



ROLE OF AYURVEDA IN MANAGEMENT OF LIFESTYLE DISORDERS OF NETRA

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ABSTRACT

Advanced lifestyle and environmental changes have a serious impact on eye health. It has been reported that prevalence is suffering from lifestyle-based eye problems. Example Chronic smoking cataract (64%) followed by Dry eye (55%), ARMD (19%), Glaucoma (9%), and graves ophthalmopathy (1.7%). Usage of electronic gadgets, smoking, alcohol, workplace environment, and pollution are the causative factors for various eye-related problems. Though these conditions are preventable by avoiding causative factor, this kind of lifestyle is inevitable in the present competitive world. Smoking is consistently associated with nuclear cataracts. Computer vision Syndrome is one such syndrome that is characterized by headache, neck pain, eye strain, dry eye, loss of vision, burning eyes, light sensitivity, and distorted vision. Heavy alcohol consumption is related to an increased risk of age-related macular degeneration, diabetic retinopathy. There is an association between alcohol consumption and glaucoma (increased intraocular pressure). Hence prevention of ocular disorders is essential. Ayurveda has given prime importance to the eyes among all sense organs. Various Netra rakshasa upaya have been explained in Ayurveda classics viz dinacharya, ritucharya, sadvritaa, yoga, and pathyapathya. Acharya Sushruta in Uttartantra explained in detail about the initial symptoms (Purvaroop Avastha) and their treatment modalities. Nidana-Parivarjana and Various Kriyakalpa are also important for the maintenance of good ocular health. This work is a review of preventive and management protocols of lifestyle-induced ocular disorders through Ayurveda.

Keywords: Eye diseases, Netraroga, *kriyakalpa*, Preventive Ophthalmology, Lifestyle disorders

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INTRODUCTION

Ayurveda is an ancient system of medicine that aims not only to cure the disease but also to prevent humanity from all categories of physical, mental, intellectual, and spiritual miseries. Among all the sense organs eyes are very important because vision is crucial for the social and intellectual development of a person. It is rightly quoted by *Vagbhata acharya*, stating the importance of eyes "Once the vision is lost, the different kind of things of the world will all become one kind only that of darkness". Hence in *ayurvedic samhitas* a wide description is available pertaining to eye diseases and their management compared to other sense organs. One has to take the necessary efforts to take care of the methods for the prevention of eye diseases. A life style has been linked to many human illnesses and much has been emphasized about life style disorders like cardiovascular disorders, diabetes mellitus, kidney diseases, and their preventive methods. But unlikely the preventive aspects of ocular health and eye diseases have not been given due importance in daily life. Vision is also affected as a consequence of a faulty lifestyle. Smoking cigarettes, tobacco, alcohol consumption, rich fat diet, and junk foods, chronic stress, prolong exposure to bright light, working on a computer for a long time, etc are few examples that

exert damage to the eye. Clinical conditions which may occur due to faulty life style are Age-related to macular degeneration (ARMD), Diabetic/ Hypertensive retinopathy, computer vision syndrome, and many more. For preventing these types of eye diseases and for maintaining ocular health many measures have been described in the texts of *Ayurveda*, in the form of *Dinacharya* (daily regimen), *Ritucharya* (seasonal regimen), *sadvritta*, *swasthavritta*, *chakshusya rasayana* drugs, and specific therapies like *kriya kalpa*.

AIMS

1. To study the role of common lifestyle disorders in *netra*.
2. To manage the lifestyle disorders of *netra*.

Associating lifestyle practices with eye diseases

Smoking: Smoking can lead to vision loss and many studies show smoking increases the risk of age-related macular degeneration, cataracts, glaucoma, diabetic retinopathy, and Dry Eye Syndrome.²

Age-Related Macular Degeneration (AMD)

One way to reduce the risk of developing AMD is by NOT smoking. Smokers are three to four times more likely to develop AMD than non-smokers. Non-smokers living with smokers almost double their risk of developing AMD.

Cataracts

Heavy smokers (15 cigarettes/day or more) have up to three times the risk of cataracts as non-smokers.

Glaucoma

There is a strong link between smoking and high blood pressure, cataracts, and diabetes, all of which are risk factors for glaucoma.

Diabetic Retinopathy

Smoking can increase your chances of getting diabetes. It can also make managing diabetes more difficult for those who already have it. Complications of diabetes made worse by smoking include retinopathy, heart disease, stroke, vascular disease, kidney disease, nerve damage, foot problems, and many others.

Dry Eye Syndrome

Dry Eye Syndrome is more than twice as likely to impact smokers as non-smokers.

Heavy alcohol consumption:

Alcohol consumption is found associated with cataracts, although the level of intake usually is not specified.³ The investigators however found a modest protective effect of moderate drinking for any cataract. The data suggest a possible benefit to the lens by avoidance of heavy drinking. Alcohol is known to affect the liver, which converts beta-carotene into vitamin A which is essential for good vision. Intoxication also creates short-term problems including night blindness, double vision, and accommodation paralysis (inability of eyes to

bring both near and far images into focus).^[4 5 6]

Effects of gadgets on the eye:

Effects of gadgets on the eye can be seen as Redness, Dryness, Blurring vision, Headache, Neck, shoulder, and back pain due to poor posture. The above symptoms are found in various life style disorders like Digital eye strain, Dry eye syndrome, Computer vision syndrome, etc. Many individuals experience eye discomfort and vision problems when viewing digital screens for extended periods. The level of discomfort appears to increase with the amount of digital screen use. HEV – High- energy visible/blue or violet light is produced from the computer monitors and can penetrate the macular pigment and cause more rapid retinal changes. These changes not only damage the retina structurally but can also decrease visual acuity. The type of damage depends on the wavelength, frequency, and exposure time. Ultraviolet rays may increase the risk of cataracts, AMD, and other eye disorders. The main sources of UV rays are sun rays, welders flash and also video display terminals like Computer monitors, Tablets, Smartphones. computer leads to dry eye Normally a person blinks 12-18 times/min but while working on computer blink rate reduces to 5-6 times/min because of continuous staring at the screen. Blinking is critically important for spreading the tears to

form an even film on the eye surface which keeps the cornea and conjunctiva moist and also oxygen to the corneal epithelium.⁷

Diet: A rich fat diet harms the vision by clogging up blood vessels in the retina and the choroid which can reduce the flow of oxygen and nutrients necessary for vision; it ultimately leads to Atherosclerosis and limits the amount of oxygen and nutrient supply. Especially affected are the choroid blood vessels, which supply the retinal pigment epithelium (RPE). The RPE cells subsequently get damaged and die off. The photoreceptors, which are dependent on the RPE for their nourishment, eventually die off, resulting in vision loss. In Beaver Dam eye study, dietary intake of saturated fat was found to be associated with an 80% increased risk of AMD.^{8,9]}

Environmental exposure: Exposure like dust, sunlight, exposure to toxins or chemicals, exposure to hot, sandy, and dusty weather. For the above causes diseases like conjunctivitis and pterygium¹⁰

MANAGEMENT

Kriya kalpa: *kriya kalpa* is a *bahirparimarjana chikitsa* and has several advantages over oral administration.

- *Kriyakalpa* is not digested by it and possibly rectify accumulated dosas.
- The topical drugs can reach there and achieve higher bio-availability.

- The tissue contact time of the drugs can be controlled in *kriyakalpa*.

The procedures like *nasya*, *anjana*, *tarpana*, and all other *kriya kalpas* are aimed at improving visual efficiency *netrabala*. Because loss of eyesight will immerse a person into the world of darkness.

Yoga and Eye Health

Yoga especially *Shat Kriya's* like *Trataka* and *Neti Kriya* may help to improve vision and maintain eye health. *Hathayoga Pradipika* and *Gheranda Samhita* clearly mention that accepting procedures like *Trataka* and *Neti Kriya* helps to improve vision and prevent the diseases of the eye.

Susrutha Samhita has laid great stress on a daily regimen which is conducive to eyesight. Some of them are as follows:

- Importance of *srotanjana*
- *Shira snana* with *sheeta jala*
- Eyewash
- Collyrium to the eyes makes the *taraka* clear
- *Pada prakshalana / padabhyanga*
- *Jala neti*
- *Chatra dharana*
- Use of *triphal*
- Palming

According to *vagbhata* diet and regimen for better eye sight:

- *Triphala*

- *Rakta mokshana*
- Relaxation of mind
- *Anjana*
- *Nasya*
- Nutrition with the flesh of birds
- Worshipping the legs (foot care)
- Intake of *ghrita*
- Avoiding all *ahita darshana*
- Avoiding the illuminating, moving, and very minute objects viewing for long duration.

Chaksushya varga

- According to *susrutha* Milk and milk products
- According to *vanga sena triphala, ghrita, madhu, yava, satavari, mudga.*
- *Rasa shastra* texts have considered following as *chaksusya* like *Swarna, abraha, tamra, vanga, yasada, loha, Swarna makshika, tutta, kharpara, kasisa, srotonjana, Swarna gairika, kapardika, kati.*
- According to *yoga ratna* explained *pancha sakas*.¹¹

DISCUSSION

Present-day lifestyle choices i.e., low activity level, sedentary lifestyle, and progressive weight gain also contribute significantly to the risk of developing metabolic syndrome, which consequently have an ill effect on the most

vital organ Eye. The research data suggests that metabolic syndrome is associated with microvascular changes in the retina. And the finding reflects, in part, the associations of individual syndrome components with retinal microvascular abnormalities. On keen observation, we find a close similarity between the etiologies of eye diseases and the lifestyle choices of the present era. The causative factors for eye diseases explained in the classical texts exactly fit the present-day lifestyle practices which in turn generate eye diseases. To name a few- By food habits - *Shukta aranaala, amla*(alcoholic beverages), *kulattha, maasa* (excessive use of horse gram and black gram), *ushna, kshara, katu rasa* predominant diet resembles the spicy and junk foods, by Activities *Swapna viparyayaat* (night shifts), *atimadyapaana* (alcoholism), *dhumanishevana* (smoking), *atidravannapaana* (cold drinks), *pratata ekshana atideepta darshana, ati sameepa darshana* (spending long hours in front of the computer) and *Manasika- Kopa, shoka, klesha* (stress-induced agony). Prevention of Diseases is possible by Lifestyle regulation and adopting *Ayurvedic* principles. *Kriya kalpas* have a major role as a remedy for Lifestyle induced eye diseases. *Kriya Kalpas* such as *Aschyotana, Anjana, and Nasya*, etc are both preventions as well as treatment modalities. *Aschyotana* is a basic

therapeutic intervention that is beneficial in a wide variety of Eye diseases. [12 13 14]

CONCLUSIONS

Various lifestyle exposures are found closely associated with eye diseases. Their causes are pursued to be the result of metabolic changes influenced by processes of growth and aging. The prevention modalities advocated in *Ayurveda* such as *Aschyotana*, *Anjana*, *Nasya*, *Netra panchamruta*, etc, and usage of *Chaksushya varga* along with positive lifestyle modifications help considerably reducing the impact of ocular diseases in the general population.

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