

LITERARY REVIEW OF SHUSHKAAKSHIPAAKA [DRY EYE SYNDROME]***¹Dr. Neha Sunil Bhumkar, ²Dr. Swati Vishnu Sarwade**¹Post Graduate Scholar, Shalakyatantra, PMT's Ayurved College Shevgaon & Shri Eknath Rugnalaya Taluka-Shevgaon, Dist.-Ahilyanagar. 414502.²Prof. & HOD Shalakyatantra, PMT's Ayurved College Shevgaon & Shri Eknath Rugnalaya Taluka-Shevgaon, Dist.-Ahilyanagar. 414502.***Corresponding Author: Dr. Neha Sunil Bhumkar**Post Graduate Scholar, Shalakyatantra, PMT's Ayurved College Shevgaon & Shri Eknath Rugnalaya Taluka-Shevgaon, Dist.-Ahilyanagar. 414502. DOI: <https://doi.org/10.5281/zenodo.19330508>**How to cite this Article:** *¹Dr. Neha Sunil Bhumkar, ²Dr. Swati Vishnu Sarwade (2026). Literary Review Of Shushkaakshipaaka [Dry Eye Syndrome]. World Journal of Pharmaceutical and Medical Research, 12(4), 39-46.

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ABSTRACT

The eyes play a vital role in overall well-being, and their care has always been emphasized in Ayurvedic literature. One commonly described eye condition in Ayurveda is *Shushkaakshipaaka*, which closely matches Dry Eye Syndrome (DES) in modern medicine due to the similarity in symptoms. Individuals with this condition often report discomfort such as dryness, irritation, fluctuating blurred vision, and sensitivity to light. These symptoms can greatly impact daily life. Ayurvedic texts recommend specific treatments like *Tarpana*, *Seka*, *Aschotana*, and *Anjana*—therapies known for their cooling and nourishing effects. These approaches help balance aggravated *Vata* and *Pitta doshas*, improve tear film stability, and provide relief from dry eye symptoms. This paper highlights the Ayurvedic understanding of *Shushkaakshipaaka*, including its causes, diagnosis, and treatment options.

KEYWORDS: *Anjana, Aschotana, Dry eye syndrome, Seka, Shushkaashipaaka, Tarpana.***INTRODUCTION**

Tear secretion (*Ashru sravana*) plays a vital role in maintaining the health and function of the ocular surface. Any imbalance, whether in quantity or quality, can disrupt this delicate system and result in *Shushkaakshipaaka* (Dry Eye Syndrome), a condition characterized by discomfort and irritation in the eyes, which can eventually progress to corneal damage and potential vision loss. Classical Ayurvedic texts, including those by *Acharya Sushruta*^[1] and *Vagbhata*^[2] categorize *Shushkaakshipaaka* under *Sarvagata Netra Rogas* and consider it a treatable (*Saadhya*) ocular disorder. Common symptoms described include sensations such as grittiness (*Gharsha*), pricking pain (*Toda*), splitting pain (*Bheda*), sticky secretions (*Upadeha*), difficulty in blinking (*Krichronmeelana*), distortion (*Vikunana*), dryness, and roughness of the eyelids (*Rooksha Daaruna Vartma*).

Dry Eye Syndrome (DES), or keratoconjunctivitis sicca (KCS), is a prevalent condition resulting from insufficient tear film support for the ocular surface. It is a

multifactorial disorder triggered by factors such as environmental stress, infections, or genetics. Tear film instability and hyperosmolarity activate inflammatory pathways, leading to a self-perpetuating cycle of chronic inflammation mediated by the eye's immune response. Symptoms vary but commonly include irritation, fluctuating blurred vision, and sensitivity to light.

Various local, systemic, and environmental factors contribute to the development of Dry Eye Syndrome (DES). In Ayurveda, the imbalance of *Vata* and *Pitta/Rakta doshas* is considered a key cause of this condition. Unlike conventional treatments that mainly focus on symptom relief, Ayurveda offers a more holistic and systemic approach. Traditional Ayurvedic therapies, particularly those meant for *Vataja-Pittaja* disorders, aim to cool and rejuvenate the eyes, helping to restore tear film stability and ease symptoms. Classical treatments for *Shushkaakshipaaka* include *Tarpana*, *Seka*, *Aschotana*, and *Anjana*, all of which are known to support tear production and relieve dryness and irritation.

BACKGROUND AND OBJECTIVES

The eyes are vital for overall well-being, and Ayurvedic texts have long emphasized their care. *Shushkaakshipaaka*, described in Ayurveda, closely correlates with Dry Eye Syndrome (DES) in modern ophthalmology, as both conditions share similar symptoms such as dryness, irritation, fluctuating blurred vision, and photophobia. The objective of this paper is to highlight the Ayurvedic understanding of *Shushkaakshipaaka* and evaluate its relevance in the management of DES.

MATERIALS AND METHODS

Classical Ayurvedic references from *Sushruta Samhita*, *Astanga Hridaya*, *Madhavanidana*, and *Charaka Samhita* were reviewed, along with modern ophthalmological literature on DES. Key focus was given to *Nidana* (etiological factors), *Samprapti* (pathogenesis), and *Chikitsa* (treatment modalities). Emphasis was placed on Ayurvedic therapies such as *Tarpana*, *Seka*, *Aschotana*, and *Anjana*.

RESULTS

Ayurveda attributes *Shushkaakshipaaka* to vitiation of *Vata* and *Pitta/Rakta doshas*, aggravated by improper

visual practices, aging, and environmental factors. Classical therapies, particularly *Netra Kriyakalpa* procedures, demonstrated potential in balancing *doshas*, improving tear film stability, and reducing symptoms of ocular dryness. Modern parallels indicate that these treatments may provide anti-inflammatory, lubricating, and rejuvenating effects for DES management.

Disease review

Shushkaakshipaaka is one among the *Sarvagata Netraroga* mentioned by *Acharyas* under *Saadhya Vyadhi*.

Paribhasha^[3]

“*Shushkena Akshipakena Upahatam Akshihi*”

Acharya Madhukosha explains *Shushkaakshipaaka* as *Paka* (Inflammation) of *Netra* which develops as a result of *Shushkata* (*Adravata*) leading to *Netra Upahata*.

Nidana

Acharyas have described *Hetu* of all *Netra Rogas* in general.

Table 1: Showing the Netraroga Nidana according to various Acharyas.

SN	Nidana	Su	BP	MN	VS	YR
1.	<i>Ushnabitaptasyaj alepraveshat</i>	+	+	+	+	+
2.	<i>Durekshana</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>Shirobhighata</i>	+	+	+	+	+
9.	<i>Vega Vinigraha</i>	+	+	+	+	+
10.	<i>Atisweda</i>	+	+	+	+	+
11.	<i>Dhumanisevana</i>	+	+	+	+	+
12.	<i>Chardivighata</i>	+	+	+	+	+
13.	<i>Bashpa-Graha</i>	+	+	+	+	+
14.	<i>Sukshmanireekshana</i>	+	+	+	+	+
15.	<i>Atidravannapanat</i>	-	-	+	+	+
16.	<i>Atimadyapanat</i>	-	-	+	+	+
17.	<i>Rituviparyaya</i>	-	-	+	+	+
18.	<i>Ati-Sheegra-Yanaat</i>	-	+	-	-	-
19.	<i>Abhishyanda</i>	+	-	-	-	-

Vishesha Nidana^[4]

In the case of *Shushkaakshipaaka* (Dry Eye Syndrome), the specific causes (*Vishesha Nidana*) can be linked to improper use of the senses (*Asatmendriyartha Samyoga*), intellectual errors (*Prajnaparadha*), and the effects of time and age (*Parinama*), particularly affecting the eye (*Chakshurendriya*).

Asatmendriyartha Samyoga

These improper interactions can occur by accident, due to unavoidable situations, or even deliberately. Each of

these inappropriate contacts can harm not only the specific sense organ involved but also affect the mind and body, leading to various health issues. Examples for such abnormal contacts applicable to *Chakshurendriya* are.

Atiyoga (Excessive)

Looking at extremely bright lights or objects for extended periods—like the sun, television, or continuously staring at a screen without blinking—can strain the eyes and contribute to eye-related issues.

Heenayoga

Staying in very low light or complete darkness, or trying to see in dim lighting without adequate visibility, leads to improper use of the eyes and can cause strain or eye problems over time.

Mithyayoga

Focusing on objects that are too close or too far, reading small text on screens, looking at bright or shiny objects,

and being in an environment with poor visual hygiene all strain the eyes. Viewing from less than six inches away or at an awkward angle, as well as watching computer or TV screens improperly, are all examples of incorrect use (*Mithyayoga*) of the eyes (*Chakshurendriya*), which can lead to vision problems.

Table 2: Showing Doshas involved in Shushkaakshipaaka according to various Acharyas.

Doshas involved	Samhita
Vata	Sushrut Samhita and Ashtang Sangraha
Vata and Pitta	Ashtang Hridaya
Vata and Rakta	Karala
Raktaja	Madhav Nidan and Bhav Prakash

Samprapti

Samanya Samprapti^[5]: *Samanya Samprapti* of *Netraroga* can be considered.

Vishesha Samprapti: Due to the continued exposure to causative factors (*Nidana Sevana*), the vitiation of *Vata* and *Pitta doshas* occurs. These aggravated *doshas* travel through the upward-moving channels (*Urdhwa Sira*) and

accumulate in various parts of the eye such as the eyelids (*Vartma*), joints (*Sandhi*), sclera (*Shukla Mandala*), cornea (*Krishna Mandala*), and visual center (*Drushti Mandala*), affecting the entire eye (*Sarvagata*). This leads to the development of a condition known as *Shushkaakshipaaka*.

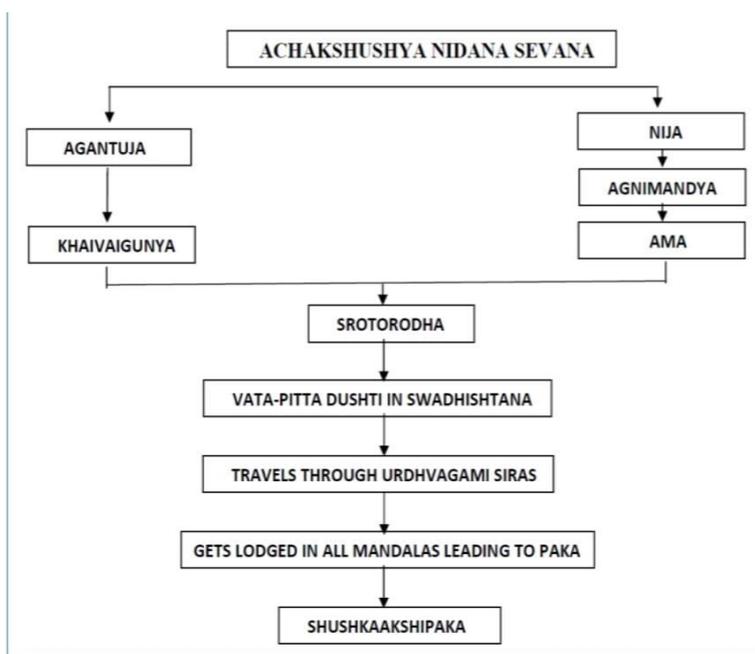


Image 1: Samprapti of Shushkaakshipaaka.

Table 3: Samprapthi Ghatakas of Shushkaakshipaaka.

Dosha	Vata-Pitta and Rakta
Dushya	Rasa-Rakta
Agni	Mandagni
Srotas	Rasa-Raktavaha srotas
Srotodushti	Sanga
Rogamarga	Madhyama
Adhistana	All Netramandalas

Purvarupa^[6]

Purvarupa refers to the early signs or symptoms that appear before the actual disease develops. These are the

initial changes felt by the person, indicating the beginning of an illness.

Table 4: Showing the *Samanya Purvarupa* of *Netrarogas*.

<i>Avilata</i>	Blurred vision
<i>Sa Samrambham</i>	Angry look
<i>Ashru</i>	Watering
<i>Kandu</i>	Itching
<i>Upadeha</i>	Coating
<i>Guruta</i>	Heaviness
<i>Usha</i>	Burning sensation
<i>Toda</i>	Pricking pain
<i>Raga</i>	Reddish discoloration
<i>Vartmakosha Sula</i>	Painful lids
<i>Vartmakosha Sukapurnabha</i>	Foreign body sensation in lids
<i>Kriyaswakshiyathapura</i>	Reduced movements like blinking

Some of the *Purvarupa*, or early symptoms, are also seen in the initial stages of *Shushkaakshipaaka* (Dry Eye Syndrome). These include eye strain and tiredness (*Avilata*), a feeling of something in the eye or unusual discomfort (*Sasamrambha*), itching caused by strain (*Kandu*), heaviness or fatigue in the eyes (*Guru*), a burning sensation (*Usha*), eye pain (*Toda*), pain in the eyelids (*Sashulamvartmakoshaishu*), and a constant feeling like a foreign object is present in the eye

(*Sukapurnabham*). These symptoms can be considered as early indicators of *Shushkaakshipaaka*.

Lakshana

Shushkaakshipaaka is marked by excessive eyelid closure and dryness, making it difficult to move the lids. It is often accompanied by blurred vision and a burning feeling in the eyes.

Table 5: Showing the *Lakshanas* of *Shushkaakshipaaka* by different *Acharyas*.

<i>Lakshana</i>	S.S	AH	AS	VS	MN	YR	BR
<i>Garsha</i>	-	+	+	-	-	-	-
<i>Toda</i>	-	+	+	-	-	-	-
<i>Rukshavartmakshi</i>	+	+	+	+	+	+	+
<i>Darunavartmakshi</i>	+	+	+	+	-	+	+
<i>Vikunana</i>	-	+	+	-	+	+	-
<i>Vishushkata</i>	-	+	+	-	-	-	-
<i>Sheethechha</i>	-	+	+	-	-	-	-
<i>Sulapaka</i>	-	+	+	-	-	-	-
<i>Daha</i>	-	-	-	+	+	+	+
<i>Aviladarshanam</i>	+	-	-	+	+	+	+
<i>Krichronmeelana</i>	-	+	+	-	+	-	-
<i>Vilokanam</i>	+	-	-	+	-	-	+
<i>Upadeha</i>	-	+	+	-	-	-	-

Upashaya

It refers to medicines, foods, and activities that bring comfort and relief to the patient. In this condition, there may be a preference for cold (*Sheethechha*)^[7], where washing the eyes with cold water helps in feeling better.

Anupashaya

All the *Nidanas* can be considered as *Anupashaya* for *Shushkaakshipaaka*.

Sadhyasadhya

Sarvagata Aushadha Sadhya Vyadhi.^[8]

Chikitsa

Shushkaakshipaaka is treated in a manner similar to *Vataja Abhishyanda*, using *Ghrita* processed with *Kulira Mamsa Rasa*.^[9] *Seka* with *Ksheera* and *Saindhava* is recommended^[10], along with *Ashotana* using *Darvi Kwatha*, *Prapaundarika Kwatha*, *Manjishta Kwatha*, *Mridweeka Kwatha*, or *Chandanadi Kwatha*.^[11] *Nasya Karma* may be performed with *Anu Taila* or *Sarivadi Taila*. *Ashotana* and *Putapaka* prepared with *Snigdha* and *Jeevaneeyagana Dravya Samsiddha Ghrita* are beneficial. *Anjana* can be made from *Masi* obtained by burning hair dipped in *ghee* through *Antardhuma Karma*.^[12] *Churnanjana* prepared from *Manjishta*, *Triphala*, *Katankata*, *Loha Bhasma*, and *Srotonjana* can be applied, while *Pindanjana* can be made by mixing

equal parts of *Tamra, Raja, Sahachara Pushpa, Pundarika, Madhuka, Kalanusari, and Sariva* with *Aja-Dugdha. Sneha Anjana* is prepared from *Anupa Mamsa Vasa* combined with powders of *Shunti* and *Saindhava*. Additionally, *Basti Karma* with *Ghrita Manda, Madhuka, and Shatavari* is especially indicated for managing *Shushkaakshipaaka*.^[13]

Disease Review - Modern Science

Dry Eye Syndrome^[14]

Dry eye syndrome is a condition where the tear film is disturbed, either due to low tear production or rapid tear evaporation. This leads to discomfort in the eyes, vision-related problems, and sometimes damage to the surface of the eye.

Etiology of Dry Eye Syndrome

- 1. Epitheliopathies.
- 2. Due to deficiency in tear film component.
- 3. Due to Impaired eye lid function.

Due to deficiency in tear film component

- 1. Impaired eyelid functions.

Seen in

- Lagophthalmos, Ectropion .
- Bell’s palsy, Exposure keratitis
- Symblepharon, Pterygium etc.

2. Aqueous tear deficiency: (Keratoconjunctivitis sicca.)

Seen in conditions like

- Congenital alacrimia

- Paralytic hyosecretion
- Primary and secondary Sjogren’s syndrome
- Idiopathic hyosecretion

3. Lipid deficiency abnormalities: It has only been seen in some cases of congenital absence of meibomian glands Common in patients with chronic blepharitis and chronic meibomitis.

4. Mucin deficiency dry eye: Occurs when goblet cells are damaged, as in Vitamin A deficiency (Xerophthalmia). In cases of Conjunctival scarring diseases Such as Trachoma, chemical Burns, Radiations etc.

Pathogenesis

The eyes’ surface and tear-producing glands work together as a single system. When this system is affected by disease or dysfunction, it leads to an unstable tear film that is not maintained properly, causing eye irritation and possible damage to the surface layer of the eye. Such problems can arise due to aging, reduced supportive factors like androgen hormones, systemic inflammatory conditions such as Sjögren syndrome or rheumatoid arthritis, eye diseases like herpes simplex keratitis, or surgeries such as LASIK that affect the sensory nerves of the eye. They can also occur from systemic illnesses or medications that interfere with the nerves responsible for stimulating tear production. Reduced tear secretion and clearance triggers inflammation on the eye’s surface, involving various soluble and cellular inflammatory components.

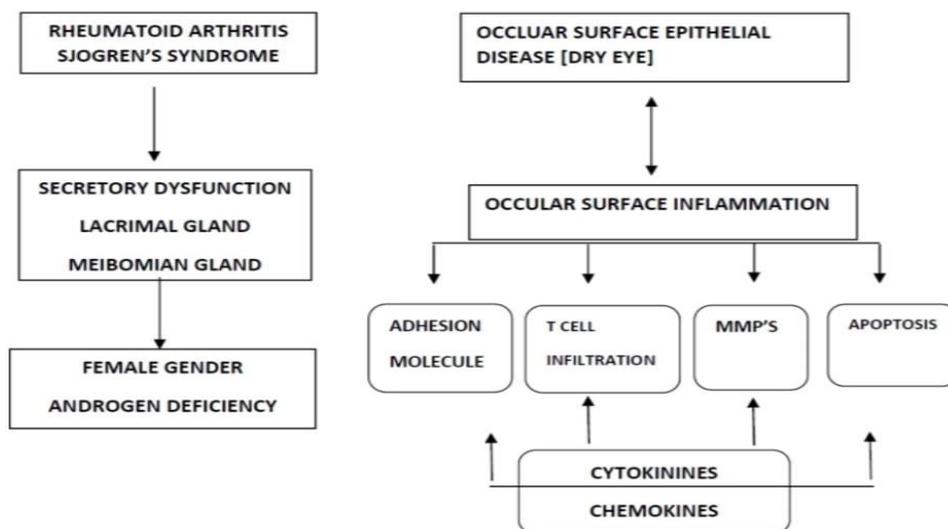


Image 2: Showing the pathogenesis of Dry Eye.

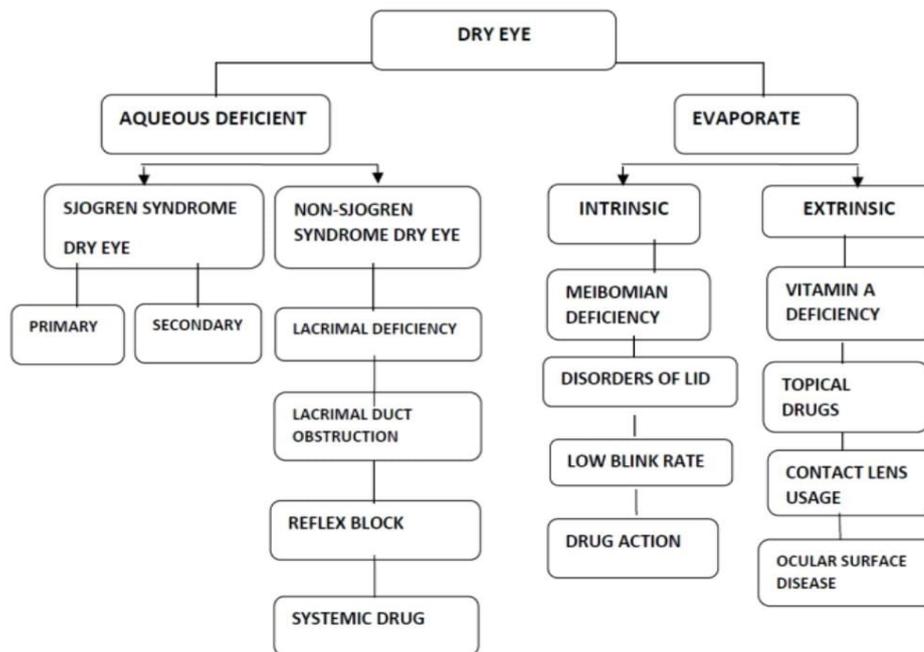


Image 3: Showing the classification of Dry Eye.

Clinical Features

Symptoms

- Feeling of dryness
- Irritation
- Itching
- Foreign body (sandy) sensation
- Chronically sore eyes
- Non-specific ocular discomfort

Signs

- Conjunctiva may show redness and mild keratinization
- Posterior blepharitis and meibomian gland dysfunction

Tear Film

In a healthy eye, when the tear film starts to break down, the mucin layer may mix with lipid but is quickly cleared away. In dry eye conditions, however, this lipid-contaminated mucin builds up in the tear film, forming particles and debris that shift with each blink. Additionally, in cases of meibomian gland dysfunction, frothy deposits can appear in the tear film or along the eyelid margins.

Cornea

- Punctate epithelial erosions on the cornea that show staining with fluorescein
- In severe dry eye, mucus filaments covered with epithelium may attach to the corneal surface at one end.

Complications

- Epithelial breakdown, melting, perforation, and bacterial keratitis.
- Peripheral superficial corneal neovascularization.

Diagnosis

Tear Film Tests

1. Tear film break-up (BUT)

Tear Break-Up Time (TBUT) is the time between a complete blink and the first appearance of a randomly placed dry spot on the cornea. It is measured by placing a drop of fluorescein in the eye and observing under cobalt-blue light using a slit lamp. TBUT reflects the adequacy of the tear film's mucin layer. A normal TBUT ranges from 15 to 35 seconds, while values below 10 seconds indicate an unstable tear film.

2. Schirmer's test

The Schirmer test is used to evaluate aqueous tear production by measuring how much a special strip of filter paper, 5 mm wide and 35 mm long, becomes wet. It can be performed with topical anaesthesia (Schirmer 2) or without it (Schirmer 1). For the test, the paper is folded 5 mm from one end and placed at the junction between the middle and outer third of the lower eyelid. The patient then keeps their eyes gently closed. Wetting of less than 10 mm in 5 minutes without anaesthesia, or less than 6 mm with anaesthesia, is considered abnormal.

3. Rose Bengal Staining Method

Rose Bengal is a dye that binds to dead or damaged epithelial cells with a lost or altered mucous layer. It also highlights corneal filaments and plaques, which can be seen more clearly with the help of a red-free filter. The

dye can be applied as a 1% solution or using a moistened impregnated strip.

Other Tests

- Tear film osmolarity
- Lactoferrin test
- Phenol red thread test
- Tear meniscometry
- Impression cytology

Management of Dry Eye^[15]

Dry eye syndrome has no permanent cure, and in some cases, it may recur throughout life. However, various treatments can help manage and reduce symptoms. The choice of treatment depends on the underlying cause, whether it is reduced tear production, rapid tear evaporation, or another related condition.

Conservative Management

- Lubricant eye treatments – Drops, gels, and ointments are commonly used for mild to moderate dry eye to keep the eyes moist.
- Oily tear eye drops – Contain ingredients like synthetic guar gums or liposomal sprays to restore the oily layer of the tear film and reduce evaporation.
- Eye ointments – Provide overnight lubrication and prevent tear evaporation while sleeping, especially if the eyes do not fully close.
- Anti-inflammatory treatments – Used to reduce inflammation in and around the eyes in long-term dry eye cases.
- Corticosteroid eye drops and ointments – Powerful anti-inflammatory medicines prescribed for severe dry eye.
- Cyclosporine eye drops – Suppress immune system activity to help manage dry eye.
- Oral tetracyclines – Low-dose antibiotics used for their anti-inflammatory effect, typically for at least 3–4 months or longer.

Surgical Management

Punctal Occlusion

Punctal occlusion is a procedure in which small devices called punctal plugs are used to block the tear ducts. This prevents tears from draining away, helping the eyes stay moist. The main purpose is to reduce the loss of naturally produced tears.

Salivary Gland Auto transplantation

Salivary gland auto-transplantation is a rare procedure, typically considered only when all other treatment options for dry eye have been unsuccessful.

CONCLUSION

The eye is a precious sense organ, and vision should be preserved throughout life. For a person without sight, day and night are the same, and the beauty of the world holds little value, regardless of wealth. Therefore, protecting eyesight is essential. While modern

ophthalmology has made great progress, it still has certain limitations. *Ayurveda*, the ancient system of medicine, offers valuable guidance for both prevention and treatment. Local therapies like *Snehapana*, *Tarpana*, *Putapaka*, *Nasya*, and *Anjana (Netra Kriyakalpa)* have shown excellent results when used appropriately. In *Ayurveda*, dry eye is not seen merely as a surface disorder but as a manifestation of imbalances in metabolism and tissue health. Tears (*Ashru*) are considered byproducts of *Rasa*, *Meda*, and *Majja Dhatus*, and treating dry eye requires restoring balance in these tissues. A systemic and holistic approach that addresses *Shushkaakshipaaka (Sarvagata Vata-Pitta or Raktaja Netra Roga)* along with local treatments can effectively manage the condition and correct the underlying imbalance.

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