga: in this stage avyakta lakshanas*

- Gurutwa – Kapha pradhana roga
- Uusha -Pitta pradhana roga
- Toda -Vata pradhana roga
- Raga - Rakta pradhana roga
- Sashoolavartma kosheshu
- Shuka poornabham
- Vihanyamana roopa
- Unmesh, Nimeshadi kriya vighata

LAXANAS

Laxanas	S. S ¹⁹	A. H ²⁰	A. S ²¹	V. S ²²	M. N ²³	B. P ²⁴	Y. R ²⁵
Rooksha vartmakshi	+	+	+	+	+	+	+
Gharsha	-	+	+	-	-	-	-
Toda	-	+	+	-	-	-	-
Daruna vartmakshi	+	+	+	+	-	+	+
Vikoonana	-	+	+	-	+	-	+
Vishushkata	-	+	+	-	-	-	-
Shoolapaka	-	+	+	-	-	-	-
Daha	-	-	-	+	+	+	+
Avila darshana	+	-	-	+	+	+	+
Kricchronmilana	-	+	+	-	+	-	-
Sheetheccha	-	+	+	-	-	-	-
Vilokana	+	-	-	+	-	+	-
Upadeha	-	+	+	-	-	-	-

Table no 3 Showing the Laxanas according to different Acharyas

Vata pradhana Laxanas

- Kunita, Daruna, Rooksha Vartma: Nimilita, Kathin, Rooksha vartma
- Gharsha: Feeling of gritty/Sandy/FB Sensation
- Toda: Pricking pain
- Kricchronmilan: with difficulty person blinks
- Vilokane aviladarshana: Eye strain or Asthenopia

Pitta pradhana Laxana

- Daha -Burning sensation
- Sheetheccha-Desire for cold or cool objects
- Vikoonana: Photophobia
- Upadeha: Stingy ropy mucoid discharge

Rakta Pradhana Laxanas

- Raga – Redness/Congestion

UPASHAYA

Means medicines, food items and activities which give feelings of wellbeing to the patient are known as Upashaya.

*Sheethechha*²⁶ - Likeness for cold, it can be considered as the patient will feels better while washing the eyes with cold water

ANUPASHAYA

All the *nidanas* can be considered as *Anupashaya* for *Shushkakshipaka*

SADHYASADHYATA

- *Sarvagata AushadhaSadhyaVyadhi*²⁷
- *Shushkakshipaka* should be treated similar to *Vataja Abhishyanda* with *Ghruta* processed with *Kulira mamsa rasa*. *Anjana* with *Saindhava*, *Daru*, *Shunti*, *Matulung Ghruta*, *Sthanya*. *Sarpi pana* and *Tarpana*, *Nasya* with *Jeevaneeya ghruta*, or *Anutaila*. *Parisheka* with *sheeta paya* and *Saindhava* or *Haridra*, *Daruharidra*, *Saindhava* with *paya*²⁸.
- *Seka* with *Ksheera* and *Saindhava* is Mentioned²⁹.
- *Aschotana* can be performed with *Darvi*, *Prapaundarika kwatha*, *Manjishta kwatha*, *Mridweeka kwatha* or *Chandanadi kwatha*³⁰.
- *Nasya karma* should be performed with *Anu taila* or *Sarivadi taila*. *Aschotana* and *Putapaka* is indicated with *Snighda* and *Jeevaneeyagana dravya samsiddha ghruta*. *Anjana* can be performed with *masi* should be obtained by burning the hairs dipped in ghee in *antardhuma karma*³¹.
- *Churnanjana* prepared from *Manjishta*, *Triphala*, *Katankata*, *Loha bhasma*, and *Srotonjana* can be applied. *Pindanjanana* prepared from mixing equal

quantity of *tamra raja, sahachara pushpa, pundarika, madhuka, kalanusari, sariva* with *aja dugdha*. *Sneha anjana* prepared from *anupamamsa vasa* with the powders of *shunti and saindhava*. *Basti karma* with *ghrita manda, madhuka and shatavari* are specially indicated in the treatment of *Shushkakshipaka*³².

PathyaAhara: *Yogaratnakara* adds *Peya, Vilepi, Tikthaand LaghuAhara, Shali, Tandula, Godhuma, Saindhava, Goghritha, Gopaya, Sitha, Kshoudra, Draksha, Kustumburu, Surana, Matsyakshi, Punarnava*

Apathya: *Masha, Aranala, Katuthaila, PatraShaka, Matsya, Dadhi, Phanita, Vesavara, Pinyaka, Virudhaka, Ambupana, Madhukapushpa, Sura, Ajangalamamsa, Tambula*, food and drinks which are *Amla, Lavana, Vidahi, Teekshna, Katu*

PathyaVihara: *ManasoNivritti*(withdrawing the mind from objects of senses.), *Padabhyanga, SheetaJala Prakshalana* etc.

Apathya: *Krodha, Shoka, AtiMaithuna, Vata, Vinmutra, NidraVegavarodha, Sukshmekshana* (looking at minute objects), *Snana, Atapa, Dhuma*.

Conclusion:

Shushkakshipaka is disease where *Vata, Pitta, Rakta* are vitiated. The *nidan* helps in accessing the involvement of *dosha*, *Achary Sushruta* says that *Nidana parivarjana* is *chikitsa*, if *nidan* is avoided disease is half treated. *Samprapti ghatakas* helps in analyzing the course of disease. *Poorvaroopas* helps in identifying predominant *dosha*. *Acharya sushruta* opines that a good *vaidhya* should treat the disease in *Poorvaroop* stage, or else it will lead to *balavan roga*. *Laxanas* are *vyakta roopa* of *Poorvaroopas*. *Upashaya* and *Anupashaya* helps to predominant *dosha*. *chikitsa* according different *acharyas* are explained, where many of *kriyakalpas Anjana, Seka, Nasya, Tarpana, Pana* are explained. *Pathyapathya* supports the *chikitsa*, and helps the person to get back to normal functioning of eye.

References:

- [1] Shatri. S. Madhavanidanam with Madhukosha Sanskrit Commentary. part2. Varanasi: Chaukamba Sanskrit Sansthan; 2005 p. 265
- [2] Agnivesha Charak Samhita Sutrasthana 5/ 13 Deepika commentary by Chakrapanidatta, Choukamba publications, newdelhi.
- [3] Khurana. A. K. Comprehensive Ophthalmology. 4th ed. New Delhi. New Age International (P) Ltd.; Reprint 2010p. 314

- [4] Susruthasamhita, Uttaratantra, Sarvaghatharogavignaniyamadhaya, 6/26, ed. and translated by p v sharma, Chawkamba vishwa bharathi, Varanasi 2010; p. 137.
- [5] Acharya JT. Susrutha Samhita with Nibandha Sangraha Commentry of Dalhana 7th ed, Varanasi: Chaukamba Orientalia 2010. p597
- [6] Misra BS. Bhavaprakasha with Vidyothini Hindi Comentry, 11th ed. Varanasi Chowkamba Sanskrit Bhawan; 2010p455
- [7] Shatri. S. Madhavanidanam with Madhukosha Sanskrit Commentary. part2. Varanasi: Chaukamba Sanskrit Sansthan;2005. p. 268.
- [8] Tripathi H. Vangasena Samhita with Hari bodhini Hindi Commentary Reprint ed. Varanasi: Chaukamba Sanskrit Office Series: 2007. p175
- [9] Sastri L. Yogaratnakara with Vidyothini Commentry. Reprint ed. Varanasi: Chowkamba prakashan: 2014 p. 358
- [10] Sushruta Samhita Sutrasthana 42/9, Nibandha Sangraha Vyakhya Samvalita, commentary of Sri Dalhanacharya and Sri Gayadas, edited by Dr. Kevala Krishna Takral: Chaukamba Orantalia, Varanasi. 2014, Reprint 2020)
- [11] Dhanvantari nidhantu 99
- [12] SushrutaSamhitaSutrasthana 45/180Nibandha Sangraha Vyakhya Samvalita, commentary of Sri Dalhanacharya and Sri Gayadas, edited by Dr. Kevala Krishna Takral: Chaukamba Orantalia, Varanasi. 2014, Reprint 2020)
- [13] (J. H. Kim, J. H. Kim, W. H. Nam, K. Yi, D. g. Choi, J. Y. Hyon, et al. Oral alcohol administration disturbs tear film and ocular surface Ophthalmology, 119 (5) (2012), pp965-971
- [14] Jack J Kanski Clinical Optholmology 6th edition, published by Elsevier Limited, 2007
- [15] Sushrut Samhita Uttaratantra 8/5Nibandha Sangraha Vyakhya Samvalita, commentary of Sri Dalhanacharya and Sri Gayadas, edited by Dr. Kevala Krishna Takral: Chaukamba Orantalia, Varanasi. 2014, Reprint 2020)
- [16] Sushruta Samhita Uttaratantra 1/20Nibandha Sangraha Vyakhya Samvalita, commentary of Sri Dalhanacharya and Sri Gayadas, edited by Dr. Kevala Krishna Takral: Chaukamba Orantalia, Varanasi. 2014, Reprint 2020)

- [17] Sushruta samhita Uttarantra 1/21-22 Nibandha Sangraha Vyakhya Samvalita, commentary of Sri Dalhanacharya and Sri Gayadas, edited by Dr. Kevala Krishna Takral: Chaukamba Orantalia, Varanasi. 2014, Reprint 2020)
- [18] Sushru Samhita Uttarantra 1/23 22 Nibandha Sangraha Vyakhya Samvalita, commentary of Sri Dalhanacharya and Sri Gayadas, edited by Dr. Kevala Krishna Takral: Chaukamba Orantalia, Varanasi. 2014, Reprint 2020)
- [19] Susrutha samhita of Susrutha with Nibandhasangraha of Sri Dalhanacharya. 9th edition. Varanasi: Choukambha Orientalia; 2007. p. 605
- [20] Harishastri P. Astanga hrudayam of Vagbhata with Sarvangasundara commentary of Arunadatta, Varanasi: Chaukambha orientalia ; 1998. p. 829.
- [21] Jyotir. M. Astanga Samgraha with Sasilekha Commentary by Indu. edition reprint. Varanasi. Chaukhamba Sanskrit Sansthan; 2009. p. 719
- [22] Tripathi H. Vangasena Samhita with Hari bodhini Hindi Commentary Reprint ed. Varanasi: Chaukamba Sanskrit Office Series; 2007. p412
- [23] Shatri. S. Madhavanidanam with Madhukosha Sanskrit Commentary. part2. Varanasi: Chaukamba Sanskrit Sansthan; 2005. p. 158
- [24] Sharma S. Bhaishajya Ratnavali with English Traslation 2nd Edition. Varanasi Chowkabmba Orientalia: 2003p601
- [25] Sastri L. Yogaratnakara with Vydyothini Commentry. Reprit ed. Varanasi: Chowkamba prakashan: 2014 p. 358
- [26] Acharya JT. Susrutha Samhita with Nibandha Sangraha Commentry of Dalhana 7th ed, Varanasi: Chaukamba Orientalia 2010. p597
- [27] Harishastri P. Astanga hrudayam of Vagbhata with Sarvangasundara commentary of Arunadatta, Varanasi:Chaukambha orientalia ; 1998. p. 641
- [28] Acharya JT. Susrutha Samhita with Nibandha Sangraha Commentry of Dalhana 7th ed, Varanasi: Chaukamba Orientalia 2010. p852
- [29] Harishastri P. Astanga hrudayam of Vagbhata with Sarvangasundara commentary of Arunadatta, Varanasi: Chaukambha orientalia ; 1998. p. 641
- [30] Jyotir. M. Astanga Samgraha with Sasilekha Commentary by Indu. edition reprint. Varanasi. Chaukhamba Sanskrit Sansthan; 2009. p. 419
- [31] Harishastri P. Astanga hrudayam of Vagbhata with Sarvangasundara commentary of Arunadatta, Varanasi:Chaukambha orientalia ; 1998. p. 641
- [32] Acharya JT. Susrutha Samhita with Nibandha Sangraha Commentry of Dalhana 7th ed, Varanasi: Chaukamba Orientalia 2010. p851