INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY HEALTH SCIENCES

ISSN: 2394 9406

"MYOPIA AND PRATHAM PATALGAT TIMIR: ANCIENT WISDOM MEETS MODERN VISION"

Dr.Kumbhar Bhagyashri Vishnu[1] Dr.Chavan Pravin Vitthal[2] Dr.Walvekar Sunil Sadashiv[3] Dr.Bapat Madhura Shardul[4]

1. P.G. Scholar,Dept of Shalakya Tantra.
2. Professor,Guide and HOD,Dept of Shalakya Tantra.
3. Associate Professor,Dept of Shalakya Tantra.
4. Assistant Professor,Dept of Shalakya Tantra.

Loknete Rajarambapu Patil ayurvedic Medical College,Hospital,P.G. Institute and Research Center, Uran-Islampur,Maharashtra

Corresponding Author: Email id : bhagyashrikumbhar1997@gmail.com

Abstract:

Shalakyatantra is one of the eight branches of Ayurveda,specifically dedicated to the diagnosis treatments and management of diseases related to the Shira [head],Karn [ears],Netra,[eyes],Nasa[nose]and Mukha [mouth and throat].It deals withboth preventive and therapeutics aspects of disorders affecting these organs and region.The eyes are often regarded as the most important of all senses.They are considered to the mirrors of the mind.our eyes plays role in 90% of our daily activities.Through them we see, learn, enjoy and navigate of life,making them indispensable.For those who are blind,the world during the day is as challenging as it is at night.Therefore, everyone should prioritise protecting their eyes throughout their life,regardless of their wealth.Ayurvedic classical text have referenced the eye and its diseases since the vedic and samhita periods,underscoring the eye's importance and methods for its protection.The Uttartantra of the Sushrut Samhita provides an extensive description of eye diseases across 20 dedicated chapters.

.Clinical manifestations associated wiyh visual asoociated with visual disturbances are exclusively observed in Drushtigat Roga.Therefore all the type of visual impairments can be regarded under the broad categary of Timir-Kach-Lingnash complex. Timira occurs tion due to affliction of the 4netra patalas,resulting in Pratham,Dwitiya,Tritiya,Chaturth Patalgat Timira,among these,The symptoms of Pratham Patalgat Timiraare described as "Avyaktani Swaroopani Sarvanyay Prapashati."The clinical features of timira [first and second] can be associated with the most common Refractive Error,which is a Myopia.Myopia is the condition of the eye where distant objects appear blurry while close objects can be seen clearly,also referred to as nearsightedness.The prevalence of myopia is 6.9%.

Key Words:, Shalakyatantra, Eye, Drishtigat Raga,Pratham patalgat Tmir,Refractive error, Myopia.

Introduction:

Ayurveda ,known as the "Veda of Ayu"or science of life,aim to maintain the well-being of the healthy and treat the illnessof diseased one.To achieve this objective,Ayurveda is divided into 8 parts knwon as "Ashtang Ayurveda".Shalakya Tantra is one of these 8 primary branches which also includes Kaychikitsa, Balachikitsa, Grahachikitsa, Shalyachikitsa, Shalakyacikitsa, Vishachikitsa, Rasayan, Vajikaran.halakya is branch of Ayurveda dealing with causes, pathology, symptoms, complication and treatment of diseases of organs above clavicle and collar bone and hence also known by the name "Urdhwang Chikitsa."Acharya Shushrut has explained 76 Netravyadhi. Timir is type of "Drushtigat Roga."which leads to disturbances in vision.The disease that occurs 4 Patalas of the eye is known as " Timir." Timira inflicts 4 patala causing Pratham ,Dwitiya, Tritiya, Chaturth Patalagat Timira . Ayurvedic texts, perticularly the concept of Pratham Patalgat Timir, offers valuable insights into understanding and managing visual impairment similar to myopia. Myopia is refractive eye condition where a person cannot see distant objects clearly.Myopia is also known as near-sightedness or short-sightedness.it is most common ,prevalent eye condition globally,with significant social,educational and economical implication.Myopia and uncorrected refractive errors are the

primary cause of blindness and vision impairment worldwide.This research delves into the ancient concept of Pratham Patalgat Timir and it's correlation with Myopia,bridging the gap between traditional Ayurvedic knowledge and contemporary ophthalmic practices.By combining ancient insights with modern advancements.

Aim

To explore the association between Pratham Patalgat Timir described in Ayurveda and Myoipa and to invesitigate how ancient wisdom can enhance modern approaches in vision care.

Objectives

1. Review literature to investigate the relationship between Pratham Patalgat Timir described in Ayurveda and Myopia.
2. Review existing literature to explore how ancient wisdom can complement and inform modern vision care practices.

Methods and Material

Ancient Ayurvedic texts (i.e. Shushrut Samhita, Charak Smhita,) modern ophtalmic literature.

Methodology

Performed in-depth literature review, integrating ancient Ayurvedic texts and modern ophthalmic literature,to investigate the correlation between Pratham Patalgat Timir and Myopia.

Review of Literature

- Description of Pratham Patalgat Timir in ancient Ayurvedic texts.
- Modern understanding of Myopia.

Concept of Patala

The term "PATALA"- "Avrutta Patalena Akshino"refers to thin layer of membrane-like structure covering the drushti bhaga,arranged in concentric layers."DRUSHTI" refers to "act of vision"itself.Functionally,it includes all refractive media of the eye ,retina,and the entire visual pathawayThus,condition in which pathology is located beyond the cornea in the visual pathway are categorized under "patalgat Roga".According to Shushruta, the eyeball consist of 5 Mandalas,6 Sandhis, 6 Patalas,among them 2 Vartma Patalas and 4 Akhi Patalas. Timir is a drishtigat roga that affects the inner 4 patalas of the eye.

name	Constituting factors	changes
1. 1st patala	Tejas +jala(tejojala Raktashrita-Dhalhan)	Changes in the axial length leads to Refractive error Myopia which is understood as timira with lakshnas of avyakta darshana threrefore leading to Pratham Patalgat Timira.
2. 2nd	Mamsa(pishit	Dwitiya Patalgat timira

patala a mamsashrita)	orlakshnas	mashika,mashaka,kesha,jaalkani etc, is seen when there is fluid collection or degenaration of vitreous.
3. 3rd patala (medoashrita)	Medas	Tritiya Patalgata Timira Lakshnas-adhaha sthite sameepastam,doorashte cha,uparisthitam,bahuda dwida cha pashvathi this leads to lennticular and corneal opacities
4. 4th patala	Ashti(asthvashrita)	Chaturth patala lakshmas sitabhasa ,Lingnasha.

The anatomical examination of patalas and symptoms of vitiated Doshas in these areas indicate that Timira represents diseases affecting both the anterior and posterior segments of eye,causing visual impairments ,resembling refractive errors like myopia.

Timir

Etymology The term "TIMIRA" originates from,'Tim'.Indicating either an increase of watery substance in the eye or loss of light perception,combined with the 'Uaddi' suffix 'Kirach' to form the term 'TIMIRA'.

Loss of light parception

- In Amarkosha,Timir is Defined as darkness.
- In Halayudhakosha, Timir means darkness whose enemy is sun.

Concept of Timira

Drishti is a seat of Timira. Timira is described as "Paramdarunvyadhi".According to Shushruta,Timira,Kacha,lingnasha are progressive stages of the disease Lingnasha.However,Vagbhatta considers Timira,kacha and Lingnasha as seprate clinical entities. Consequently there are six types of Timira, six types of Kacha, six types of Lingnasha according to Vgbhatta; while Shushruta considers six lingnasha only as disease.The clinical aspects of timira are based on the involvement of patalas and vitiation of doshas.

Pratha mPatal gata Timir Dosh dushti	When the Doshas are vitiated in the first patala,the only symptom produced is Avyakt Darshan.The patient cannot percieve the exact nature of objects,and there is a slighrt blurring of vision. Dalhana has described the first or outermost patala as "tejojalashrit".The term 'teja' refers to Alochak pitta,indicating that Siragat Rakta can be associated with Teja, "jala'implies Rasa Dhatu,Therefore,it can be inferred that the first patala serves as the primary sitefor Rasa and Rakta

	dhatus,which are responsible for providing nutrition to the eyes.Rasa provides nutritions to transparent structure,while Rakta provides nutition to the vuscular structure Pitta assists in the perception of visual objects and is involved in analyzing the Indriyartha(sense objects).It is the first medium or part of the eye that recieves light.Vata are considered prominant Doshas in this aspects of Drishti. The possible hypothetical pathogenesis may results from Nidansevana, where the vitiation of doshas induces the symptoms of Pratham Patalgat Timir.
Dwitiya Patalgata Timira Dosh-dushti	When doshas invade the second Patala ,vision becomes greatly disturbed. The person may percieve shapes of flies,mosquitoes,hairs,nets,circular flags,mirages,rings,different movements of stars,rain falling from sky,and darkness.They may percieve distant objects as if they are nearby objects as if they are far away due to visual disorders.Despite great efforts, they will be unable to see the eye (hole) of a needle.
Tritiya Patalgat Timira Dosh Dushti Lakshan	When the Doshas invade the third patala ,the person will see objects above but not those below. They percieve even large objects as if covered with cloth and see other's faces as though lacking ears,nose,and eyes .As the Doshas become more aggrevated,vision disorders also increase.If the Doshas are localized at the bottom ,nearby objects are not visible;if at the top,distant objects are not seen .When localized on the sides, objects on the sides are not visible ;when spred everywhere,objects appears combined .In the center ,one object may appear as two,two objects as three.When the Doshas are not localized but moving,one objects may appear as many.
Chaturth Patalgat Timira Dosh-dushti lakshan	When the Doshas invade the forth patala,they completely obstruct sight ,resulting in a condition called Lingnasha ,which is the loss of visual perception.Even in this severe disease ,when darkness envelops or when the disease is not profound ,the person may still be able to see the moon,sun,stars,lightning ,etc.in the sky ,along with open and bright

objects.This Lingnasha is also known as Nilika and Kacha.

Etiological factors

As per various classical texts, the following are the primary causes of Timira:

According to Acharya Madhava,all diseases stem from Mandagni,indicating a deficiency in digestive fire.Similarly,netra rogas are caused by a person;s weak agnibala.

According to Acharya Charaka,diseases are caused by Asathmendriyarth samyoga,pradnyaparadha,and parinama.

All diseases arise from the suppression or forced evacuation of natural urges (adharaneeya vegas).Vata is the primary aggrivated Doshas in such condition.Therefore,regulating these urges with appropriate food,drinks,and medication through anulomana (proper natural urges) plays asignificant role.

Acharya Charaka grouped the causes into three categories:misuse, overuse,and undruse of the senses based on their function and duration.

Overuse- excessive starting at an object

underuse- not looking at all.

Perverted use- seeing objects that are too close, too far ,frighting, fascinating, disliked,disgusting,deformed.or frightening.

General cause of eye diseases The general causes of eye diseases,which can also contribute to timira,include:

Hetus	Impact of Hetusevana
Ushnabitaptas yajalapravesh ath (Immediately immersing in cold water after being exposed to heat/sun):	A sudden change in temprature weakens the eye.
Doorekshanat h(Looking atdistant items forreduction in the alonger periodaccomodative capacity. of time):	Prolonged viewing of objects strains the very distantcilliary muscles,leading to a len's
Swapnavipary aya(Abnormal sleeping habits):	Divaswapna (daytime sleeping) and nisi jagarana (night arousal) causes Vata and Pitta aggravation,resulting in dryness,while Diva swapna cause Kapha aggravation ,leading to moisture.
Prsakthasamro dhana (contiuous crying oversecetion saveral days):	Prolonged weeping stimulates the lacrimal gland,leading to increased of fliuds.This washes away the nutrients

	and bacteriostatic activity of the conjuctival sac. Evenually,the conjuctival sac and lacrimal apparatus lose their resistance to foreign bodies and infections.
Kopa and Shoka(abnormally high levels of rage and grief):	These are emotional factors that needs to be controlled (dharaniya manasika vega).Kopa increasesPitta and Shoka increasesVata,impacting the balanceof Doshas.Our bodies experience a surge of adrenaline during anxiety attacks,leading to dilated pupils.
Klesha (stress)	Stress,discomfort,and difficulty disturb both physical and mental Doshas,leading to eye problems.
Abhighata:	Minoor irritating injuries,contusions,or perforations can lead to significant eye damage .Without proper eye care,blindness can occur rapidly.Injuries to other stuctures, such as skull base fracture,can result in retrobulbar and retinal hemorrhage,while cranial injuries can cause retinal and vitreous imbalances.
Atimaithuna(excessive sex):	Excessive sexual activity leads to Dhatukshaya,which is the depletion of bodily tissues.Depletion of Shukra dhatu leads to poorva dhatu kshaya,depriviting the eyes of nourishment.
Shukthaaranal aamlanisheva na(Alcoholic beverages):	Suktha and aranala are fermentation-derived substances having toxic effects contrary to ojas.Sour substances are often harmful to the eyes.
Kulatth Nishevana:	Kullattha possesses properties such as Laghu(light),vidahi(burning),kashay rasa (bitter taste with hot potency),katupaka(pungent) ,and ushnaveerya(hot potency).Excessive consumption of Kulatha leads to Datukshaya
Vega vinigraha(suppresion ofnatural urges):	Eye diseases are caused by the suppression of natural urges leads to eye strain ,resulting in tissue

	weakness.
Sukshmaniree kshnath(seein g objects for an extended period of time):	This causes spasm of the ciliary muscles and strain minuteon the lens.
Other factors	It include genetic influences and biological variation in the development of the eye,such as changes in the optical power of the cornea and lens,and an increase in the axial lenghtj of the eyeball.

Samprapti (Pathogenesis)

Achakshushya nidan → Vitiation of doshas Urdhwagamana of doshas through → siras Sthanasamsraya of doshas in patalas → of drishti Timir.

The pathological process of Timir begins with an increase of Doshas at their respectives sites.The movement (Vimarga Gaman) of these elevated Doshas through the Siras towards Drishti and their localization in Patalas is the primary cause of Timir.The localization of Doshas in the Patalas further impairs the functional capacities of patalas,leading to blurred vision or Avyakta Darshan .It also hinders nutrition supply by obstructing the channels responsible for it.Further progression leads to Vihwala Darshana due to involvment of Pishitashrita and Medoashrita Patalas The disease eventually culminates in Lingnasha,or the stage of absolute blindness.The involvement of Malas in Indriya leads to both Upatapa(disease) in Chakshurendriya.

Pathological Factors:

Dosha	Tridosha
Dushya	Rasa,Rakta,Mamsa
Agni	Mandagni leading to Ama formation
Strotas	Mainly Rupavaha siras
Strotodushti	Sang and Vimarg gamana
Rogamarga	The Madhyama as shira is the primary site of affliction
Adhishthan a	Generally Drishti and specificilly Patalas

Purva Rupa(Prodromal features):

Purvarupa is a collection of symptoms that point to the impending onsets of an illness. Among various purvrupa of general eye diseases Toda(eye strain or headache)and ashru agamana (watering eyes) are also observed in initial stages of Myopia.

Clinical Features (Rupa):

The diagnosis of Timira is based on its sign and symptoms.The symptoms of timira vary according to the involvement of different patalas.

Prognosis of Timira

Timira,described as "Paramdarun Vyadhi"signifies that the condition progresses irreversibly and can lead to complete or partial blindness if left untreated.Acharya Vagbhatta explicitly mentions that Timira is ignored by either the physician or the patient ,it will progress to 'kacha',it will advance to 'Linganasha', ultimately leading to blindness for the patient .Acharya Sushruta have described that diseases Timira inflicts four patalas causing Pratham,Dwitiya,Tritiya,Chaturtha Patalgata Timira.Timira is classified into 6 types i.e. Vataj, Pittaj, Kaphaj, Raktaj, Sannipataj, Parimalayi.

Vataj Timir	Pittaj Timir	Kapha j Timir	Raktaj Timir	Sannipataj Timir	Parimlayyi Timir
Patient sufferi ng froataj Timir percie ve objects as if they are movin g,	In Pittaj Timir,t he pt sees flashes resem bling the sun ,glow worms ,rainbo w and	In Kapha j Timir,t he person view all objects as glossy colors such as white,sas	A pt with Raktaj Timir sees all objects in varigat ed colors ,the person sees dark	In sannip ataj Timir, caused by the vitiatio n of all three doshas ,the person sees	hazy, lightni ng. They perceie ve tortuo us inand shape.I n Timir caused by Vata,t he person sees feather s as though covere d with a thin cloth,a ppeari ng unstab le, grubby ,and reddis h times,
					imilar to the colors as varieg ated,si milar to theare not exessi vely small and visuali zes movin g objects in cloudl ess sky. All ary objects
					green, gray,bl ack,an d ad white chama ra or blackis h clouds. The pt can see ,the organ of vision appear s red,an d the person perceie ves as though in darkne ss.
					objects varieg ated colors, as scatter ed images ,and with double or multip ;e images .Objec ts may appear to have abnor mal parts or seen lumino us. When Timir is due to a combi

while at other times, they appear clear and clean. they also see webs, hairs, mosquitoes, and rays of light in front of their eyes.

g lamps objects appear deep blue, like the feathers of a peacock or a partride.

appear as if they are submerged in water. Generally in Kapha j Timir, the person sees objects as unctuous and white, resembling a conch shell, the moon, jasmine flowers,and as though

nation of two or three Doshas, the person experiences symptoms of the involved Dshas and see objects sometimes clearly and sometimes as though covered.

covered with lily.

Ragprapti in Timir

When there is a predominance of any one of the Doshas in this condition, indivisuals perceieve specific colors.For instance,if Vata Dosha predominates,objects apper red; if pitta doshas predominantes,objects appear yellow.these changes in visual perception, according to the predominants doshas, are knows as "Ragprapta Drushti". After Ragprapti in Timir,Siramokshana should be avoided,as this procedure can exacerbate the Doshas,potentially leading to Drushtinasha.

Sadya Asadhyata of Timir

According to Acharya Sushruta	According to Acharya Vagbhata
Pratham Patalashrit Timir is Sadhya,Dwitiya Patalashrit Timir is Krichsadya,and Ragaprapta Tritiya Patalashrit Timir is Asadhya.	All Types of Timir isare Sadhya.Kach is Yapya.and all forms of Lingnasha,except Kaphaja,are Asadhya, as kaphaja Lingnasha is considered treatable by surgery.

Pathya Apathya in Timir

Pathya	Mudga,sita,jeevanti, Vastuk,Patol,Karvell

	ak,Kumara,Vihanga mamsa,Jangal Tava,Lohitshali,Mayuramamsa,Dadim,Draksha,Triphala,Ajaaghrit,Peya,Vilepi,Yush.
Apathya	Ushna,Vidahi,Ruksha Aahar.

Management of Timir

Samanya Chikitsa	As per the dosha, Nasya, Anjana, Mooredhabasti, Basti, tarpan,Lepoa,seka with snehana and Raktmokshana.
Shodhan Chikitsa	1.Virechan- pittaj timir-Anulomana of Doshas Vataj Timira-Milk ,castor oil Raktaj Timira -Triphala Ghrt Kaphaj timir-Trivritta ghee Tridoshaja -Trivritta oil. 2.Nasya- Vataj Timir-Jivantyadi ,Mudgparni tail Pittaj Timir-Ajaghrit, Kaphaj Timir-Ushira,Lodhra,Triphala. 3.Basti- nirooh,anuvasana 4.Siravyadhi- in ragprapta timir
Sthanik Chikitsa	Tarpan- Patoladi,Jeevantyadi,drakshadi Ajans-Chandanadi varti, nayansukhavarti,
Sarvade hika Chikitsa	Ghrit Kalpana- Phaltrikadi,patoladi,Rasanadi,Dashmooladi,Drakshadi,Shatahwadi,Jeevantyadi. Triphala .

Literature of Review

Myopia

Myopia or short sightedness is type of refractive error in which parallel rays of light coming from infinity are focused in front of the retina when accomodation is at rest.Consequently,distant objects appear blurry, while close objects appear normal. Additional symptoms may include headaches and eye strain. Severe myopia is linked with a higher risk of macular degeneration, retinal detechment,cataract, glaucoma.Myopic individuals generally have larger pupils compared to far sighted and emmetropic individuals. This is likely due to requiring less accommodation, resulting in pupil constriction .The prevalence of myopia is increasing among the general population, with various surveys in india reporting rates are 4% to 11%.

Classification of Myopia

Etiological Classification

Axial myopia	Results from an increase in the anteroposterior length of the eyeball.

Curvatural Myopia	Occurs due to increased curvature of the cornea,lens,or both.
Positional myopia	Produced by anterior placement of the crystalline lens in the eye.
Index myopia	Increase in the refractive index of the crystalline lens with nuclear sclerosis.
Myopia due excessive accommodation	Occurs in patient with spasm toof accommodation.

Clinical Classification of Myopia

Simple Myopia	It is the most common type,where the conditionof the eye depends on the optical power of the cornea and the crystalline lens, as well as the axial length.Since the most rapid increase occurs during school age,typically between 8 to 12 years old,it's also known as school myopia.Terms used to describe the combination of myopia and Astigmatism include simple myopic astigmatism,compound myopic astigmatism,and mixed astigmatism.
Degenerative Myopia	It is also known as maliganant, pathological, or progressive myopia,characterized by significant fundus changes such as posterior staphyloma.It is associated with a high refractive error and subnormal visual acuity even after correction.this type of myopia worsen gradually over time.
Nocturnal Myopia	It is also known as night myopia or twilight myopia,where the eye experiences greater difficulty seeing in low illumination areas,despite having normal daytime vision. Essentially,the far point of focus for the eye varies with the level of light.Night Myopia is thought to occur because pupils dilate to allow more light in, which introduces aberretions leading to increased nearsightedness.
pseudo myopia	It is the blurring of distance vision caused by aspasm of the cilliary muscle.
Induced myopia	It is also known as acquired myopia, occurs due to various pharmaceuticals,elevated glucose levels,nuclear sclerosis,or other abnormal conditions.

Grading of Myopia

Myopia can be divided into two groups:

1. Low to moderate myopia("school"myopia,ranging form 0 to -6D)and high myopia or patological myopia(greater than -6D).

Low Myopia	<3.00D
Medium Myopia	3.00 – 6.00D
High Myopia	>6.00D

Pathogenesis of Myopia

Genetics: Family inheritance pattern are well established in familial high myopia,and significant family correlations in refractive errors are observed in school myopia as well.Several studies have shown that children with myopic parents.

Diet and Diabetics

Changes in dietary patterns have led to the hypothesis that hyperglycemia and hyperinsulinemia may induce myopia.

Lag of Accomodation theory

This theory suggets that the high lag of accomodation during near work in myopic eyes causes foveal hyperopic retinal blur,ultimately leading to abnormal axial growth of the eye ans resulkting in myopia.

Mechanical Tension Theory

According to this theory, contraction of the ciliary muscle following accomodation results in forward and inword pulling of the choroid.The tension in the ciliary choroid restricts the equatorial growth of the eye,reducing the ciecumference of the sclera.this leads to amore elongated eye shape and elongation of the axial length, which causes myopia.

Peripheral Refraction

Research suggests that prolonged exposure to lens induced hyparopic defocus accelerates axial length growth in different species,eventually leading to myopia. This indicates that defocus at the fovea influences the growth of eye.

Management of Myopia

Simple myopia can be corrected with spectacles or contact lenses,while high or pathalogical myopia is often linked to potentially blinding condition such retinal detachment and macular degeneration.

Refractive error can be corrected by

Spectacles

- Spectacles for myopia use concave (minus) lenses. These lenses are thinner at the center and thicker at the edges.
- **Function**: Concave lenses diverge light rays before they enter the eye, shifting the focal point backward so that it falls directly on the retina, rather than in front of it .
- **Multifocal Lenses:** Both contact lenses and eyeglasses with multifocal designs can help control

the progression of myopia by altering the focus of light on the retina. **Contact Lenses:** Contact lenses offer a more aesthetic and practical alternative to glasses for many individuals. They provide a wider field of vision and are suitable for various activities.

- **Orthokeratology (Ortho-K):**This involves wearing specially designed rigid gas-permeable contact lenses overnight to temporarily reshape the cornea, improving vision during the day without the need for glasses or contact lenses.

Atropine Eye Drops: Low-dose atropine eye drops have been shown to slow the progression of myopia in children. These drops are typically used under the guidance of an eye care professional.

Pharmacological Treatments: Research is ongoing into other pharmacological treatments that could help manage myopia progression.

Laser Surgery: Procedures such as LASIK (Laser-Assisted In Situ Keratomileusis) and PRK (Photorefractive Keratectomy) can correct myopia by reshaping the cornea. These are usually considered once myopia has stabilized.

Lifestyle Modifications: Encouraging more time spent outdoors, reducing prolonged near work, and following the 20-20-20 rule (taking a 20-second break every 20 minutes to look at something 20 feet away) can help slow the progression of myopia.

Regular Eye Examinations: Routine eye check-ups are crucial to monitor the progression of myopia and adjust treatments as needed.

Education and Awareness: Educating patients and parents about the importance of managing myopia and adhering to prescribed treatments is essential for effective management.

Discussion: Pratham Patalgat Timir as a myopia, specifically Simple Myopia.

- The Ayurvedic notion of Timira corresponds to simple myopia, in which the Prathama Patala is affected by vitiated Doshas, resulting in symptoms such as Avyakta Darsana (blurred vision). The progression of the disease to

deeper layers (Kaca and Linganasa) parallels the worsening of myopia over time.

- Similarity in Symptoms: symptoms described in Prathama Patalgat Timira, such as transient blurriness (Avyakta Darsana rupama), headache (Sirahasaula), eye strain (Aksisula), watering from eyes, and heaviness in eyes, resemble asthenopic symptoms commonly seen in simple myopia.
- Understanding Patalas: The first Patala (Aksi Patala) affected in Timira is considered the outermost layer, while the fourth Patala is considered the innermost. This aligns with modern understanding, where myopia is related to changes in the eye's anatomy, particularly in the outer layers like the cornea and sclera.
- Integration of Ancient Wisdom with Modern Vision Care: By exploring the Ayurvedic concept of Timira alongside myopia, we can integrate ancient wisdom with modern approaches to vision care. This holistic approach emphasizes lifestyle modifications, dietary practices, and specific treatments to address underlying imbalances and manage myopia effectively.
- Comprehensive Eye Health: Bridging ancient Ayurvedic knowledge with modern vision care offers a comprehensive approach to eye health, focusing not only on correcting vision but also on preventing and managing myopia by addressing holistic well-being. This discussion highlights the potential for integrating traditional Ayurvedic wisdom with modern ophthalmology to enhance our understanding and management of myopia, ultimately leading to better vision care practices.

Conclusion

The comparative analysis of symptoms between Prathama Patalagata Timira and myopia, as described by Acarya Susruta and Acarya Vagbhata, reveals striking resemblances to those of simple myopia. Ayurvedic classical texts mention various eye treatments such as Tarpana, Seka, Putapaka, Anjana, and Ascyotana, which have shown desired results in managing Timira. Additionally, eye exercises and appropriate lifestyle modifications are recommended to help control the disease. Myopia, being a common refractive condition affecting clarity of vision, can be

correlated with Prathama Patalagata Timira, which is considered a Dṛstigata roga (ocular disease) in Ayurveda.In essence, "Myopia and Pratham Patalgat Timir: Ancient Wisdom Meets Modern Vision" emphasizes the importance of integrating traditional wisdom into modern vision care practices for improved management and prevention of myopia. It calls for further research into Ayurvedic principles and their correlation with modern scientific understanding to enhance vision care practices.

References

1] Dr.Ambika Data Shashtri, Sushrutsamhita, and Chaukamba Sanskrit santhan,Chapter 1,7, Varanasi, 2001. 2] Ashtanghridya, Chaukhamba Sanskrit, Kaviraj AtridevguptaPrakashna, Varanasi, 2006, Chapters 12 and 13, page 960. 3] Charakasamhita, Dr. Bhrahmanandtripathi, Chaukhamba Subharti Sansthan, Varanasi, 2003. 4] Vangasensamhita, Prachyaprakashana, Varanasi, Dr Rajkumarray, 2010.5]Kaviraj, 5] Bhaishaja Ratnavali,Netrarogchikitsa, page no. 1009 . 6] Ayurveda shrisudrashana shastri, Madhva nidhan, Chaukhmba Sanskrit prakashna , Varanasi, 2005

7] Comment by Acharya Trivikrimatsen Yadav Sharma, Nibhadhsangraha 8] Dalhanachrya, chaukhamba Varanasi, Sanskrit santhan, 2009.8.Part 2, Chapter 16, Numbers 251-163. 9]Comprehensive Ophthalmology, Fourth Edition, New Age International (P) Limited, Publisher, chap.20.PP-475. 10]Parsons's diseases of the eye (1981 revised by Ramanji and Radhika Tondon, nchap8pp-81)1.

11]http://www.researches-in-ayuveda.co.in 12]dovepress.com/myopia-in-india .