

## Understanding the *Hetu* (Causes) of Eye Disorders in Ayurveda

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### Abstract

The importance of eyes to human beings need not be emphasized. Eyes provide sight, without which life would lose most of its meanings. But at the same time eyes are constantly exposed to the external environment. Almost everyone in the world overworks their eyes due to which several eye problems occur. Ancient Ayurvedic *Acharyas* identified dozens of *Hetu* (causes) that can cause eye disorders. A disease is caused due to specific causative factor followed by the pathogenesis with the manifestation of signs and symptoms and if ignored the complication is the next outcome. Without the knowledge of causative factors the implication of treatment is not possible. *Hetu* gives knowledge of the disease, so understanding the *Hetu* of eye diseases has its prime importance in preventing, diagnosing and treating the eye diseases.

### Keywords

*Hetu, Causes, Eye disorders*



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## INTRODUCTION

Lifestyle of a human being in 21<sup>st</sup> century is major factor thought to influence susceptibility to many health problems which is affecting not only our body & mind but also many eye disorders. Due to modernization in lifestyle, changes in work, recreation & diet, environmental factors, there has been a tremendous pandemic of eye diseases. An approach of *Ayurveda* is holistic to prevent many disorders through *Ayurveda* based *Dincharya* (daily regimen), *Ritucharya* (seasonal and environmental regimen) & healthy lifestyle.

Among all the sense organs, eye is most important sense organ. One should always take care of eyes throughout the life because in absence of sight all the wealth is meaningless. Without sight there is no difference between day and night. The eye problems may be due to the faulty use of eyes in modern life style.

Ancient *Acharyas* have explained many causative factors which are responsible for eye disorders. Their oetiopathogenecity should be understood for diagnosis, *nidana* (*hetu*) *parivarjana* (avoidance of causative factors) and management of ophthalmic disorders.

Various oetiological factors mentioned by *Acharya Sushruta* in ancient *Ayurvedic* texts and their correlation with modern life style are mentioned below.

### 1. *UshnabhitaptasyaJalapraveshat*

(Immersing in cold water, immediately after getting exposed to the heat or glare of sun.)<sup>1,2</sup>:- Sudden change in temperature may damage the autonomous balance of vessels and lead to the weakness of the ocular tissues. It may disturb lacrimation, accommodation, pupillary and fixation reflexes. In present era, drinking cold water immediately after exposure to heat, entering into cool/ Air Conditioned compartment soon after exposure to heat or sun, pouring cold water on head after exposure to hot environment.

2. *Durekshanat* (Constant gazing for a longer time at far objects.)<sup>1,2</sup>:- Looking at very distant objects regularly for a longer time leads to strain on muscles of eye. Constant gaze for long duration may cause tear film instability due to wide palpebral aperture. Present era - Drivers, shooters, archery, working with telescopes. *Vataprakopa* may cause diseases e.g. hypermetropia, asthenopia and/dry eye syndrome.



**3. Swapanaviparyayat** (Abnormal sleeping habits)<sup>1,2</sup> :- Abnormal sleeping habits like sleeping during day time (*diva swapna*) and alert in night (*nisi jagarana*). Sleeping during day time causes *Kaphaprakopa* leading *Snigdhatata* (moistness) and keeping awake at night causes *Vata* and *pitta prakopa* leading to *Rukshatha* (dryness). Suppressing the sleep causes dryness in eyes. In present era night shifts, sleeping late night, night out parties are some examples of abnormal sleeping habits. The vitiation of *doshas* may cause hyperaemia of conjunctiva, dry eye syndrome, reflux lacrimation, styes, periorbital puffiness or nystagmus.

**4. Prasaktasamrodana** (Continuous weeping for longer duration)<sup>1,2</sup> :- Continuous weeping will cause swollen eyes. There are nutrients and enzyme killing bacteria in our tears. Continuous weeping will cause excessive secretions of tear fluids which washes away all the nutrients and bacteriostatic enzymes of conjunctival sac. Due to which conjunctival sac and lacrimal apparatus loses the strength of fighting against foreign body and diseases. Autonomous neural balance gets disturbed and may cause diseases of lacrimal

apparatus, hyperaemia/congestion of conjunctiva and photophobia.

**5. Kopa and Shoka** (Anger and grief)<sup>1,2</sup>:- These mental conditions (emotional factors) will impact the equilibrium of *doshas* as anger increases *Pitta* and grief increases *vayu*. Anger causes engorgement of vessels of head, face and eyes causing excessive strain on intra and periorbital structures and haemorrhage can occur. Anxiety attacks may cause fight and flight pupillary dilation, nutritional depletion of tissues and stress induced eye pain.

**6. Klesha**(Stress, strain)<sup>1,2</sup>:-Stress, strain, suffering, trouble both physical and mental exhaustion leading to eye diseases. Blepharospasms may occur as a result of increased stress. The spasms cause the eyelid to twitch uncontrollably. As a result of this condition, a person will often experience poor depth perception and decreased vision. Stress causes pupils to dilate. Dilated pupils allow more light to enter in eyes need to react quicker, potentially leading to light sensitivity, headache and asthenopia. Stress can also cause you to tighten your facial muscles, constricting blood flow and causing blurry vision and more headaches.



7. **Abhighaata**(Trauma)<sup>1,2</sup>:-There are many different form of trauma varying in severity and nature from minor injury to medical emergencies. Minute irritating foreign bodies, lacerations, blunt injuries, contusion or perforating injuries cause a great loss to the eye. If proper eye care is not taken blindness follows. Not only direct eye injury affects eye, but also peripheral structures of eye like skull base fracture leads to retrobulbar and/or intra ocular haemorrhages, cranium injury may lead to optic nerve trauma and atrophy. Chemical injuries may be caused by various acids, alkalis and corrosive substances. Thermal and electrical injuries may cause various disorders leading to blindness. *Amurtaabhighata* is also mentioned in *Ayurvedic* texts indicating actinic rays, eclipse and radiation are harmful to sight. Corneal abrasions, corneal laceration, retinal lesions/detachment, cataract, dislocation of lens, blurred vision, double vision etc. or complete blindness may result by *abhighata*.

8. **Atimaitihuna**(Excessive sex)<sup>1,2</sup>:- Excessive indulgence in sex results in reduction of body tissues (*Dhatukshaya*). Sense organs derive their nutrition from body tissue and eye will be deprived of this nourishment. Infective eye diseases due

decreased immune response may occur, ophthalmic manifestations of sexually transmitted diseases may be caused.

9. **ShuktharanalaAmlaNishevana**(Alcoholic beverages)<sup>1,2</sup>:- *Suktha* and *Aranala* are produced by fermentation having *tikshna*, *ushnavyavayi*, *vikasi* and *amla* properties with intoxicating action. Most of sour foods are harmful to eyes. Many people are addicted to alcohol, which may cause toxic optic atrophy. Bakery and other items which are prepared from fermentation may cause *pitta prakopa* to cause ophthalmic diseases.

10. **Kulatthamashanishhevana**(Excessive use of horse gram and black gram)<sup>1,2</sup>:- The horse gram has properties like *laghu*, *vidahi*, *kashaya rasa*, *katupaka* and *ushnavirya*. Excessive use of horse gram reduces body tissue strength leading to *vataj* eye diseases. The black gram has properties like *madhura rasa*, *madhuravipaka*, *guru* and *snigdhas*. Excessive use of black gram increase *kapha* leading to eye diseases.

11. **Vega vinigraha** (Suppression of natural urges)<sup>1,2</sup>:- Suppression of yawning, tears, hiccups, sneeze and hunger all these leads to disease of eye. Suppression of urges cause *vataprakopa*, leading to weakness of tissues and strain to eyes. Prolonged office



duties, class room, meetings and even TV programs are responsible nowadays for suppression of natural urges.

**12. Atisweda** (Excessive sudation to eye)<sup>1,2</sup>:- Only warm compresses (mild fomentation) is advised in the eye disease. In diseases like cataract fomentation is contraindicated. A very hot fomentation may damage to the eye structure. Working in bakeries, factories, working in coal mines, cooking etc. cause *pitta prakopa* which may cause hyperaemia, photophthalmia, and cataract.

**13. Dhoomanishevanat** (Excessive exposure to smoke)<sup>1,2</sup>:- Excessive exposure to smoke, noxious gases and other pollutants can cause eye diseases. Smoking, air pollution, carbon mono/dioxide from vehicles, factories cause *vata* and *pitta dushti* responsible for dry eye, age related macular degeneration, Cataract, macular degeneration, uveitis, glaucoma.

**14. Chardhirvighatat** (Suppressing of the urge to vomit)<sup>1,2</sup>:- Suppressing the urge of vomiting or nausea causes strain to the eyes caused by *vataprakopa* leading to various *vataj* eye disease like eye pain, sub conjunctival haemorrhages etc.

**15. Vamanatiyoga t**(Excessive *vamana* therapy)<sup>1,2</sup> :- Excessive *vamana* therapy

causes strain to protrusion of eye balls by valsalva. Sudden rise in intra abdominal, intra thoracic and jugular pressure cause rise in intra orbital and intraocular pressure and may lead to retinal detachment, sub conjunctival haemorrhages.

**16. Bashpagrahat** (Suppressing tears during grief)<sup>1,2</sup> :- Vitiating *vayu* obstructs the *doshas* to produce diseases in *asruvahasrotas* (lacrimal apparatus) caused by *kapha* and *vata* e.g. epiphora, blocked tear duct.

**17. Sukshmanireekshanat**(Watching minute objects for long duration)<sup>1,2</sup> :- This causes strain to ciliary muscles, lens and extra-ocular muscles leading to eye strain, asthenopia, headache, blurred vision, watering in eyes and early need of presbyopic addition. Nowadays working with computers, reading on video display screens, goldsmith jobs etc. are some of those.

## DISCUSSION

Ancient *Acharyas* discussed many causative factors related to various eye diseases. In Ayurveda prevention of disease is more important than curative aspects of disease. Understanding the concept of *hetu* can lead to healthy and balanced life. Again finding cause is more important as rather than

finding treatment because if the causative factors are known, their avoidance can help to avoid the disease and to control the growth of the disease. Thus knowledge of cause is having preventive as well as curative perspective. In Ayurveda it is explained that *nidana (hetu) parivarjana* (avoidance of causative factors) is the best measure to be disease free<sup>3</sup>.

## CONCLUSION

As the *hetu* gives the knowledge of causative factors of disease in our routine life, so to protect our eyes from different diseases, it is very important to understand the *hetu* (causative factors) of eye disease. Understanding oetiological factors, mentioned in *Ayurveda*, can promote to avoid diseases, control disease early, preventing complications and live healthy in modern era.

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