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## A Conceptual Review of *Timira* with special reference to Presbyopia

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### ABSTRACT:

Shalakya Tantra is an Ayurvedic branch also known as '*Urdhvanga Chikitsa*' since it focuses on the upper body. The eye is a highly specialised sense organ that primarily serves the function of vision. The most important of all the senses is vision. Almost 90% of knowledge is only perceived via the eyes. Humans rely on eyesight for the majority of their daily tasks. As a result, any impediment to this is a significant disadvantage. As long as one is living, Ayurveda recommends making every effort to protect one's eyes. Clinical symptoms associated to visual disturbances are commonly encountered in *Drishtigata Rogas* in Ayurveda. As a result, all cases of visual disturbance can be grouped together under the *Timira-Kacha-Linganasha* complex. Doshas lodged in the first and second *patala* produce symptoms such as *avyaktadarshan* and difficulties seeing up close. These symptoms are quite similar to the cardinal signs of presbyopia, which is characterised by a physiological insufficiency of accommodation that leads to a progressive loss of near vision. It was noted by ancient acharyas as a result of growing age. Today's erroneous lifestyle is causing premature ageing consequences such as presbyopia, where Ayurveda science's wholesome and rejuvenate approach might help humanity. Hence, Ayurvedic science can be explored to find a better way to manage this ailment. *Pathykaraharvihar*, various *Rasayana Yoga*, *Chakshusya medicines*, *Netrakarma*, *Kriyakalpa*, *Panchkarma*, and other preventive and therapeutic treatments are described in Ayurveda to treat *Timira*.

**Key Words:** *Timira*, *Patala*, *Lingnash*, Presbyopia, Refractive errors

## INTRODUCTION

There are eight branches of Ayurveda, and Shalakya Tantra is one of them. Aetiology, diagnosis and treatment of disorders affecting the eyes, noses, ears, and head above the *Urdhwa jatrugata* are covered in this section. Netra is

regarded as the most important of all the *Indriyas* in this branch. "A person who seeks long life must care for his eyes throughout his life, as there is no difference between day and night for a blind man," the Samhita says of vision's



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importance. From now on, despite his wealth, he will be unable to fully appreciate life's pleasures. Since the loss of vision completely incapacitates a human being, eye protection is of the utmost importance in *Shalakyā tantra*. "*Drushtigatarogas*" refers to 76 *Netravadyhi* explained by Acharya Sushruta, which includes vision-related diseases. Acharya Sushruta explains 12 *Drushtigata roga* and Acharya Vagbhata explains 27 *drushtigatoga*<sup>1,2</sup>.

As crucial as *Drishti*, the *Patalas* have been described as the pathophysiology of *Drushtigata Rogas*, especially *Timira* has been described in terms of *Patala* participation. *Timira* as "*Paramadarunvyadhi*" refers to the fact that the disease progresses in an irreversible manner and may eventually cause entire or partial blindness if not treated<sup>3</sup>. There are six *patalas* in total, four *abhyantara patalas* and two *bahya vartmagata patalas*.<sup>4</sup> When the vitiated doshas reach the first *patala* of the eye, the patient will experience blurred vision, also known as *Avyakta darshana* (Indistinct vision).<sup>5</sup> *Vihwala darshana* (confusing and cloudy vision) characterizes the *Timira* involving the second *patala* along with *gochara vibhrama*, in which the far item appears to be closer while the near object looks to be further away. *Suchipasham na pashyate na pashyate* meaning even after exerting considerable effort, the patient is unable to detect the needle's eye.<sup>6</sup> The symptoms of *avyakta darshan*, i.e. indistinct near vision in *pratham patala*, and *suchipash na pashyati*, i.e. difficulty threading the needle in *Dwitiyapatalgat timir*, are similar to Presbyopia, which is a condition in which close vision is problematic. As a result, presbyopia can be equated to *pratham and dwitiyapatalgata timira*. According to Ashtang Sangrah<sup>7</sup> and Bhavprakash Nighantu<sup>8</sup>, eyesight is affected gradually as one gets older, hence slow vision loss can also be regarded a *Jara* manifestation.

Presbyopia is an inadequacy of accommodation characterised by a progressive decrease in near vision, a decrease in amplitude of accommodation as one ages, or an increase in punctum proximal. Presbyopia sufferers are expected to increase from 1.4 billion in 2020 to 1.8 billion in 2050 globally<sup>10</sup>. Reduced near vision is the most common symptom of presbyopia, and it makes reading books, doing close tasks, and threading the needle difficult. Even among populations who do not use their near vision for tasks other than reading and writing, good near vision is important. As people get older, their lenses lose their elasticity, causing reduction in accommodation causing development of near vision impairment, which is a physiological alteration. It begins in the fourth decade of life and the symptoms last for the rest of one's life.<sup>11</sup> When

eyes lose their youthful capacity to easily adjust from far to near vision, near vision tasks become more difficult, whether it's reading or threading a needle.

*Timira* is described to be *Ayushadhi Sadhya* in Ayurvedic texts, which means it is medically treatable if caught early enough. Sushruta has advocated a variety of therapy procedures for *Timira*, including *Langhna*, *Snehana Nasya*, *Snehpana* (internal use of oil, ghee), *Raktamokshna* (blood letting), *Virechana*, *Basti* etc<sup>12</sup>. These treatments should be repeated on a regular basis. Besides *Pathya Aahar-vihar*, *Netrakarma* (Eye exercise), local therapeutic procedures (*Kriyakalpa*), *Chaksushya dravya*, and *Rasayana yoga*, among others<sup>13</sup>, are described as preventive and curative treatments. All of these treatments aid in the prevention of vision loss and the maintenance of visual acuity.

## AIMS

1. To detail the conceptual aspects of *Patalgata Timir* and Presbyopia
2. To determine and analyse the preventative and therapeutic actions stated in Ayurvedic texts for *Timira*.

## Review

### *Timira*

*Timira* is an eye disease that begins with *Avyakta darshana* and progresses to full blindness (*Linganasha*). The word's literal meaning is "darkness." In Ayurveda texts, no separate etiological elements for *Timira* have been described. As a result, general etiological causes of eye illness must be examined in the case of *Timira*. Its clinical aspects are based on *Patalas* involvement and Dosha vitiation. As a result, the therapy of *Timira* is dependent on the stage and dominance of a particular Dosha, for which Acharyas have described local and systemic management

### Etymology

1. √Tim + Unadi suffix „*Kirach*“ which means: a rise in the amount of watery substance in the eye, followed by a loss of light vision
2. The meaning of *Timira* in *Amarakosha* is "darkness."
3. In *Halayudha Kosha*, *Timira* denotes darkness, which is opposed by the sun.

### Etiological factors

According to different classics, the following are the main causes of *Timira*:

- Acharya Madhava says that all diseases are caused by *Mandagni*, which is a lack of digestive fire. In the same way, *netra rogas* are caused by a person's weak *agnibala*.

- According to Acharya Charaka, *Asatmyendriyarthasamyoga, prajna paratha and parinama* are the causes of diseases.
- All diseases are caused by the forced evacuation or withholding of *adharaneeya vegas*. *Vata* is the main *prakupita dosha* in this situation. So *anulomana* with the right food, drinks, and medicine plays a big role.
- Acharya Charaka<sup>14</sup> grouped the causes into three groups: misuse, overuse, and lack of use of the senses in terms of their function and length of time. He called this "voluntary transgression." That is, staring at an object too much is an example of excessive use, not looking at all is an example of disuse, and seeing objects that are too close, too far, scary, wonderful, disliked, disgusting, deformed, or scary is an example of perverted use.

### General causes of Eye diseases:

Following are the general causes of eye diseases which can also be the causes of *timira*<sup>15</sup>:

1. *Ushnabitaptasyajalapraveshath* (Immediately immersing in cold water after being exposed to heat/sun): A sudden change in temperature would weaken the bonding in the eye muscles, compromising tissue integrity.
2. *Doorekshanath* (Looking at very distant items for a longer period of time.): Looking at very distant objects for a longer period of time causes strain on the ciliary muscles, causing deficiency in the lens's accommodative capacity.
3. *Swapanaviparyaya* (Abnormal sleeping habits): *Divaswapna / nisi jagarana* (abnormal sleeping habits). *Ratrijagarana* (night arousal) causes *Vata and pitta prakopa*, resulting in *rukshatha*. *Diva swapna* (daytime sleeping) causes *Kaphaprakopa*, resulting in *snigdatha* (moistness), while *Ratrijagarana* (night arousal) causes *Vata and pitta prakopa*, resulting in *rukshatha* (dryness).
4. *Prasakthasamrodhana* (continuous crying over several days): Continuous weeping stimulates the lacrimal gland, causing it to secrete additional fluids, which washes away all the nutrients and bacteriostatic activity of the conjunctival sac. The conjunctival sac and lacrimal apparatus eventually lose their resistance to foreign bodies and infections.
5. *Kopa and shoka* (abnormally high levels of rage and grief): These are *dharaniya manasika vega* (emotional factors which has to be controlled). As *kopa* enhances *pitta and shoka increases vayu*, these *manasika vegas* (emotional variables) will have an impact on the dosha balance. Our bodies experience a rush of adrenaline during anxiety attacks, resulting in dilated pupils. As a result of the excess light entering the eye when the pupils are dilated, blurriness can be detected.
6. *Klesha* (Stress): Stress, discomfort, and difficulty vitiate both *shareerika and manasika doshas* (physical and mental tiredness), resulting in eye problems.
7. *Abhigata*: Minor irritating injuries, contusions, or perforations result in significant eye loss. If proper eye care is not provided, blindness will occur quickly. Injury to other structures, such as the skull base fracture, causes retrobulbar and retinal haemorrhage, and cranial injury causes retinal and vitreous imbalance.
8. *Atimathuna (Excessive sex)*: *Dhatukshaya* is the effect of excessive sex (depletion of bodily tissues). *Shukra dhatu kshaya* leads to *poorva dhatu kshaya*, which deprives the eyes of sustenance.
9. *Shukthaaranalaamlanishavana* (Alcoholic beverages): *Suktha and aranala are sandhana dravyas* (fermentation-derived medications) having poisonous effects opposite to *ojas (immunity)*. *Amladravyas* (sour medications) are often detrimental to the eyes.
10. *Kulatth Nishevana*: It has *gunas* (properties) like *Laghu* (bright), *vidahi* (burning), *kashaya rasa* (bitter taste), *katupaka* (pungent), and *ushnaveerya* (excessive usage of horse gram and black gram): *Kulattha hasgunas* (properties) like *Laghu (light)*, *vidahi (burning)*, *kashaya rasa* (bitter taste (hot potency)). *Dathukshaya* is caused by excessive use of *kulattha*.
11. *Vega vinigraha* (Suppression of natural urges): *Netrarogas* are caused by the suppression of *jrumba* (yawning), *asru* (tears), *hikka* (hiccups), *pratishyaya* (rhinitis), and *ksudha* (hunger). Suppression of impulses produces eye strain, which leads to tissue weakness.
12. *Atisweda* (Excessive eye sudation): In *netrarogas*, *only mrudhu sweda* (moderate fomentation) is recommended. *Swedana* is contraindicated in disorders such as *Timira* (cataract).
13. *Dhoomanishvanath*: Excessive exposure to smoke and other pollutants.
14. *Chardhirvighatath*: Controlling the urge to vomit/nausea causes eye strain.
15. *Vamanathiyogath*: "*Akshiorvyavruthi*" is caused by excessive *vamana* therapy (protrusion of eye ball).
16. *Bhashpagrahath* (Suppressing tears during grief): In *ashruvaha srotas*, vitiated *vayu* obstructs the doshas, causing illnesses (lacrimal apparatus).
17. *Sukshma nireekshanath* (seeing minute objects for an extended period of time): This produces ciliary muscle spasm and lens strain.

### **Timira as a complication:**

Ancient texts have indicated *timira* as a complication of several diseases-

1. Acharya Sushruta has mentioned it as a complication of *Pratishyaya*, Excessive bloodletting and Injury to vital parts (Trauma to *Avarta* and *Apanga Marma*).
2. Acharya Charak has mentioned it as a complication of improper Nasal Medication: and *Grahani Roga* (malabsorption syndrome)
3. Acharya Vagbhatta has mentioned it as a complication of *Guggulatiyoga*:

### **Samprapti (Pathogenesis):**

The onset of *Timira's* pathological effects is preceded by an increase in the Doshas at each of their separate Sites. In reference to the *Samprapti of Timira*, Acharya Videha has made it abundantly clear that when the doshas become excessively vitiated internally, pervades the *siras* (vessels), and gets lodged in the first *patala of Drishti*, the patient sees all of the objects as blurry<sup>15</sup>. This is because the doshas are permeating the *siras* (vessels) and getting lodged in the first *patala*. Dalhana is of the opinion that "*Rupavaha Sira*" is what the word "*Sira*" refers to here, and that "*Drishti*" refers to the inner half of the *Drishti*. However, there are only two *Rupavahi Siras*, hence in this context, the word "*Sira*" refers to vessels or channels. *Sirabhi* signifies more than two *Siras*. Since "*Drishtau*" refers to two structures and not the inner part of "*Drishti*," it is commonly interpreted as "two eyes."

The accumulation of doshas in the *patalas* further inhibits the functional capacity of the *patalas*, which ultimately results in *avyakta darshana*, also known as clouded vision. It does this by blocking the channels that are responsible for the supply of nutrients, which has the additional effect of reducing that supply. When the second and third *patalas* become involved, *Drishti* continues to deteriorate; however, the fourth *patala* is where the affliction culminates in *linganasha*, also known as the loss of vision.

### **Purva rupa (Prodromal features):**

*Purvarupa* is a collection of symptoms that point to the impending onset of an illness. Among various *purvarupa* of general eye diseases *Toda* (eye strain or headache) and *Ashru agamana* (watering eyes)<sup>16</sup> are also observed in initial stages of Presbyopia.

### **Rupa (Clinical Features):**

The diagnosis of the disease is based upon the signs and

symptom of the disease. Following are the symptoms of *timira* according to involvement of *patalas*: Table no 1 shows Symptoms of *Timira* according to involvement of *Patalas*.

### **Prognosis of Timira:**

Acharya Vagbhatta explicitly says that if *Timira* is neglected by the physician or patient, it will be transformed into '*Kacha*,' and after '*Kacha*,' it will be converted into '*Linganasha*,' and the patient will become blind<sup>17</sup>. *Timira*, according to Yogaratnakara, is the leading cause of blindness and must be treated promptly. *Timira* in the first *Patala* that has not developed discoloration is treatable, however *Timira* in the second *Patala* that developed discoloration is curable with difficulty. *Timira* of the Third *Patala* is said to be *Yapya*<sup>18</sup>

### **Management of Timira:**

The management involves avoiding the underlying causes, and in more depth, it means balancing out the elevated *Vata* and other *Doshas*.

The *Timira's* treatment depends on the *Dosha's* stage and dominance. Purification procedures like *Nasya* can be used to treat early *Timira* symptoms when the vitiated *Doshas* are still present but haven't spread to the entire eye.

### **Samanya chikitsa:**

In accordance with the presence of *dosha*, *snehana* (*oleation*) and *raktamokshana* (bloodletting) should be administered, as well as *Nasya*, *Anjana*, *Mooredhabasti*, *Basti*, *Tarpana*, *Lepa*, and *Seka*<sup>19</sup>.

### **A. Prophylactic Measures:**

Regular Consumption of preserved *Ghrita*, *Triphala*, *Shatavari*, *Patola*, *Mudga*, *Amalaki*, and *Yava* (barley), as well as *payasa* made from *Shatavari* or *Amalaki* or barley meal cooked with sufficient amount of *Ghrita* and *Triphala* decoction, are prophylactic methods to prevent *Timira*.

### **B. Curative Measures:** Following are the local and systemic curative measures-

a. **Local Measures:** *Tarpana*, *Putapaka*, *Seka*, *Aschyotana* and *Anjana* known as "*Kriyakalpas*" are used in managing the disease<sup>20</sup>.

### **b. Systemic Measures:**

#### **i. Shodhan Chikitsa:**

a) **Virechana:** It is beneficial for *Anulomana of Doshas*, especially vitiated *Pitta*, because the eye is the sight of *Pitta* predominance. Castor oil combined with milk is used in *Vataja Timira*. *Triphla Ghrita* is a general evacuative that is excellent in disorders of *Rakta* and *Pitta*. *Virechan* with

- Ghee processed with *Trivrit* is advised in *Kaphaja* type, while oil processed with *Trivrita* is useful in *Tridoshaja*<sup>21</sup>.
- b) **Nasya:** For *Timira*, a number of *Nasya Prayogas* are described, as the nose is a gate for medicine administration in *Urdhvajatrugata Rogas*.
- c) **Basti:** In *vataja timira, nirooha and anuvasana bastis* are effective because there is no other therapy for vitiated *vata* besides *basti*.
- d) **Siravyadha:** It is mentioned in *Kaphaja Timira, Pittaja Timira, and Raktaja Timira*. In *Ragaprakta timira, Siravyadha* is prohibited<sup>22</sup>.
- ii. **Shamana chikitsa:** *Shamana Chikitsa* (Palliative management) can be divided into:
- a) *Sthanika Chikitsa* (Local measures)
- b) *Sarvadaihika Chikitsa* (systemic measures)
- a) **Sthanika Chikitsa:** *Tarpana with Patoladi ghrita, Jeevantyadi ghrita, Drakshadi ghrita, and Shatahwadi ghrita and Triphala ghrita* are helpful for treating *timira*.
- b) **Saarvadaihika Chikitsa:**
- i. **Ghrita Kalpanas:** Various medicated *ghrita* e.g. *Phalatrikadi Ghrita, Patoladi ghrita, Triphala Ghrita, Mahatriphaladya ghrita, Dwitiya Triphaladya Ghrita, Laghu Triphala Ghrita, Rasnadi ghrita, Dashamoola ghritam, Drakshadi ghrita, Jeevantyadi ghritam, Shatahwadi ghrita* are beneficial in managing *timira*<sup>23,24</sup>
- ii. **Use of Triphala :** In *Pittaja timira*, it is advised to take *triphala* mixed with *ghrita* on a regular basis; in *Vataja timira*, it is indicated to take *triphala* mixed with *taila*; and in *Kaphaja*, it is indicated to take *triphala* mixed with *madhu*.<sup>25</sup>

### Presbyopia:

#### Definition:

Presbyopia is the inability to focus at close distances due to an age-related loss of lens accommodation. It's the most prevalent physiological alteration in the adult eye, and it's assumed to be the source of universal near vision degradation as people become older.

#### Etiology and Pathophysiology of Presbyopia:

Presbyopia refers to an age-related physiological deficiency in adjustment. Sclerosis of the lens, which is related with stiffness of the lens capsule and decreased efficacy of the ciliary muscles with age, is the most significant contributor to this decrease in amplitude of accommodation.

Presbyopia is caused by a decrease of focusing capacity caused by the crystalline lens's flexibility, which makes it less successful in increasing optical power with

accommodation attempts. Tension on the zonules diminishes as the ciliary muscle contracts during accommodation, but a larger, stiffer presbyopic lens fails to rise in optical power to the same amount as a younger, more malleable crystalline lens.

Presbyopia is the inability to focus on close objects due to a decrease in lens accommodation with increasing age. It is the most prevalent physiologic alteration that occurs in the adult eye and is expected to produce universal near vision impairment with advancing age<sup>26</sup>

Following are the theories of manifestation of presbyopia-

1. Changes in the lens capsule's elastic property have a significant influence in the development of Presbyopia. However, many workers have noted that the lens capsule's flexibility does not alter significantly with age.
2. Sclerosis or hardness of the lens: It is widely assumed that sclerosis or hardening of the lens nucleus is the primary cause of Presbyopia, with the forces (capsule elasticity) that ordinarily deform the soft lens during youth no longer being effective. For many years, it was assumed that the hardening of the ageing lens was linked to a drop in water content, especially in the nuclear region. However, despite the fact that this is a common occurrence in other mammalian species, it is now obvious that there is no considerable loss of water in the ageing human lens. The hardness of the lens with age must be attributable to changes in the lens' structural proteins or greater adhesions between lens fibres.
3. Ciliary muscle weakening: Although morphologic changes in the ciliary muscle are known to develop with age, there is little evidence to support the concept of a weakened ciliary muscle. Under the effect of pilocarpine, the ciliary muscle contracts forcefully in Presbyopes as well. Despite their incapacity to shape the crystalline lens, the ciliary muscles remain functioning in old age. Strenk et al. used magnetic resonance imaging to monitor ciliary muscle activity in presbyopes, confirming the lens' fundamental function in presbyopia<sup>27</sup>.

#### Clinical presentation:

The most typical sign of untreated presbyopia is trouble reading at close distances. Early presbyopia is defined by patients complaining of needing more light to read or being able to read better in the morning hour's vs at night, difficulties reading fine text, and their eyes taking too long to focus on a near point. As a result of straining to accommodate the entire day, this is accompanied with asthenopia. Presbyopia usually appears between the ages of 40 and 45, however there is significant inter-individual

variation. Presbyopia may appear earlier in under-corrected hyperopes and later in under-corrected myopes<sup>28</sup>.

#### **Mechanism of Production of Presbyopia:**

According to new researches, the primary cause of presbyopia is linked to changes in the human lens as we age. Contraction of the ciliary muscles in young people causes a shape shift in the flexible lens, which allows for close focussing. As you become older, the lens's centre grows increasingly rigid. The lens appears to become too rigid to change shape at the age of 45-50years.<sup>29</sup> People's eyes gradually lose their capacity to accommodate to focus at close range as they get older. When compared to the eyes of a fifty-year-old adult, which may have less than three dioptres of accommodation, new-born children's eyes have more than twenty dioptres of accommodation. Unless their focusing system is adjusted by glasses, contact lenses, or laser/surgical operations, the consequence is a hazy image up close for elderly people.

#### **Management of Presbyopia:**

1. **Optical Treatment:** The simplest treatment for presbyopia is to use a convex lens to provide additional positive power, often known as near addition. The quantity of near addition is determined by the patient's age, as well as the distance and demands of the job. However, this is just a partial answer because the near addition always blurs the far view.
2. **Alternating vision, Monovision, and Simultaneous vision** are the three therapy methods for presbyopia currently available. Each procedure has advantages and disadvantages, and can be accomplished using optical and/or surgical means.
3. **Medical Management:** The FDA has approved pilocarpine 1.25 percent for topical use in the treatment of presbyopia. Clinical trials demonstrate that 15 minutes after instillation, near and intermediate vision improves for up to 6 hours. The most common adverse effects are headaches and redness.<sup>30</sup>
4. **Intraocular lens implantation** with either a multifocal or accommodating lens<sup>31</sup> is one of the intraocular methods for presbyopia correction. Corneal inlays and laser refractive surgery, which is further separated into monovision LASIK, presbyLASIK, INTRACOR, and photorefractive keratectomy, are examples of extraocular techniques (PRK).<sup>32</sup>
5. **Procedures involving the sclera**, such as Scleral implant and Scleral laser anterior ciliary excision (LaserACE) The presbyopic optical correction must be viewed in context, with factors such as the individual's age,

refraction, body dimensions, specific near-vision environment, and frequent close-range situations all playing a role. Although the situation is universal, it is not always suitable for a generally applicable correction<sup>33</sup>.

## **DISCUSSION**

One of the *Drushtigata Rogas*, *Timir* might induce eyesight problems. Doshas that have been vitiated and lodged in the first three *Patalas*, according to Acharya Sushrut, are then known as "*Timir*" and can lead to a variety of illnesses. '*Lingnasha*' is the term used when they take over the fourth chakra and cause eyesight loss. *Timir* has two stages: *Kacha* and *Lingnasha*. *Timir* is said to occur when doshas lodge in the first two *Patalas*, when they lodge in the third *Patala*, it is called '*Kacha*,' and when they rest in the fourth *Patala*, it is known as '*Lingnash*,'. *Kacha Vyadhi* is not explained by Acharya Sushrut, whereas Acharya Dalhan referred to *Kacha* as "*RagpraptaTimir*" in his description of the subject. *Timir's* symptoms are a result of Dosha vitiation and *Patalas* involvement.

An imbalance in Pitta Dosha can be caused by the consumption of *Apathyakra* and *Achakshushya Ahar-Vihar*, which causes vitiation of all three *Dohas* and the creation of *Timira*.

Blindness (*Lingnash*) can result if *Timira* is not treated, which begins with visual blurring (*Avyktadarshana*). *Vataja*, *Pitajja*, *Kaphajja*, *Raktajja*, *Sannipatika*, and *Parimlayi* are the six varieties of *Timira* defined by Acharyas.

The patient complains of blurred vision when vitiated Doshas enter the first *Patala*. According to Vagbhatta, when Doshas get located in 1st *Patala*, the individual sees objects foggy and sometimes clearly without any apparent cause. In Presbyopia, this is a common complaint.

There may be a rise in blurriness and trouble with near work in patients with vitiated Doshas lodged in the 2<sup>nd</sup> *Patala*, which is a sign of Presbyopia.

On the principle of rejuvenating ocular tissues and detoxifying of the entire body, many therapeutic approaches are outlined in Ayurveda literature.

## **CONCLUSIONS**

*Timir* is a disease in which there is gradual vision loss and other visual symptoms. It has three stages *timira* (first and second *patal affected*), *kacha* (third *patal affected*) & *lingnasha* (fourth *patal affected*). The symptoms of blurred vision in first *patala gata timira* and difficulty in threading the needle i.e. difficulty in near vision relate it to

presbyopia. Ayurveda and modern theories indicate that this disease occurs as result of ageing process. As the near work is more and more done these days hence reserve of accommodation is depleted at a fast pace, the ageing in eyes is occurring very fast hence to meet present day need of use of eyes for most of near work, rejuvenation of eye tissues with various methods explained in Ayurveda can be a boon to manage this illness.

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**Table no 1: Symptoms of *Timira* according to involvement of *Patalas*:**

<i>Patala</i>	Clinical Features	Su. Ut,	B.P.	As. S.	As. H.	Ma.	Y.R.	Vang
<b>First <i>Patala</i></b>	Blurred vision	+	+	+	+	+	+	+
<b>Second <i>Patala</i></b>	Hazyness of vision	+	+	+	+	+	+	+
	Seeing of untrue images such as gnats, hairs, webs, circles, flags, mirages and ear rings	+	-	-	+	+	+	+
	Distant objects seems to be close and near objects looks to be far away	+	+	+	+	+	+	+
	Seeing of untrue activities like rain, cloud and darkness	+	-	-	+	+	+	+
	Difficulty in threading the needle	+	-	-	+	+	+	+
<b>Third <i>Patala</i></b>	Seeing of objects situated overhead and not below	+	+	+	+	+	+	+
	Things look as if shielded with cloths	+	+	+	+	+	+	+
	Particulars like ear / eyes are not visible when watched at any face	+	+	+	+	+	+	+
	Colouring of <i>drishti</i>	+	+	+	+	+	+	+
<b>Fourth <i>Patala</i></b>	Whole impediment of Vision	+	+	+	+	+	+	+