

Netra Roga Nidana: A Critical Review

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Abstract

Ayurveda defines Indriyas as sense organs that acquire knowledge for the Atma. According to Acharya Charaka, Indriyas are instruments that distinguish between living and non-living things. Because the Panch Mahabhuta (five elements) contributed to the composition of Indriyas, different sense organs function differently. Indriyas exist in minute form within their Indriya adhishtanas (anatomical organs) and perform the function of perceiving senses and communicating that perception to the brain or body organs for further stimulation. According to modern science, the eyes, ears, nose, tongue, and skin are sensory organs that perceive vision, sound, smell, taste, and touch, respectively. The Doshic preponderance and Mahabhuta found in Indriyas are related to their distinct physiological functions, and the vitiation of linked Doshas can alter the functioning of Indriyas. Nayana is Pradhana among all Indriyas. It needs to be safeguarded with extra thought and care. Major eye problems are estimated to affect 27 million people worldwide, with 7 million in India. The majority of ocular problems are triggered through poor eye care in contemporary culture. If the primary causes are not addressed, this may give rise to more severe disease. Stopping the causative element is a treatment itself. Ayurvedic diagnosis relies on two important elements, namely Roga Pariksha and Rogi Pariksha. Among these, Roga pariksha provides us with extensive information on a disease, from its aetiology through its manifestation. The five fundamental parts of Roga Pariksha are called Nidana Panchakas and are Purvarupa, Rupa, Samprapti, and Upashaya. Nidana—the most important component—not only provides awareness of causative causes but also aids in treatment by avoiding them. Since it is better to prevent eye diseases than to treat them, here is an attempt to evaluate Netraroga Nidanas (causative elements of eye disorders) to present living style and make it easier for everyone to comprehend and adjust in lifestyle.

Keywords: netra roga, nidana panchaka, nidana, eye care

INTRODUCTION

Indriyas refers to the sense organ responsible for sensory perception and anticipatory reaction. These are considered as tools for acquiring sensory or motor knowledge. There are five sense organs, five (types of) matters of sense organs, five (different) sites of sense organs, five sense objects and five (types of) sensory perceptions, thus said in the context of sense organs [1]. Mind transcends the sense organs. It is termed as *sattva*, while some others call it as *chetas*. Its action is dependent on its objects and accomplishments of the self that is, *Atman* or *Atma*. It is responsible for the actions of the sense organs [2]. In a single person, mind seems to be numerous because of variations in its own objects, objects of sense organs, its analytical activity related to quickly moving and making its contact with different sensory organs and also due to its inherent connection with the qualities of *rajas*, *tamas* and *sattva*; but in reality, it is one. Mind being

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one, there is no contact with more than one sense organ at a time and therefore there is no simultaneous activity of all the sense organs [3]. The sages describe the mind according to the predominance of the *guna* (quality or predisposition), which is predominantly and repeatedly represented in the mind of a person. The sense organs are capable of perceiving objects only when they are associated with the mind [4]. The five sense organs are visual, auditory, olfactory, gustatory, and the tactile. The five types of matter of sense organs are *Akasha*, *Vayu*, *Tejas*, *Apa*, and *Prithvi*. The five different sites of sense organs are eyes, ears, nose, tongue, and skin. The five sense objects are *shabda* (sound), *sparsa* (touch), *rupa* (vision), *rasa* (taste), and *gandha* (smell). The five types of sensory perceptions are visual perception etc. They are produced in conjunction with the senses, sense objects, mind and the self (*atman*). They are momentary and determinative. The five *pentads* are thus described [5].

Acharya Charaka defines *Chakshu* as *Indriya* (sensual faculty) situated in both the eyeballs which is responsible for vision [6]. *Netra* is made up of the *Pancha Mahabhuta*, the five fundamental components, just like every other organ in the body. Sushruta has explicitly stated *Panchamahabhuta's* contribution to the *Indriyas* [7].

Acharya Vagbhatta emphasised the importance of *Netra Raksha*, saying, "Day and night are similar for a blind person, and all the wealth in the world appears to be of no use." As a result, in order to live a fulfilling life, it is essential to protect one's eyes [8].

The human eye is the body's most vital and intricate organ. The human eye performs similar activities as cameras. The eyes should be protected with the appropriate measures. The human senses serve as our primary interface with the environment. We perceive up to 80% of all impressions through sight. When all other sensations, such as taste and smell, fail, it is our eyes that keep us safe. So appropriate eye care and eye wear are essential at all stages of life in order to avoid curable and preventable blindness, which is a part of the worldwide programme 'Vision 2020,' which begins with the avoidance of causative causes [9].

Acharyas have explained a common *Nidanas* for all eye disease. *Nidana* is a causal factor; eliminating the causative component is a treatment in itself. If these causative factors are not fixed, significant disease may result. It is simple to understand the relevant *Dosha* if the underlying causes are thoroughly understood. Understanding the severity of the related causes will aid in choosing the appropriate level of treatment. It is simple to analyse disease and clarify its impacts if causative factors are understood to present lifestyle.

Thus, an attempt was made to examine all *Netraroga Nidanas* in the present lifestyle. The present work explained each *Nidana* in detail.

Acharya Shushrut mentioned *Netraroga Nidanas* briefly in *Utartantra Aupdravik Adhyay* [10]. Commentator Dalhana mentioned other causative factors such as *Avakshirashayana*, *Uchrithashayana*, *Jwarabhita*, *Rajodhum Nishhevanat*, *Atishidhrayana*, *Rutuna Viparyaya*, *Ati drava-Annapanam*, and *Ati Madhyapanam* [11]. Bhavprakasha mentioned *Rajodhum Nishhevanat*, *Atishidhrayana*, *Rutuna Viparyaya*, and *Shiro Abhitapa* [12]. Yogaratnakar mentioned *Drav-anna-panati Nishevana* and *Ati Madhyapanam* [13, 14] (Table 1).

Ushnabitaptasya Jalapraveshath (Immersing in Cold Water Immediately After Getting Exposed to Heat/Sun)

Sudden changes in body temperature induce eye disorders. When the body is too hot, the arteries dilate and the amount of fluids increases; when the body's temperature drops abruptly, the vessels constrict and the vasculature is harmed. This creates circulation irregularities, which most likely influence the nutritional mechanism.

Table 1. *Netra Roga Nidana* according to Acharya Shushrut.

S.N.	<i>Nidana</i>
1	<i>Ushnabitaptasya Jalapraveshath</i>
2	<i>Doorekshanath</i>
3	<i>Swapana Viparyaya</i>
4	<i>Prasakthasamrodhana</i>
5	<i>Kopa</i>
6	<i>Shoka</i>
7	<i>Klesha</i>
8	<i>Abhighaatha</i>
9	<i>Atimaitihuna</i>
10	<i>Shuktha-Aranal-Aamla Nishevana</i>
11	<i>Kulattha- Masha Nishevana</i>
12	<i>Vega Vinigraha</i>
13	<i>Atisweda</i>
14	<i>Dhooma Nishevanat</i>
15	<i>Chardhir Vighatat</i>
16	<i>Vaman Atiyogat</i>
17	<i>Bhashpa grahat</i>
18	<i>Sukshma Nireekshanat</i>

In the modern day, it can be defined as bathing or drinking cold water shortly after being exposed to heat, entering an air-conditioned compartment soon after being exposed to heat/Sun, or pouring cold water on one's head after playing outdoor games. This vitiates *Pitta Dosha* and leads to eye diseases such as *Abishyanda* (conjunctivitis), Photo keratitis.

***Doorekshanath* (Looking at Very Distant Objects Regularly for a Longer Time)**

The eye can visualise things up to a certain distance without effort, but staring at very far objects for an extended period of time causes eye strain on the ciliary muscles, resulting in distortion of the lens's accommodative capacity and, eventually, eye problems.

In the present era it can be taken as professions such as astronomers working with their telescopes, scientists in the observatories, personnel from military at border/railway merchant/navy to see signals, drivers, shooters, archery with the target spot.

Vata Dosha gets vitiated and leads to eye diseases such as hypermetropia, presbyopia.

***Swapana Viparyaya* (Abnormal Sleeping Habits)**

Alteration of the pattern of sleep (*Diva Swapa / Ratri Jagarana*). *Diva swapa* (sleeping during daytime) leads to vitiation of *Kapha Dosha* leading to *Snigdatha* (moistness) and *Ratri jagarana* (night arousal) leads to vitiation of *Vata* and *Pitta Dosha* leading to *Rukshatha* (dryness).

In the present day, it might be interpreted as night shifts, sleeping late at night, and night out parties, which vitiates *Tridosha* and causes eye diseases such as stye, periorbital puffiness, nystagmus, dry eye, *netrasrava* (epiphora), and hyperaemia.

***Prasakthasamrodhana* (Continuous Weeping for Longer Duration / for Several Days)**

Weeping stimulates the lacrimal gland, causing it to secrete more fluid, which washes away the nutrients and bacteriostatic activity of the conjunctival sac, causing the conjunctival sac and lacrimal apparatus to lose their resistance to infections. This vitiates *Vata Dosha* and leads to eye diseases such as Xerosis and lacrimal apparatus diseases.

Kopa and Shoka (Excessive anger and grief):

Anger and sadness are *Dharaniya Manasika Vega* (emotional variables that need to be managed). These *Manasika Vegas* (emotional elements) will have an impact on *dosha* equilibrium, since *Kopa* promotes *Pitta* and *Soka* enhances *Vata*.

During anxiety attacks, our bodies experience a burst of adrenaline, which causes dilation of pupils. When pupils dilate, blurriness occurs as a result of excessive light entering the eye. Eye diseases occurs due to vitiation of *Pitta* and *Vata Dosha* such as Sub conjunctival haemorrhage and *Vataja Netra Rogas*.

Klesha (Stress)

Stress, discomfort, and trouble vitiate both *Shareeraja* and *Manasaja doshas*. Physical and mental tiredness causes vitiation of *Vata Dosha*, resulting in *Vataja Netra rogas*.

Abhighaatha (Trauma)

Minor irritating injuries, contusions, and perforations cause significant eye loss. If proper eye care is not taken, blindness occurs immediately. Not only does eye injury affect the eye, but it also affects other structures. For example, a skull base fracture causes retrobulbar and retinal bleeding, whereas a cranial fracture causes retina and vitreous imbalance. In the present era, it can be taken as chemical injuries, occupational hazards and accidents. It may lead to vitiation of *Sarva Dosha* and causes disease such as Corneal abrasions, Corneal erosion, retinal detachment, lens dislocation, and a cataract.

Atimaitihuna: (Excessive Sexual Intercourse)

Excessive sexual intercourse causes *Dathukshaya* (depletion of bodily tissues), *Shukradathu Kshaya*, which leads to *Poorva Datu Kshaya*, vitiation of *Sarva Dosha*, and a lack of food for the eyes. It may cause diseases such as Sunken eyes, infective eye diseases, *Netraabishyanda*, cytomegalo virus retinitis, HIV.

Shuktha-Aranal-Aamla Nishevana (Alcoholic Beverages)

Excessive consumption of *Shukta* and *Arnala*, which are *Sandhana Dravyas* with opposing properties to *Ojas*, can lead to *Netra vikaras*. Similarly, *Amla Dravyas*, which are sour drugs, can vitiate *Pitta* and *Raktha Dosha* and cause diseases such as *Pothaki* (Trachoma), *Kumbheeka* (Chalazion), and cytomegalovirus retinitis.

Kulattha-Masha Nishevana (Excessive Use of Horse Gram and Black Gram)

Kulattha's qualities include *Laghu* (light), *Vidahi* (burning), *Kashaya rasa* (bitter taste), *Katupaka* (pungent), and *Ushna Veerya* (hot potency). Excessive use of *kulattha* causes *dathukshaya*, which leads to vitiation of *Tridosha* and causes *Tridoshaja Netra rogas*.

Masha possesses traits that are opposite to *Kulattha*, such as *Madhura rasa* (sweet taste), *Madhura vipaka*, *Guru* (heavy), and *Snigdha* (unctuous properties), which lead to *Kapha Vruddi* and *Kaphaja Netra rogas*. In the modern period, it can be defined as consuming foods such as *idly*, *Dosa*, and others in excess on a regular basis.

Vega Vinigraha (Suppression of Natural Urges)

Controlling vital urges such as passing urine or defecating stools (there are 13 such urges that should not be controlled according to *Ayurveda*) results in *Tridosha* vitiation, eye strain, and other *Tridoshaja Netra Vikaras*. In the present era, a person busy with the modern lifestyle that is, classroom, meetings, working under pressure may lead to suppression of natural urges.

Atisweda (Excessive Sudation to Eye)

Excessive fomentation or sudation of the eyes, *Swedana Karma* is prohibited; if necessary, *Mrudu Sweda* is recommended with caution. Its excessive use causes *Pittaja Raktaja* disorder and leads to *Pittaja abhishyanda* etc.

In the present era, this can be correlated with working in coal mines, cooking etc.

Dhooma Nishevanat (Excessive Exposure to Smoke)

Ayurveda and modern medicine both consider smoking to be damaging to the eyes. According to *Ayurveda*, smoking can vitiate *Pitta* and *Vata* by raising the *Tikshna*, *Ushna*, and *Ruksha Gunas*, resulting in cataracts, retinal degeneration, and uveitis.

In the present day, it includes smoking, carbon dioxide from automobiles, and manufacturing.

Chardhir Vighatat (Suppressing the Urge of Vomiting)

Suppressing the urge to vomit or nausea leads to *Vata Dosha*, which causes eye strain and lesions (*Kusta*).

Vaman Atiyogat (Excessive Vamana Therapy)

Indulging excessive *Vamana* therapy produces complication such as protrusion of eyeball (*Akshnor Vyavruthi*) and retinal or subconjunctival haemorrhages etc.

Bhashpa Grahat (Suppressing Tears During Grief)

Suppressing the tears, produces *Ashruja Udavartha* in which *Kapha* and *Vata Dosha* vitiated get obstructed in the *Ashru vaha srotas* and causes eye disease such as epiphora and blocked tear duct.

Sukshma Nireekshanat (Watching Minute Objects for Longer Duration)

Observing minute details on a frequent basis strains the ciliary muscles and lens, resulting in visual difficulties. Dry eye syndrome and accommodation issues are caused by a vitiated *Vata Dosha*.

In the present era, dry eye syndrome can be caused by working with computers, reading in dim light or for long time, pathology technicians, diamond cutter, wrist watch repairers, tailors, ladies doing embroidery work etc.

DISCUSSION

To understand the *Nidana* is critical in identifying and treating the condition since it provides knowledge of the ailment. We attempted to evaluate the *Netra roga nidanas* as given by Acharya Sushruta, although there are a few more *Nidanas* as explained by other authors. Following these *Nidanas* will not directly lead to disease; rather, it will provide prodromal symptoms first, followed by disease. If the above-mentioned *Nidana* is followed once or twice, it will not result in disease, but consuming any of the above-mentioned *Nidanas* for an extended period of time will. If a person continues to live the same lifestyle and does not modify it, they will get an illness associated to that particular practise, and if it is not treated, disease recurrence appears to be common.

CONCLUSION

Understanding the *Nidana* helps to determine *Dosha* vitiation, *Vyadhi Sadhya Asadhyata*, *Samprapti* analysis, and effective treatment planning. Our *Acharyas* have clearly declared "*Sanksepataha Kriyayoge Nidana Parivarjanam*" if the *Nidanas* are not treated and avoided. *Nidana* may function alone or in collaboration to induce *Dosha Prakopa*, which causes new disease, aggravates an existing disease, and stimulates *Doshagati*. A global action plan "2014–2019" is being developed by the World Health Organization (WHO) to serve as a blueprint for consolidating collective efforts aimed at achieving global eye health.

The primary goals include providing comprehensive integrated eye care services that address the principal causes of visual impairment and raising knowledge about proper eye care so that the prevalence of visual impairment can be minimised to some extent.

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