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PREVENTION AND CURE OF OCULAR DISORDERS THROUGH AYURVEDA: A REVIEW ARTICLE

N. S. Abegunasekara^{1*}, Dr. Neha Sharma², Dr. Anjali Sharma² and Dr. Bhumika Rudani²

¹Faculty of Indigenous Medicine, Gampaha Wickramarachchi University of Indigenous Medicine.

²MD Scholar, Department of Rachana Sharir, National Institute of Ayurveda Deemed To Be University (De-Novo) Jaipur, Rajasthan, India.

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*Corresponding Author N. S. Abegunasekara

Faculty of Indigenous

Medicine, Gampaha

Wickramarachchi University
of Indigenous Medicine.

ABSTRACT

Ayurveda has described eleven Indriya's, five Gyanendriya, five Karmendriya and one Ubhyendri, among them eye comes under Gyanendriya and in modern literatures it comes under sense organs. It is one of most important sense organ which is very much essential for social and intellectual development of a person. Many diseases of eye may occur due to defective life style changes particularly in busy modern life. As per the WHO statistics global blindness due to eye diseases is 37 million, due to refractive errors it is 8 million. Ayurveda found to describe vividly about ocular health, especially in Sushruta Samhita a wide description is available regarding eye diseases and its management. Acharya Sushruta has given much importance to eye as

it is evident from the fact that the *Uttara tantra* of *Sushruta Samhita* starts with description of eye disorders and out of which intial 19 chapters are devoted only to eye diseases and their management. Hence to keep eye free from illness various aspects described in Ayurveda like Concept of *Ritucharya*, *Dincharya*, *Anjana* (collyrium), *Aschyotan* (eye drop), *Snana*(bath), *Padabhyanga* (foot massage with oil), *Nasya* (nasal application of drugs), *Abhyanga* (oil massage), various eye exercises and different yogic *kriyas*, *rasayana* etc. can be very helpful in this perspective.

KEYWORDS: Eye, Dincharya, Ritucharya, Chakshushya, Rasayana, yoga.

INTRODUCTION

Eye is a precious sense organ of our body and in present scenario changing lifestyle has resulted in various eye disorders and brought distress in routine life, so preservation of its health and prevention it from diseases has become essential. There is a lot of description about eye health and hygiene in Ayurvedic texts. *Acharaya sushruta* describes factors that are responsible for eye diseases.

उष्णाभितप्तस्य जलप्रवेशाहूरेक्षणात् स्वप्नविपर्ययाच्च | प्रसक्तसंरोदनकोपशोकक्लेशाभिघातादतिभैथुनाच्च | शुक्तारनालाम्लकुलत्थमाषनिषेवणाद्धेगविनिग्रहाच्च | स्वेदादशो धूमनिषेवणाच्च छर्दैर्विघाताद्धमनातियोगात् | बाष्पग्रहात् सूक्ष्मनिरीक्षणाच्च नेत्रे विकारान् जनयन्ति दोषाः|| ^{|||}

Now a day's ocular health has been challenged because of consequence of faulty lifestyle. In present scenario also Habit of smoking cigarette, tobacco chewing, consumption of alcohol, taking high calorie diet and junk food, excessive stress, prolong screen time on computer, continuous exposure to bright light etc. are some examples which may cause disturbance in ocular health. *Dincharya* (daily regimen), *Ritucharya*(seasonal regimen) and specific therapies like *rasayana* therapy, *sadvritta*- palan and *kriya kalpa* described in Ayurveda are useful to restore eye health and proper vision. *Kriyakalpa*'s are.

तर्पणं पुरपाकश्च सेक आश्च्योतनाञ्जने | तत्र तत्रोपदिष्टानि तेषां व्यासं निबोध मे 🏽 🕮

Tarpan – In this procedure the medicated ghee is kept in eye for a specific time by special arrangement. It gives nourishment to the eyes and cures *vata* and *pittaja* netra rogas. Used in the management of progressive refrective errors, computer vision syndrome, tiredness of eyes and retinal disease.

Putapaka: The procedure is same as *tarpana* but the medicine extracted from herbs by *putapaka* procedure, usually carried after *tarpana*. Indication for rejuvenation of eyes.

Seka: In this procedure medicine is poured on closed eye continuously from four inches height for specific time according to *doshas*. It is indicated in acute inflammatory conditions.

Aschotana: The medicated drops are put into eye from the height of two inches on open eye. It is indicated in infection and allergic condition of conjunctiva and cornea.

Anjana (Collyrium) - It is a procedure in which medicine is applied to the inner surface of the eye lid with the help of an Anjana Shalaka (glass or metal rod). Rasanjana or darvi rasa

kriya can be mixed with honey and applied in the eye for kapha sodhana (as eye is pitta predominant in nature and should be protected from kapha dosha). Acharaya charak mentioned daily application of Souveeranjan as it is best simple ophthalmic medication to prevent ocular disorder. Mode of action of Anjana can be attributed as—by dissolving the accumulated vitiated kapha dosha and drains it out and maintaining netra srotas intact by dilating and increasing blood flow in the blood vessels.

Dinacharya (Daily Regimen) – All the acharayas of ayurveda described widely regarding Dinacharya and pathya-apathya in relation to maintain eye health. Charak stated that Dincharaya should be started with Anjana (eye salve) while sushruta advised netraprakshalan (Eye wash): Washing eyes with decoction of Lodhra or with Amalaka (Emblica officinalis) swarasa (juice) after getting up from bed in the morning.

Shiroabhyanga- It is the finest therapy for *vata dosha* because it involves applying an oily mixture on the head. Abhyanga serves as Dristiprasadana, nourishing all sense organs. [3] Pranavayu is the vata dosha confined to the eye, and pranavayu's seat is in the head (murdha). When oil is applied to the head, it has a therapeutic effect that reaches all the way to the brain. The optic nerve is a nerve that connects the eyes to brain. The straight extension of the brain stem, which ends in Retina. As a consequence of the oil being applied to the skull, especially in the moordha area, works on the dristipatalam. As a result, every day Abhyanga with oils according to a person's "prakritti" can be a crucial preventive measure. [4]

Nasya- Various medications are infused into the nasal cavity to nourish the *urdhva jatrugata* region of the body. The nasal cavity and the head are anatomically connected. As a result, it is said to be the natural path to the *Shiras* (head) Because of anatomical constraints the drug that is given through the nasal cavity reaches every part of the head. The "*Sringatak Marma*" (cavernous sinus), which is the seat of all the *chakras*, is especially strengthened. Eye, ear, nose, and tongue centres^[5] To summarise, *Nasya* is always active on the *srotas*. It cleans the *Shirosrothas* (channels). As a result, there is an accumulation of vitiated *kapha* in the body. *Srothas* of the eye can be avoided by using *Pratimarsh Nasya* on a daily basis. ^[6]

Snanam- It is a Sanskrit word that means (Bath). *Snana* is one of the major parameters given under the *Dincharya* category. *Snana* keeps the temperature mechanism and blood circulation running smoothly. Body baths should be done with Hot water, while head baths should be

done with cold water. If you use hot water to wash your hair, Bathing can have a negative impact on the hair and eyes, resulting in a variety of disorders.^[7-8]

Mukhalepa- *Mukhalepa* is the application of medications to the face in the form of a poultice. Three varieties of *Mukhalepa* are mentioned *Doshahara*, *Vishahara*, and *Varnakara*. The facial artery, facial nerve, and other face structures. The trigeminal nerve runs over the cheek, with branches leading to the eyes. As a result, the medicinal. The eye is also affected by the *mukhalepa*'s value.^[9]

Gandoosha and Kawal - Both of these methods are used to gargle medicinal decoctions. The only difference is in the dosage of the medicine and the techniques used to administer it. The mouth of Gandusha is completely filled with therapeutic decoctions. There isn't enough room to rinse your mouth. The pharmaceutical decoction is only retained in the mouth for a short period of time before being spit out.

Kawal- The amount of decoction in this variety is minimal. The medicinal decoction is really gargled. Diseases of the ear, mouth, throat, and eyes, among other things, are indications for both *Kawal* and *Gandush*. Along the cheek runs the ophthalmic branch of the facial artery. Due to the pressure impact of the liquid drug, medicine may be absorbed through the mucous membrane. The eye's structure can be nourished, stimulated, emptied, or drained.

Padabhyanga, Padaprakshalan, and Padatra Dharan are three types of Padabhyanga: According to Vangbhatta, there are two siras in the centre of the foot that reach the brain, hence foot care is crucial because the foot is linked to the eye. The nerve endings in the foot are extremely sensitive, and activation of the nerve endings in the foot causes sympathetic and parasympathetic supply to reflect in the eye. Padavyanga, padaprakshalana (washing the foot) and padatra dharana (wearing footwear) have chaksyushya effects, therefore foot should be maintained clean, abhyanga and footwear should be used to avoid physical damage to the foot (improves vision). [11-12]

Use of umbrella: Use of umbrella protect the eyes from sun, heat, dust and smoke and it is *chakshyushya*. [13,14]

Eye Health and *Trayopasthambha* (Life Tripods): The three life tripods, *Ahara, Nidra*, and *Brahmacharya*, are extremely important because they sustain and maintain life if properly

followed. *Ahara* (diet) has an important function in maintaining eye health. Incompatible foods (*Virudha Ahara*) can cause vision issues or even blindness.^[15]

Eye Health and *Nidra* (**Sleep**): A healthy adult requires 6-8 hours of sleep on average. The mind and body both can equally gain from sleep. For the eyes, a healthy night sleep is essential. The eye is completely at rest while sleeping and maintains its functional capacity. In the context of *netra roga, Sushruta* mentions "*Swapnaviparyayat*" (insufficient sleep) as an etiological factor. ^{16]} As a result, sleep deprivation causes a variety of visual problems, including floppy eyelid syndrome, dry eye, asthenopia symptoms, impaired vision, and colour perception changes. When the natural need to sleep is suppressed, *Akshigauravam* develops (heaviness and fatigue in eyes).

Vegadharana (Suppression of Natural Urges): In the context of etiological factors for eye disorders, Acharya Sushruta has listed Vegbinigrahat (suppression of natural urges), specifically Baspagrahat (suppression of tears), while Acharya Charka has mentioned Nidra (sleep) and Baspa vega (Suppression of tear urge) as etiological factors. People in the current period have a tendency to repress natural urges for a variety of reasons, including a busy work schedule, frequent travel, and a variety of other factors.

Eye Diseases and Rasayana Therapy: According to Sarangadhra, vision starts to deteriorate in the sixth decade of life as a result of regular ageing. [17] According to contemporary medicine, age-related macular degeneration (ARMD) and age-related cataracts are diseases that develop as age increases and as a result of oxidative stress in their daily lives. To avoid these issues or delay the progression of ocular degeneration, Ayurveda recommends Chaksyushya Rasayan therapy, in which a person who eats a balanced diet and takes Triphala powder with honey and ghee every night is certain to be free of eye diseases. [18-19-20-21]

Beneficial (*Pathya*) food items for eye: According to *Ayurveda*, certain foods are beneficial (*Pathya*) for the eyes. Many classics described *Chakshushya* foods and medicines that can be used on a regular basis. *Lohitasali* (Red rice), *Yava* (Barley), *Mudga* (Green gramme), *Varyakulattha* (Dolichos biflorus), *Jeevanti* (Leptadenia reticulata), *Punernava* (Boerhavia procumbens), *Patola* (Trichosanthes dioeca), *Kumari* (Aloe vera), Chandan, Karpura, Draksha (Diamond). Old grains such as barley (Yava), wheat (Godhuma), brown rice (Shali & Shashtika), kodo millet (Kodrava), and green gramme (Mugdha) with ghee are helpful for

eye sight, according to Ashtanga Hridaya. Vagbhata also mentions wild animal meat, vegetables, pomegranate, sugar, saindhava (rock salt), plums (Drksha), and rain water as Chakshushya. According to Bhavaprakasha, brown rice (Shali), green gramme (Mugdha), barley (Yava), flesh of wild animals, especially birds, amaranth varieties (Vatsuka, Tanduliyaka), snake gourd (Patola), spiny gourd (Karkatoka), bitter gourd (Karavella), flat beans (Nishpava), and Vrtaka's flesh are the food substances that should be consumed on. All of the foods stated above should be cooked in ghee, according to *Bhavamishra*. All sweet and bitter-tasting foods can be utilised as Chakshushya dravaya. Yogaratnakara also mentioned both sweet and bitter-tasting foods are good for the eyes. According to the Susruta Samhita, a person who regularly consumes old ghee, asparagus (Shatavari), snake gourd (Patola), green gramme (Mugdha), Indian gooseberry (malaki), and barley (Yava) should not be concerned about the fatal disease *Timira* (visual impairments). Sunishannaka, bitter gourd (Karavella), amaranth species (*Tanduliya and Vatsuka*), brinjal (Vartaku), Kair (Karira), drumsticks (Shigru), radish (Mlaka), bird and wild animal flesh (Jangala mansha) are also good for *Timira*. Susruta went on to say that meal preparations of the same items, such as malaki and *Shatavari*, can be made into Pysa (milk rice). *Timira* is relieved by boiling barley with a large amount of Thriphala decoction and a large amount of ghee. Timira (immature cataract) can also gain benefit from old ghee preserved in an iron pot.

Apathya Ahara for Healthy Eye: Amla rasa (sour), Lavana (salt), Kshara (alkali), katu rasatmak ahara, Masha (horse gramme), Kalingaka patrasaka, Phanita, Tambula (Piper betel).

Rasayana Therapy and Eye Health: All materia medica and therapy procedures that generate doshic balance (somatic and psychological) are equally applicable to the treatment of the eye, including a set of materia medica termed "Chakshushya rasayana" by our ancient sages. The Chakshushya class of drugs has a specific effect on the eye and visual system. Triphala is one such combination that can repair dosha imbalances and restore normalcy, as well as having a specific vision-promoting effect. Individually, the components that make up triphala are quite powerful; however, synergy increases the efficacy and healing quotient tremendously when they are mixed right. [22,23]

EYE EXERCISES: Asthenopic symptoms including such as headache, eye aches, and heaviness in the eyes, disorders of the head and other visual structures can be relieved with eye exercises. There are several activities that are recommended, such as nine gaze exercise,

convergence and divergence exercise, sunbathing early in the morning daily (about for 5 minutes), coming to shade and rinsing the eyes with a diluted solution of *triphala kashaya* using eye cups and palming, and so on.

ASANAS/ YOGIC KRIYAS: Certain yogasanas, such as 1. Matasyasanaas, can be practised on a regular basis to maintain ocular health and function. Sarvangasana is the second asana. Surya Namaskar is the third yoga asana. Shavasana is the fourth pose. 5. Trataka (sit in a lotus position and focus your gaze on a small object for as long as possible without blinking) and so on. Neti kriya is the sixth step in the yogasana's.

CONCLUSION

Disrupted lifestyle exposures have been proven to be closely linked to eye illnesses. Their causes are the outcome of metabolic alterations driven by growth and ageing processes. Regular and proper eye exercise, *yoga* practise, following *Dincharya* and *Ritucharya*, *Anjana*, *Nasya*, healthy food, and other preventive methods described in the literature, as well as certain positive life style modifications, all aid in the prevention of various eye disorders. *Pathya-Apathya* in relation to ocular health play a critical part in protecting the eyes against disease.

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